Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	

REPORT AND ORDER

Adopted: May 7, 1997 Released: May 8, 1997

By the Commission (Chairman Hundt and Commissioners Quello and Ness concurring and issuing separate statements; Commissioner Chong concurring in part and dissenting in part and issuing a separate statement):

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I. INTRODUCTION

1. In the Telecommunications Act of 1996 (1996 Act),[1] Congress directed the Commission and states to take the steps necessary to establish support mechanisms to ensure the delivery of affordable telecommunications service to all Americans, including low-income consumers, eligible schools and libraries, and rural health care providers. Specifically, Congress directed the Commission and the states to devise methods to ensure that "[c]onsumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas . . . have access to telecommunications and information services . . . at rates that are reasonably comparable to rates charged for similar services in urban areas."[2] Congress further directed the Commission to define additional services for support for eligible schools, libraries, and health care providers, and directed the Commission to "establish competitively neutral rules . . . to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and non-profit elementary and secondary school classrooms, health care providers, and libraries."[3]

2. This Order sets forth a plan that satisfies all of the statutory requirements, and puts in place a universal service support system that will be sustainable in an increasingly competitive marketplace. Consistent with the explicit statutory principles, our immediate implementation of section 254 is shaped by our commitment to achieve four critical goals. First, we must implement all of the universal service objectives established by the Act, including those for low-income individuals, consumers in rural, insular, and high cost areas, schools, libraries, and rural health care providers.[4] Second, we must maintain rates for basic residential service at affordable levels. We believe that the rates for this service are generally at affordable levels today. Third, we must ensure affordable basic service continues to be available to all users through an explicit universal service funding mechanism. For the

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[1] Pub. L. No. 104-104, 110 Stat. 56. The 1996 Act amends the Communications Act of 1934, 47 U.S.C. §§ 151 *et seq.* (Act). Hereinafter, all citations to the Act and to the 1996 Act will be to the relevant section of the United States Code unless otherwise noted.

[2] 47 U.S.C. § 254(b)(3).

[3] 47 U.S.C. § 254(h)(2)(A). Telecommunications carriers are required to provide service to rural health care providers "at rates that are reasonably comparable to rates charged for similar services in urban areas." 47 U.S.C. § 254(h)(1)(A). Schools and libraries now are entitled under federal law to service "at rates less than the amounts charged for similar services to other parties." 47 U.S.C. § 254(h)(b). In addition, Congress directed the Commission to "enhance . . . access to advanced telecommunications and information services for all public and non-profit elementary and secondary school classrooms, health care providers, and libraries." 47 U.S.C. § 254(h)(2).

[4] *See, e.g.,* 47 U.S.C. §§ 254(b), (h), and (i).

present, we believe we can achieve this goal by maintaining our existing high cost mechanism at current funding levels, picking a platform mechanism by December 1997, and implementing a forward-looking economic cost mechanism for universal service for non-rural carriers starting January 1, 1999. Fourth, we must bring the benefits of competition to as many consumers as possible. To implement this goal, we must, in our access charge reform proceeding, address the implicit subsidies in interstate access charges.

3. Today, we adopt rules that reflect virtually all of the Joint Board's recommendations[5] and fulfill the universal service goals established by Congress. We recognize, however, that future developments in the competitive telecommunications marketplace and the necessary actions of the states may warrant further Commission action to ensure that we create sustainable and harmonious federal and state methods of continuously fulfilling universal service goals. Therefore, we will seek additional factfinding and deliberation by the Joint Board, and further coordination with individual state commissions, during approximately the next fifteen months. With the benefit of further specific recommendations from the Joint Board, specifically on the implementation of support for rural, insular, and high cost areas, this Commission will act not later than August 1998. By adopting in large measure the recommendations of the Federal-State Joint Board and referring several issues to the Joint Board for further review, we commit ourselves to working in close partnership with the states to create complimentary federal and state universal service support mechanisms.

4. This proceeding is part of a trilogy of actions that are focused on achieving Congress's goal of establishing a "pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services to all Americans by opening up all telecommunications markets to competition."[6] The other components of the trilogy are the local competition[7] and

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[5] *See* Federal-State Joint Board on Universal Service, CC Docket No. 96-45, *Recommended Decision*, 12 FCC Rcd 87 (1996).

[6] Joint Explanatory Statement at 1.

[7] Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, *First Report and Order*, 11 FCC Rcd 15499 (1996) (*Local Competition Order*) *stayed in part pending judicial review sub nom. Iowa Utils. Bd. v. FCC*, 109 F.3rd 418 (8th Cir. 1996). *See also* Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, Area Code Relief Plan for Dallas and Houston Ordered by the Public Utilities Commission of Texas, and Administration of the North American Numbering Plan, Second Report and Order, and Memorandum Opinion and Order, 11 FCC Rcd 19392 (*Local Competition Second Report and Order*).

access reform rulemakings.[8]
Pursuant to the mandate of the 1996 Act, these three proceedings are collectively intended to encourage the development of competition in all telecommunications markets.

5. In the *Local Competition Order*,[9] we set forth rules to implement sections 251 and 252 of the Communications Act. As with all of Part II of Title II of the Communications Act, those sections, and the rules implementing them, seek to remove the legal, regulatory, economic, and operational barriers to local telecommunications competition. Sections 251 and 252 provide entrants with the opportunity to compete for consumers in local markets by either constructing new facilities, purchasing access to unbundled network elements, or reselling telecommunication services.

6. Through this Order and our accompanying *Access Charge Reform Order*, we establish the definition of services to be supported by federal universal service support mechanisms and the specific timetable for implementation. We set in place rules that will identify and convert existing federal universal service support in the interstate high cost fund, the dial equipment minutes (DEM) weighting program, Long Term Support (LTS), Lifeline, Link Up, and interstate access charges to explicit competitively neutral federal universal service support mechanisms. We will provide universal service support to carriers serving rural, insular, and high cost areas through a mechanism based on forward-looking economic cost beginning on January 1, 1999, for areas served by non-rural LECs, and establish the process to determine a forward-looking economic cost methodology for areas served by rural LECs. That mechanism will -- based upon cost studies states will conduct during the coming year or, at the state's election, based upon Commission-developed methods -- calculate the forward-looking economic cost of providing service to consumers in a particular rural, insular, or high cost area. In this proceeding, we modify the funding methods for the existing federal universal service support mechanisms so that such support is not generated, as at present, entirely through charges imposed on long distance carriers. Instead, as the statute requires, we will require equitable and non-discriminatory contributions from all providers of interstate telecommunications service. We also take other steps to make federal universal service support mechanisms consistent with the development of local service competition.

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[8] Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing and End User Common Line Charges, CC Docket Nos. 96-262, 94-1, 91-213, and 95-72, *Notice of Proposed Rulemaking,Third Report and Other and Notice of Inquiry* 62 Fed.Reg. 4,670 (rel. Dec. 24, 1996) (*Access Reform NPRM*); *First Report and Order*, FCC 97-158 (adopted May 7, 1997) (*Access Charge Reform Order*). *See also* Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, *Fourth Report and Order*, FCC 97-159 (adopted May 7, 1997).

[9] The pricing provisions and the "pick and choose" rule in the *Local Competition Order* have been stayed. On November 1, 1996, the court reinstated the Commission's "reciprocal compensation" requirements, which dictate how local exchange carriers (LECs) and wireless carriers are compensated for transporting and terminating each other's traffic. *See supra* note 7.

7. When it enacted section 254 of the Communications Act, Congress set forth the principles to guide universal service reform. It placed on the Commission the duty to implement these principles in a manner consistent with the pro-competition purposes of the Act. It also emphasized that the preservation and advancement of universal service was to be the result of federal and state action, stating "[t]here should be specific, predictable and sufficient Federal *and State* mechanisms to preserve and advance universal service."[10] Congress also entrusted the states with a role in universal service, including expressly granting states the authority "to adopt regulations not inconsistent with the Commission's rules to preserve and advance universal service," and requiring every telecommunications carrier that provides intrastate telecommunications services to "contribute, on an equitable and nondiscriminatory basis, in a manner determined by the state, to the preservation and advancement of universal service in that state" when such state establishes universal service support mechanisms.[11] States traditionally have promoted universal service by, among other things, assuring affordable residential access by explicitly and implicitly subsidizing and pricing basic telephone service at levels associated with very high telephone subscribership rates, currently 94.2%.[12]

8. Universal service support mechanisms that are designed to increase subscribership by keeping rates affordable will benefit everyone in the country, including those who can afford basic telephone service. At the simplest level, increasing the number of people connected to the telecommunications network makes the network more valuable to all of its users by increasing its usefulness to them. Increasing subscribership also benefits society in ways unrelated to the value of the network per se. For example, all of us benefit from the widespread availability of basic public safety services, such as 911.

9. Congress also specified that universal service support "should be explicit," and that, with respect to federal universal service support, "every telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and non-discriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service."[13] As explained further in the Joint Explanatory Statement of the Committee of the Conference, Congress intended that, to the extent possible, "any support mechanisms continued or created under new section 254 should

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[10] 47 U.S.C. § 254(b)(5) (emphasis added).

[11] 47 U.S.C. § 254(f).

[12] States also have done much to enhance access in schools and other specific targeted areas, and for low-income consumers and other specific targeted groups.

[13] 47 U.S.C. § 254(d)-(e).

be explicit, rather than implicit as many support mechanisms are today."[14]

10. Today, universal service is achieved largely through implicit subsidies.[15] The Commission currently has in place some explicit support mechanisms directed at increasing network subscribership by reducing rates in high cost areas (the high cost fund and Long Term Support) and at making service affordable for low-income consumers (the Lifeline and Link Up programs). The current "system," however, consists principally of a number of implicit mechanisms at the state and, to a substantially lesser extent, federal levels designed to shift costs from rural to urban areas, from residential to business customers, and from local to long distance service.

11. The urban-to-rural subsidy has been accomplished through the explicit high cost fund mentioned above, and through geographic rate averaging. The result of state requirements that local telephone rates be averaged across the state is that high-density (urban) areas, where costs are typically lower, subsidize low-density (rural) areas. State pricing rules have also in many cases created a business-to-residential subsidy. Most states have established local rate levels such that businesses pay more on a per-line basis for basic local service than do residential customers,[16] although the costs of providing business and residential lines are generally the same.[17] In addition, rates charged for vertical services such as touch tone, conference calling and speed dialing, subsidize basic local service rates. Finally, interstate and intrastate access charges are set relatively high in order to cover certain loop costs not recovered through local rates. These usage-based charges are then recovered through higher usage charges for interstate long distance service. Thus, interstate long distance customers -- and particularly those with higher calling volumes -- indirectly subsidize local telephone rates.

12. Of the three implicit subsidy mechanisms -- geographic rate averaging, subsidizing residential lines via business lines, and interstate access charges -- only the

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[14] Joint Explanatory Statement of the Committee of the Conference (H.R. Rep. No. 458, 104th Cong., 2d Sess.) (Joint Explanatory Statement) at 131.

[15] When we refer to "implicit subsidies" in this discussion we generally mean that a single company is expected to obtain revenues from sources at levels above "cost" (i.e., above competitive price levels), and to price other services allegedly below cost. Such intra-company subsidies are typically regulated by states. An example at the federal level, however, is the geographic averaging of interstate long distance rates. In section 254(g) of the Act, Congress expressly directed that this implicit subsidy continue.

[16] Federal Communications Commission, Common Carrier Bureau, Industry Analysis Division, *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service*, tbls. 2-3 (Mar. 1997).

[17] To the extent businesses tend to be concentrated in areas with relatively dense populations, business loops are shorter and, therefore, less costly to serve.

interstate access charge system has been regulated by the Commission, and this contributes the smallest subsidy of the three. Thus, a number of factors operate today to keep basic local telephone rates low, and Congress ordered that we devise a coordinated federal-state scheme to achieve universal service goals.

13. By our Orders today, we reject the arguments made by some parties that section 254 compels us immediately to remove all universal service costs from interstate access charges.[18] As stated previously, we have met section 254's clear command that we identify the services to be supported by federal universal service support mechanisms, and that we establish a specific timetable for implementation. Under that timetable, we will over the next year identify implicit interstate universal support and make that support explicit, as further provided by section 254(e). Moreover, as with any implicit support mechanism, universal service costs are presently intermingled with all other costs, including the forward-looking economic cost of interstate access and historic costs associated with the provision of interstate access services. We cannot remove universal service costs from interstate access charges until we can identify those costs, which we will not be able to do even for non-rural incumbent local exchange carriers (ILECs) before January 1, 1999.

14. We do not, by our Order today, attempt to identify existing implicit universal service support presently effected through intrastate rates or other state mechanisms, nor do we attempt to convert such implicit intrastate support into explicit federal universal service support. The Commission, in light of section 2(b) of the Communications Act,[19] does not have control over the local rate-setting process, which generally has aimed at ensuring affordable residential rates. States have maintained low residential basic service rates through, among other things, a combination of: geographic rate averaging, higher rates for business customers, higher intrastate access rates, higher rates for intrastate toll service, and higher rates for vertical features. States, acting pursuant to sections 254(f) and 253 of the Communications Act, must in the first instance be responsible for identifying intrastate implicit universal service support. We further believe that, as competition develops, the marketplace itself will identify intrastate implicit universal service support, and that states will be compelled by those marketplace forces to move that support to explicit, sustainable mechanisms consistent with section 254(f). As states do so, we will be able to assess whether additional federal universal service support is necessary to ensure that quality services remain

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[18] *See, e.g., Access Charge Reform Order* at section IV.A.

[19] Section 2(b) of the Act provides that in most cases, "nothing in this Act shall be construed to apply or to give the Commission jurisdiction with respect to . . . charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier." 47 U.S.C. § 152(b).

"available at just, reasonable and affordable rates."[20]

15. Federal universal service support will be distributed based on the interstate portion of the difference between the forward-looking economic cost of providing service and a nationwide revenue benchmark. The amount of support will be explicitly calculable and identifiable by competing carriers, and will be portable among competing carriers, i.e., distributed to the eligible telecommunications carrier chosen by the customer. It will be funded by equitable and non-discriminatory contributions from all carriers that provide interstate telecommunications services. In the *Access Charge Reform Order* that we also adopt today, we direct that federal universal service support received by ILECs be used to satisfy the interstate revenue requirement otherwise collected through interstate access charges. Accordingly, through this Order and the *Access Charge Reform Order*, interstate implicit support for universal service will be identified and removed from interstate access charges, and will be provided through explicit interstate universal service support mechanisms. To the extent that we fail to identify a source of implicit support, we are confident that the marketplace will, as competition develops, highlight it for further Commission attention.

16. We wish to avoid action that directly or indirectly raises the price of the basic residential telephone service that guarantees access to the local telephone network. We also believe, as did the Joint Board,[21] that raising the existing flat-rate charge on every consumer's line for access to interstate telephone service -- the subscriber line charge (SLC) on primary residential lines -- is not desirable, because it could adversely affect the affordability of local service. Therefore, we decide in today's Order and its companion *Access Charge Reform Order* that we will not permit any increase in the primary residential line SLC and will not order the creation of any additional end-user charges for local service over these lines. Our primary reason for not mandating the recovery of universal service contributions through basic rates, directly raising charges for basic access through an increase in the primary residence SLC, or adopting any new end-user charge from the local telephone company to the residential consumer for basic access is that we have high subscribership rates today, and therefore believe that current rate levels are "affordable." We see no reason to jeopardize affordability by raising rate levels.

17. At present, the existing system of largely implicit subsidies can continue to serve its purpose, and our current implementation of section 254 relies principally on the continuation of existing mechanisms, with modifications to make them more consistent with the statutory requirements and principles. This system is not sustainable in its current form in a competitive environment. Implicit subsidies were sustainable in the monopoly environment because some consumers (such as urban business customers) could be charged rates for local

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[20] 47 U.S.C. § 254(b)(1).

[21] Recommended Decision, 12 FCC Rcd at 472.

exchange and exchange access service that significantly exceeded the cost of providing service, and the rates paid by those customers would implicitly subsidize service provided by the same carrier to others. By adoption of the 1996 Act, Congress has provided for the development of competition in all telephone markets.[22] In a competitive market, a carrier that attempts to charge rates significantly above cost to a class of customers will lose many of those customers to a competitor. This incentive to entry by competitors in the lowest cost, highest profit market segments means that today's pillars of implicit subsidies -- high access charges, high prices for business services, and the averaging of rates over broad geographic areas -- will be under attack. New competitors can target service to more profitable customers without having to build into their rates the types of cross-subsidies that have been required of existing carriers who serve all customers.

18. By this Order, therefore, we will retain, with some limited modifications, the existing explicit high cost and low-income support programs until January 1, 1999, but make collection more equitable and nondiscriminatory and allow carriers other than ILECs to receive support; we will continue to coordinate with the states to determine the appropriate extent of universal service support for high cost areas as competition and related state decisions dictate; and we will fund universal service for eligible schools, libraries, and rural health care providers consistent with the statute. The total amount of federal high cost support (both implicit and explicit) will not decline materially, but will be restructured.

19. Over time, it will be necessary to adjust the universal service support system to respond to competitive pressures and state decisions so that the support mechanisms are sustainable, efficient, explicit, and promote competitive entry. We expect to use both prescriptive (i.e., regulatory) and more permissive (i.e., market-based) approaches to complete this task. We expect that reform of both the universal service and access charge systems in accordance with Congress's direction and the principles set forth in the Act and this Order will achieve the following results:

- universal service support will be available for rural, insular, and high cost areas where local rates would otherwise become unaffordable for some users;

- state and federal universal service contributions will be collected equitably and non-discriminatorily from providers of telecommunication services, consistent with the statute's definitions;

- residential customers will be more likely to remain on the network by maintaining or improving today's subscribership rates, and others -- particularly classrooms, libraries, and rural health care providers -- who often lack network connections today

[22] *See, e.g.,* 47 U.S.C. § 253.

will be connected;

• universal service will be sustainable in a competitive environment; this means both that the system of support must be competitively neutral and permanent, and that all support must be targeted as well as portable among eligible telecommunications carriers;

• universal service support will be specific, predictable, and sufficient to deliver service efficiently;

• originating and terminating per-minute access charges will be at forward-looking economic cost-based levels; and

• the total of the subscriber line charge and the presubscribed interexchange carrier (PIC) charge that we adopt today in our access reform proceeding, in combination with federal and state universal service support, will recover the deaveraged non-traffic sensitive costs of serving each customer;

20. Today's Order establishes the new federal universal service system that Congress and the Joint Board envisioned. Our continuing work with the states through the Joint Board process will ensure that this system is sustainable in a competitive marketplace, thus ensuring that universal service is available at rates that are "just, reasonable, and affordable" for all Americans.[23]

[23] 47 U.S.C. § 254(b)(1).

II. EXECUTIVE SUMMARY

A. Principles

21. Section 254(b) sets forth the principles that are to guide the Commission in establishing policies for the preservation of universal service. These principles include:

(1) quality services should be available at just, reasonable, and affordable rates;[24]

(2) access to advanced telecommunications and information services should be provided in all regions of the Nation;[25]

(3) consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas;[26]

(4) all providers of telecommunications services should make an equitable and non-discriminatory contribution to the preservation and advancement of universal service;[27]

(5) there should be specific, predictable and sufficient [f]ederal and [s]tate mechanisms to preserve and advance universal service;[28] and

(6) elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services.[29]

In addition, the Commission may consider such "additional principles" as the Commission and the Joint Board determine are necessary and appropriate for the protection of the public

[24] 47 U.S.C. § 254(b)(1).

[25] 47 U.S.C. § 254(b)(2).

[26] 47 U.S.C. § 254(b)(3).

[27] 47 U.S.C. § 254(b)(4).

[28] 47 U.S.C. § 254(b)(5).

[29] 47 U.S.C. § 254(b)(6).

interest, convenience and necessity and are consistent with the Act.[30] In addition to the principles specified in section 254(b), we agree with the Joint Board and adopt its recommendation that "competitive neutrality" should be among the principles that guide the universal service support mechanisms and rules. We adopt this principle and the principles enumerated by Congress in section 254(b) to preserve and advance universal service while promoting the pro-competitive goals of the 1996 Act.

B. Definition of Universal Service

22. Section 254(c)(1) requires the Commission to establish a definition of telecommunications services that will be supported by universal service support mechanisms. Based on the principles embodied in section 254, and guided by the recommendation of the Joint Board, we find that the definition of supportable services includes: voice grade access to the public switched network, with the ability to place and receive calls; Dual Tone Multifrequency (DTMF) signaling or its functional equivalent; single-party service; access to emergency services, including in some instances, access to 911 and enhanced 911 (E911) services; access to operator services; access to interexchange services; access to directory assistance; and toll limitation services for qualifying low-income consumers. As recommended by the Joint Board, eligible carriers must offer each of the designated services in order to receive universal service support. We find that, consistent with the Joint Board's recommendation, a carrier that currently is unable to provide single-party service may petition its state commission to receive universal service support for a designated period of time while the carrier completes the network upgrades needed to offer single-party service. Further, based on the Joint Board's recognition that some carriers currently may be unable to provide access to E911 service and toll limitation services, carriers may receive, for a specified period of time, universal service support while completing network upgrades required for them to offer these services. In addition, all business and residential connections that are currently supported will continue to be supported until the forward-looking methodology for high cost companies is operational. Finally, as recommended by the Joint Board, we will convene a Federal-State Joint Board to review the definition of universal service on or before January 1, 2001.

C. Affordability

23. Based on the Joint Board's recommendation, we conclude that states should monitor rates and non-rate factors, such as subscribership levels, to ensure affordability. We agree with the Joint Board that there is a correlation between subscribership and affordability and we further agree that joint examination by the Commission and the states of the factors that may contribute to low penetration is warranted in areas, such as insular areas, where

[30] 47 U.S.C. § 254(b)(7).

subscribership levels are particularly low.

D. Carriers Eligible for Universal Service Support

24. We conclude that the plain language of section 214(e)(1) does not permit the Commission or the states to adopt additional criteria as prerequisites for designating carriers eligible telecommunications carriers. Therefore, consistent with the Joint Board's recommendation, we adopt the statutory criteria contained in section 214(e)(1) as the rules for determining whether a telecommunications carrier is eligible to receive universal service support. Pursuant to section 214(e), eligible carriers must offer and advertise all the services supported by federal universal service support mechanisms throughout their service areas using their own facilities or a combination of their own facilities and resale of another carrier's services. We interpret the term "facilities" in section 214(e)(1) to mean any physical components of the telecommunications network that are used in the transmission or routing of the services designated for support under section 254(c)(1). We conclude that our adoption of this interpretation strikes a reasonable balance between adopting a more expansive definition of "facilities," which would undermine the Joint Board's recommendation to exclude from eligibility a carrier offering universal service exclusively through resold services, and adopting a more restrictive definition of "facilities," which we fear would thwart competitive entry into high cost areas. In order to interpret the section 214(e) facilities requirement in a competitively neutral manner, we conclude that a carrier that offers the federally supported services through the use of unbundled network elements, in whole or in part, satisfies the facilities requirement of section 214(e). We adopt the Joint Board's recommendation that eligible carriers not be required to offer the supported services wholly over their own facilities because the statute allows an eligible carrier to offer those services through a combination of its own facilities and resale. We also find, as did the Joint Board, that section 214(e) precludes an eligible carrier from offering the supported services solely through resale in light of the statutory requirement that a carrier provide universal service, at least in part, over its own facilities. Furthermore, consistent with the Joint Board's recommendation, we find that no additional measures are necessary to implement the provisions of section 254(e), which limit the purposes for which universal service funds may be used.

25. We agree with the Joint Board that the statute affords state commissions the primary responsibility for designating service areas served by non-rural carriers. We also concur in the Joint Board's finding, however, that states should exercise this authority in a manner that promotes the pro-competitive goals of the 1996 Act as well as the universal service principles of section 254. We therefore agree with the Joint Board that states should not designate service areas that are unreasonably large because unreasonably large service areas will discourage competitive entry by increasing the expenses associated with such entry. For similar reasons, and to promote competitive neutrality, we also recommend that state commissions not designate service areas that are based on ILECs' study areas. The Act treats service areas served by rural telephone companies differently from non-rural service areas.

Section 214(e)(5) requires a service area served by a rural telephone company to be that company's existing study area, unless the states and the Commission, after taking into account the findings of the Joint Board, establish a different definition. To minimize potential procedural delays associated with the federal-state cooperation that is required to alter the definition of a service area served by a rural carrier, we establish expedited procedures by which the definition of such an area may be changed in accordance with section 214(e)(5). We agree with the Joint Board that retaining the study areas of rural telephone companies as rural service areas is generally consistent with section 214(e)(5), the policy objectives underlying section 254, and with our decision to use a rural ILEC's embedded costs to calculate that company's support under the modified existing high cost mechanisms. We nevertheless encourage states to consider disaggregating a non-contiguous service area of a rural telephone company into service areas composed of the contiguous portions of that area because some wireless carriers may be unable to provide service in non-contiguous service areas. We conclude that the Joint Board correctly recommended that no additional regulations are necessary, at this time, to designate carriers to serve unserved areas. To assist us in monitoring the status of unserved areas, we encourage state commissions to submit to the Commission reports detailing the status of unserved areas in their states.

E. High Cost Support

26. Consistent with the Joint Board's recommendation, we find that a cost methodology based on forward-looking economic cost should be used to calculate the cost of providing universal service for high cost areas because it best reflects the cost of providing service in a competitive market for local exchange telephone service. We believe that a cost methodology can be designed based upon such consistent assumptions as economic depreciation, forward-looking cost of capital, and forward-looking outside plant cost, including reasonable profits. We agree with the Joint Board that the cost methodologies presented to us thus far are not sufficiently reliable to be used to determine universal service support at this time. Because input values that would significantly impact the model outputs, such as the cost of electronic switches and digital loop carrier devices, have never been provided to the Commission, we cannot accept the models before us. In addition, both models lack a compelling design for distributing customers in a particular geographic area, and thus, we cannot develop a reliable model based on the synthesis of the models before us. Consequently, we will issue a Further Notice of Proposed Rule Making (FNPRM) to establish a forward-looking universal service support mechanism based on forward-looking economic cost for non-rural carriers. We anticipate that we will adopt a forward-looking mechanism for non-rural carriers by August 1998, and that it will take effect on January 1, 1999. That mechanism will allow a state either to use the Commission's cost methodology or develop its own cost study, within the guidelines that we will establish, to determine the level of universal service support for carriers in that state. Until the forward-looking mechanism takes effect on January 1, 1999, non-rural carriers will continue to receive high cost loop support and LTS based on the existing universal service mechanisms. As recommended by the state

members of the Joint Board, rural carriers will continue to receive support based on their embedded cost using the current mechanisms with some modifications. We will continue to work with the Joint Board regarding the development of appropriate forward-looking economic cost mechanisms for rural carriers. As recommended by the Joint Board, we will also continue to explore the use of competitive bidding as a mechanism to provide universal service.

F. Support for Low-Income Consumers

27. We adopt the Joint Board's recommendations to make three broad categories of changes to the Lifeline and Link Up programs so that they better comport with our universal service principles and the 1996 Act's renewed concern for low-income consumers. First, we agree with the Joint Board's recommendation to expand Lifeline to make it available in all states, territories, and commonwealths of the United States, modify the state matching requirement, and increase the federal Lifeline support amount. We find that these modifications comply with the principles in sections 254(b)(1) and (3), respectively, that rates should be "affordable" and access should be provided to "low-income consumers" in all regions of the nation. Second, we adopt the Joint Board's recommendation to make the contribution and distribution of low-income support competitively and technologically neutral by requiring equitable and nondiscriminatory contributions from all providers of interstate telecommunications services, consistent with sections 254(d) and (e), and allowing all eligible telecommunications carriers to receive support for offering Lifeline and Link Up service. Third, we adopt the Joint Board's recommendation to provide low-income consumers with access to certain services and policies.

28. Specifically, we agree with the Joint Board that Lifeline consumers should have access to the same services as those supported in rural, insular, and high cost areas: voice grade access to the public switched network, with the ability to place and receive calls; DTMF signaling or its functional equivalent; single-party service; access to emergency services, including in some circumstances, access to 911 and E911; access to operator services; access to interexchange services; and access to directory assistance. In determining the specific services to be provided to low-income consumers, we adopt the Joint Board's reasoning that section 254(b)(3) calls for access to services for low-income consumers in all regions of the nation, and that universal service principles may not be realized if low-income support is provided for service inferior to that supported for other subscribers. In addition, we agree with the Joint Board that Lifeline service should include toll-limitation services, at the customer's request, to the extent that carriers are capable of providing them. We agree with the Joint Board that toll-limitation services will help low-income consumers control their toll bills and consequently be better able to maintain access to telecommunications services, as section 254(b)(3) envisions. We concur with the Joint Board's recommendation to prohibit the disconnection of local service for non-payment of charges incurred for toll calls. We are persuaded by the Joint Board's reasoning that such a rule will help improve subscribership

among low-income consumers, based on studies indicating that disconnection for non-payment of toll charges is a significant cause of low subscribership among low-income consumers. We therefore believe that this rule advances the principles of section 254(b) that rates should be "affordable" and access to telecommunication services should be provided to "low-income consumers." We further find, as did the Joint Board, that local and toll services are distinct services, and therefore carriers providing toll service should take action against consumers who do not pay their toll bills. We also adopt the Joint Board's recommendation to prohibit carriers from requiring service deposits from Lifeline customers who elect toll blocking. Service deposits, which primarily serve to guard against uncollectible toll charges, deter subscribership among low-income consumers and thus run counter to the principle in section 254(b)(3) that low-income consumers should have access to telecommunications services. We therefore find, as did the Joint Board, that consumers who receive toll blocking, which bars the placement of toll calls, should be able to benefit from a rule prohibiting service deposits.

G. Support for Schools and Libraries

29. We concur with the Joint Board's recommendation to provide schools and libraries with discounts on all commercially available telecommunications services, Internet access, and internal connections. This program provides schools and libraries with the maximum flexibility to purchase the package of services they believe will meet their communications needs most effectively. We conclude that sections 254(c)(3) and 254(h)(1)(B) authorize us to permit eligible schools and libraries to receive telecommunications services, Internet access, and internal connections at discounted rates from telecommunications carriers. Because we share the Joint Board's preference that we foster competition from non-telecommunications carriers, we encourage those non-carrier providers to enter into partnerships or joint ventures with telecommunications carriers in order to provide services to schools and libraries. In addition, we adopt the Joint Board's recommendation to provide discounts for Internet access and internal connections provided by non-telecommunications carriers. We adopt this recommendation under the authority of sections 254(h)(2)(A) and 4(i).

30. We agree with the Joint Board's finding that fiscal responsibility compels us to require schools and libraries to seek competitive bids for all services eligible for section 254(h) discounts. Competitive bidding is the most efficient means for ensuring that schools and libraries are informed about all of the choices available to them. In addition, we agree with the Joint Board that the lowest corresponding price, defined for each telecommunications carrier bidding to serve a school or library as the lowest price that carrier charges to similarly situated non-residential customers in its geographic service area for similar services, shall constitute the ceiling for that carrier's competitively bid pre-discount price for interstate rates. We would expect state commissions to require the same for intrastate rates. In areas in which there is only one bidder, that bidder's lowest corresponding price would constitute the pre-discount price.

31. We concur with the Joint Board's recommendation that we adopt discounts from 20 percent to 90 percent for all telecommunications services, Internet access, and internal connections, with the level of discounts correlated to indicators of poverty and high cost for schools and libraries. This approach satisfies section 254(h)(1)(B)'s directive that the discount be an amount that is "appropriate and necessary to ensure affordable access to and use of" the services eligible for the discount, and fulfills our statutory obligation to create specific, predictable, and sufficient universal service support mechanisms. We also adopt the Joint Board's recommendation to establish an annual cap of $2.25 billion on the amount of funds available to schools and libraries.

32. We agree with the Joint Board that all schools falling within the definition contained in the Elementary and Secondary Education Act of 1965 and meeting the criteria of section 254(h), whether public or private, shall be eligible for universal service support. In light of an amendment to section 254(h)(4), enacted in late 1996, we found it necessary to look anew at the definition of library and adopt a definition that is consistent with the directives of section 254(h). We, therefore, adopt the definition of library contained in the Library Services and Technology Act for purposes of section 254(h), but we also conclude that a library's eligibility for universal service funding will depend on its funding as an independent entity. This independence requirement is consistent with both congressional intent and the expectation of the Joint Board that universal service support would flow to an institution of learning only if it is either an elementary or secondary school.

33. We agree with the Joint Board that schools and libraries should be permitted to participate in consortia for purposes of aggregating their demand with others. Because of concerns raised in comments received after adoption of the Recommended Decision that permitting large private sector firms to join with eligible schools and libraries to seek prices below tariffed rates could compromise both federal and state policies of non-discriminatory pricing, we adopt a slightly modified version of the Joint Board recommendation on consortia. We conclude, therefore, that eligible schools and libraries participating in consortia may receive universal service support only if such consortia are composed of other eligible schools and libraries, eligible health care providers, and ineligible public sector (governmental) members, with one exception. A consortium may include ineligible private sector entities if those entities are receiving tariffed rates or market rates from providers that do not file tariffs. We conclude that this approach satisfies both the purpose and the intent of the Joint Board's recommendation because it should allow the consortia containing eligible schools and libraries to aggregate sufficient demand to influence existing carriers to lower their prices and should promote efficient use of shared facilities. We also agree with the Joint Board's recommendation that we interpret section 254(h)(3) to restrict any resale whatsoever of services purchased pursuant to a section 254(h) discount.

34. We concur with the Joint Board's finding that Congress intended to require accountability on the part of schools and libraries. We agree, therefore, with the Joint Board's

recommendation that eligible schools and libraries be required to: (1) conduct internal assessments of the components necessary to use effectively the discounted services they order; (2) submit a complete description of services they seek so that it may be posted for competing providers to evaluate; and (3) certify to certain criteria under penalty of perjury.

H. Support for Health Care Providers

35. Sections 254(c) and 254(h) add health care providers to the list of entities that may benefit from universal service support. Recognizing that section 254 requires that universal service support mechanisms be specific, predictable, and sufficient, we establish support for health care providers subject to a $400 million annual cap. Section 254(h)(1)(A) provides that a health care provider that serves persons who reside in rural areas shall receive telecommunications services necessary for the provision of health care services in a state at rates that are reasonably comparable to those charged for similar services in urban areas in that state. Because section 254(h)(1)(A) specifies that the calculation of the credit for carriers providing the service is to be based on the difference between rates in "comparable rural areas," and the rates charged to the health care provider, we, consistent with the Joint Board recommendation, provide support under this section for telecommunications services for all public and not-for-profit health care providers located in rural areas. Any telecommunications service of a bandwidth capacity up to and including 1.544 Megabits per second (Mbps) that is necessary for the provision of health care services is eligible for support, but there are limits on the services that each rural health care provider may obtain. Telecommunications carriers must charge eligible rural health care providers a rate for each supported service that is no higher than the highest tariffed or publicly available commercial rate for a similar service in the closest city in the state with a population of 50,000 or more people, taking distance charges into account.

36. Section 254(h)(2)(A) directs the Commission to establish "competitively neutral rules to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit health care providers." To meet the goals of this section, and, based on our review of comments filed in response to the Recommended Decision, we adopt mechanisms to provide support for limited toll-free access to an Internet service provider. Each health care provider that lacks toll-free access to an Internet service provider may receive the lesser of the toll charges incurred for 30 hours of access to an Internet service provider or $180 per month in toll charge credits for toll charges imposed for connecting to the Internet.

37. Carriers providing supported telecommunications services to health care providers will be entitled to treat the amount eligible for support as an offset against their annual universal service obligation and receive a reimbursement for any amount by which the support due the carrier exceeds the obligation in any one year. Non-telecommunications providers providing supported services to health care providers will receive direct

reimbursement for the eligible amount.

I. Interstate Subscriber Line Charge/Carrier Common Line Charges

38. We adopt the Joint Board's conclusion that LTS must be removed from carrier common line (CCL) charges. This change will be effectuated in the access charge reform proceeding. Consistent with the Joint Board's recommendation, we provide for payments similar to LTS out of the new universal service support mechanisms to rural telephone companies that currently receive LTS or competitors that win subscribers from such carriers. Consistent with the Joint Board's recommendation, we maintain the current $3.50 cap on the SLC for primary residential and single-line business lines.

J. Administration of Support

39. Section 254(d) states that all carriers that provide interstate telecommunications services must contribute to universal service support mechanisms in an equitable and nondiscriminatory manner. To ensure that all providers of similar services make the same contributions to universal service, we adopt the Joint Board's recommendation that all telecommunications carriers that provide interstate telecommunications services must contribute to the support mechanisms and we issue a list of examples of interstate telecommunications services. In addition, we find that the public interest requires providers of interstate telecommunications on a non-common carrier basis and payphone aggregators to contribute to the support mechanisms pursuant to the Commission's permissive authority over "other providers of interstate telecommunications." We adopt the Joint Board's recommendation that contributors whose contribution would be less than the administrator's administrative cost of collecting the contribution will be exempt from contribution and reporting requirements under the *de minimis* exemption contained in section 254(d).

40. Consistent with the Joint Board, we adopt a contribution assessment methodology that is competitively neutral and easy to administer. Contributions will be assessed against end-user telecommunications revenues, revenues derived from end users for telecommunications and telecommunications services, including SLCs. We adopt the Joint Board's recommendation that support for the programs for schools, libraries, and rural health care providers be assessed based on interstate and intrastate telecommunications revenues. Because the Joint Board did not issue a recommendation regarding the revenue base for the balance of the support mechanisms, we will maintain historic jurisdictional lines and will assess contributions for support for the high cost and low-income programs on interstate telecommunications revenues.

41. Because the Joint Board did not address how contributors would recover their universal service contributions, we maintain historic jurisdictional lines and permit recovery of universal service contributions through the contributing carrier's interstate rates. For ILECs

subject to price caps, we will permit universal service contributions to be added to the carrier's common line basket, and recovered in the same manner as common line charges.

42. Finally, we adopt the Joint Board's recommendation to appoint the National Exchange Carrier Assoication (NECA) the temporary administrator of the support mechanisms, subject to changes in NECA's governance that render it more representative of non-ILEC interests. Consistent with the Joint Board, we shall also create a Federal Advisory Committee to recommend a neutral, third-party permanent administrator of the support mechanisms. We require the administrators to administer the support mechanisms in a neutral and equitable manner, and to keep all support monies separate from all other funds under the control of the administrator or temporary administrator.

III. PRINCIPLES

A. Overview

43. Section 254(b) establishes six principles upon which the Joint Board and the Commission are to base policies for the preservation and advancement of universal service. Section 254(b)(7) allows the Joint Board and the Commission to adopt additional principles necessary for the "protection of the public interest, convenience, and necessity."[31] In this section, consistent with the Joint Board's recommendation, we adopt the principles identified in section 254(b) and the additional principle of competitive neutrality. We concur with the Joint Board's recommendation "that policy on universal service should be a fair and reasonable balance of all of those principles identified in section 254(b) and the additional principle" of competitive neutrality.[32]

B. Background

44. Section 254(b) sets forth principles upon which the Joint Board and the Commission are to base policies for the preservation and advancement of universal service. These principles are:

> (1) QUALITY AND RATES. -- Quality services should be available at just, reasonable, and affordable rates.
>
> (2) ACCESS TO ADVANCED SERVICES. -- Access to advanced telecommunications and information services should be provided in all regions of the Nation.
>
> (3) ACCESS IN RURAL AND HIGH COST AREAS. -- Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.
>
> (4) EQUITABLE AND NONDISCRIMINATORY

[31] 47 U.S.C. § 254(b)(7).

[32] Recommended Decision, 12 FCC Rcd at 101.

CONTRIBUTIONS. -- All providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service.

(5) SPECIFIC AND PREDICTABLE SUPPORT MECHANISMS. -- There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service.

(6) ACCESS TO ADVANCED TELECOMMUNICATIONS SERVICES FOR SCHOOLS, HEALTH CARE, AND LIBRARIES. -- Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services as described in subsection (h).

(7) ADDITIONAL PRINCIPLES. -- Such other principles as the Joint Board and the Commission determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this Act.[33]

45. In the Recommended Decision, the Joint Board recommended that the Commission's universal service policy "be a fair and reasonable balance" of all of the principles identified in section 254(b) and the additional principle of "competitive neutrality."[34] The Joint Board also recommended that the principle of competitive neutrality include the concept of technological neutrality "by allowing the marketplace to direct the development and growth of technology and avoiding endorsement of potentially obsolete services."[35] The Joint Board declined to recommend the adoption of additional principles designed to provide support to groups or services not specifically included under section 254.[36]

C. Discussion

[33] 47 U.S.C. § 254(b).

[34] Recommended Decision, 12 FCC Rcd at 101.

[35] Recommended Decision, 12 FCC Rcd at 101.

[36] Recommended Decision, 12 FCC Rcd at 102-103.

46. Section 254(b)(7) permits the Commission to include among the principles specifically enumerated in section 254(b) "[s]uch other principles as the Joint Board and the Commission determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this Act."[37] Pursuant to section 254(b)(7) and consistent with the Joint Board's recommendation, we establish "competitive neutrality" as an additional principle upon which we base policies for the preservation and advancement of universal service. In adopting this recommendation, we rely upon the Joint Board's reasoning, as set forth immediately below, and incorporate by reference the facts the Joint Board relied upon to support its recommendation.[38]

47. Consistent with the Joint Board's recommendation, we define this principle, in the context of determining universal service support, as:

> COMPETITIVE NEUTRALITY -- Universal service support mechanisms and rules should be competitively neutral. In this context, competitive neutrality means that universal service support mechanisms and rules neither unfairly advantage nor disadvantage one provider over another, and neither unfairly favor nor disfavor one technology over another.

48. We agree with the Joint Board that, as a guiding principle, competitive neutrality is consistent with several provisions of section 254 including the explicit requirement of equitable and nondiscriminatory contributions.[39] We also note that section 254(h)(2) requires the Commission to establish competitively neutral rules relating to access to advanced telecommunications and information services for eligible schools, health care providers, and libraries.[40] The principle of competitive neutrality is also embodied in section 254(e)'s requirement that universal service support be explicit, section 254(f)'s requirement that state universal service contributions be equitable and nondiscriminatory, and section 214(e)'s requirement that any carrier can become an eligible telecommunications carrier if it meets certain statutory criteria.[41] In addition, we agree with the Joint Board that an explicit recognition of competitive neutrality in the collection and distribution of funds and determination of eligibility in universal service support mechanisms is consistent with

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[37] 47 U.S.C. § 254(b)(7).

[38] In adopting various other Joint Board recommendations, as discussed throughout this Order, we hereby expressly rely on the Joint Board's reasoning and incorporate by reference the facts the Joint Board relied upon to support those recommendations.

[39] *See* 47 U.S.C. § 254(d).

[40] *See* 47 U.S.C. § 254(h)(2).

[41] *See* 47 U.S.C. §§ 254(e) - (f), 214(e).

congressional intent and necessary to promote "a pro-competitive, de-regulatory national policy framework."[42] We recognize, however, that given the complexities and diversity of the telecommunications marketplace it would be extremely difficult to achieve strict competitive neutrality. Our decisions here are intended to minimize departures from competitive neutrality, so as to facilitate a market-based process whereby each user comes to be served by the most efficient technology and carrier. We conclude that competitively neutral rules will ensure that such disparities are minimized so that no entity receives an unfair competitive advantage that may skew the marketplace or inhibit competition by limiting the available quantity of services or restricting the entry of potential service providers.

49. We concur in the Joint Board's recommendation that the principle of competitive neutrality in this context should include technological neutrality.[43] Technological neutrality will allow the marketplace to direct the advancement of technology and all citizens to benefit from such development. By following the principle of technological neutrality, we will avoid limiting providers of universal service to modes of delivering that service that are obsolete or not cost effective. The Joint Board correctly recognized that the concept of technological neutrality does not guarantee the success of any technology supported through universal service support mechanisms, but merely provides that universal service support should not be biased toward any particular technologies.[44] We anticipate that a policy of technological neutrality will foster the development of competition and benefit certain providers, including wireless, cable, and small businesses, that may have been excluded from participation in universal service mechanisms if we had interpreted universal service eligibility criteria so as to favor particular technologies. We also agree with the Joint Board's recommendation that the principle of competitive neutrality, including the concept of technological neutrality, should be considered in formulating universal service policies relating to each and every recipient and contributor to the universal service support mechanisms, regardless of size, status, or geographic location.[45]

50. Commenters who express concern about the principle of competitive neutrality contend that Congress recognized that, in certain rural areas, competition may not always serve the public interest and that promoting competition in these areas must be considered, if

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[42] Joint Explanatory Statement at 113.

[43] Recommended Decision, 12 FCC Rcd at 101.

[44] For example, observing that wireless providers use spectrum shared among users to provide service, the Joint Board found that a wireless carrier provides the equivalent of single-party service when it provides a dedicated message path for the length of a party's particular transmission. Recommended Decision, 12 FCC Rcd at 112.

[45] Recommended Decision, 12 FCC Rcd at 101.

at all, secondary to the advancement of universal service.[46] We believe these commenters present a false choice between competition and universal service. A principal purpose of section 254 is to create mechanisms that will sustain universal service as competition emerges. We expect that applying the policy of competitive neutrality will promote emerging technologies that, over time, may provide competitive alternatives in rural, insular, and high cost areas and thereby benefit rural consumers. For this reason, we reject assertions that competitive neutrality has no application in rural areas or is otherwise inconsistent with section 254.

51. We also find no evidence in the record or the legislative history to suggest that the lack of an express reference to competitive neutrality within the provisions of section 254(b) reflects a conscious determination by Congress to exclude this as an additional principle.[47] Rather, we agree with the Joint Board that promoting competition is an underlying goal of the 1996 Act and that the principle of competitive neutrality is consistent with that goal.[48] Accordingly, we conclude that the principle of competitive neutrality is "necessary and appropriate for the protection of the public interest" and is "consistent with this Act" as required by section 254(b)(7).[49]

52. We agree with the Joint Board's recommendation that our universal service policies should strike a fair and reasonable balance among all of the principles identified in section 254(b) and the additional principle of competitive neutrality to preserve and advance universal service. Consistent with the recommendations of the Joint Board, we find that promotion of any one goal or principle should be tempered by a commitment to ensuring the advancement of each of the principles enumerated above.

53. We agree with the Joint Board's conclusion that Congress specifically addressed issues relating to individuals with disabilities in section 255[50] and, therefore, do not establish, at this time, additional principles related to individuals with disabilities for purposes of section 254. Section 255 requires all providers of telecommunications services and manufacturers of telecommunications equipment and customer premises equipment (CPE) to ensure that their equipment and services are accessible to individuals with disabilities, if

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[46] *See, e.g.*, RTC comments at 33.

[47] Western Alliance comments at 10-11.

[48] Joint Explanatory Statement at 113.

[49] 47 U.S.C. § 254(b)(7).

[50] Recommended Decision, 12 FCC Rcd at 102.

readily achievable.[51] In the *Notice of Inquiry* adopted pursuant to section 255, the Commission sought comment on the implementation and enforcement of section 255.[52] The Commission also recently released a *Notice of Inquiry* seeking comment on improving telecommunications relay service (TRS) for individuals with hearing and speech disabilities.[53] In particular, the *TRS NOI* sought comment on the length of TRS calls[54] and the effectiveness of existing rules to encourage carriers to distribute specialized customer premises equipment (SCPE) voluntarily at discounted rates or free of charge.[55] Although we are mindful of the commenters' concerns regarding the affordability of, and access to, telecommunications services by individuals with disabilities, we find that those concerns are more appropriately addressed in the context of the Commission's implementation of section 255.[56] Therefore, we do not adopt principles related to telecommunications users with disabilities in this proceeding.[57]

54. We have considered the requests to promote access to affordable telecommunications services to other groups and organizations, including minorities and community-oriented organizations,[58] but we decline to adopt these proposals as additional principles. Rather, consistent with the Joint Board's recommendation, we address the issue of access to affordable telecommunications services by only the particular groups identified by Congress in section 254: low-income consumers; eligible carriers serving rural, insular, and

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[51] 47 U.S.C. § 255(b) - (c).

[52] Implementation of Section 255 of the Telecommunications Act of 1996, *Notice of Inquiry*, WT Docket No. 96-198, FCC 96-382 (rel. Sept. 19, 1996) *(255 NOI).*

[53] Telecommunications Relay Services, the Americans with Disabilities Act of 1990, and the Telecommunications Act of 1996, *Notice of Inquiry*, CC Docket No. 90-571, FCC 97-7 (rel. Jan. 14, 1997) (*TRS NOI*).

[54] *TRS NOI* at para. 41.

[55] *TRS NOI* at para. 43.

[56] We note that persons with disabilities who qualify under the low-income provisions of section 254(b)(3) will benefit from universal service support to low-income consumers. We recognize that access to health care and education is vital for all populations, and we anticipate that individuals with disabilities will be among those who will benefit from the provisions of section 254 regarding these services.

[57] *See* 47 U.S.C. §§ 225, 255. Section 225 relates to telecommunications services for hearing-impaired and speech-impaired individuals. We also note that interstate TRS, which allows persons with hearing or speech disabilities to communicate with persons who do not have such impairments through the use of a text telephone (TTY), is funded separately from universal service support mechanisms.

[58] *See, e.g.*, Alliance for Community Media comments at 6-9; Public Advocates comments at 3-5.

high cost areas; and eligible education and health care providers.[59] Moreover, with respect to ensuring affordable access to telecommunications services for minorities, we conclude below that the states and the Commission will monitor telephone subscribership levels for all Americans, including minorities, in an effort to determine whether we must take additional action to ensure affordable access to telecommunications services.[60] Accordingly, as recommended by the Joint Board, we decline at this time to adopt additional principles the purpose of which would be to extend universal service support to individuals, groups, or locations other than those identified in section 254.

55. Section 254(b)(4) provides for "equitable and nondiscriminatory contributions,"[61] and section 254(b)(5) provides that support mechanisms should be "specific and predictable."[62] We find that these principles include the concept of "economic efficiency" to the extent that they promote competition through an open and competitively neutral marketplace, and we therefore find it unnecessary to adopt economic efficiency as an additional principle, as one commenter suggests.[63] We also find it unnecessary to designate access to the select services, such as interactive services, that commenters have proposed as additional principles for the Commission's universal service policies.[64] Instead, we consider, as discussed below, whether, consistent with the principles of the 1996 Act, these services should be included in the definition of universal service.[65] Finally, we reject proposals to establish a principle to minimize the size and growth of the universal service fund.[66] Although we take measures in this Order to maintain the size of the universal service support mechanisms at a level that is no higher than necessary to effectuate a comprehensive federal universal service policy, we note that section 254(b)(5) requires the Commission to ensure that there are "predictable and sufficient [f]ederal and [s]tate mechanisms to preserve and

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[59] *See* section 254(b).

[60] *See infra* section V.

[61] 47 U.S.C. § 254(b)(4).

[62] 47 U.S.C. § 254(b)(5).

[63] GSA comments at 3.

[64] *See, e.g.*, Bar of New York comments at 3.

[65] *See infra* section IV.

[66] *See, e.g.*, Sprint PCS comments at 2-4; APC reply comments at 1; PCIA reply comments at 27.

advance universal service."[67] In accordance with this principle, we decline to adopt measures that may restrict our ability to comply with this mandate. Moreover, we anticipate that competition and market-based universal service techniques may eventually limit the size of the support mechanisms by providing affordable, cost-effective telecommunications services in many regions of the nation that are now dependent upon universal service support.

[67] 47 U.S.C. § 254(b)(5). Consistent with the Joint Board's recommendation, we have sought to limit the services eligible for support to only those core services necessary to comply with the mandates of section 254. *See infra* section IV. We are also maintaining the indexed cap on high cost loop support for the period in which carriers will continue to receive high cost loop support based on the existing mechanisms. *See infra* section VII.

IV. DEFINITION OF UNIVERSAL SERVICE: WHAT SERVICES TO SUPPORT

A. Overview

56. Section 254(c)(1) requires the Joint Board to recommend, and the Commission to establish, the services that should be supported by federal universal service support mechanisms. Based on the principles embodied in section 254, and guided by the recommendation of the Joint Board, we define the "core" or "designated" services that will receive universal service support as: single-party service; voice grade access to the public switched network; Dual Tone Multifrequency ("DTMF")[68] signaling or its functional equivalent; access to emergency services including, in some circumstances, access to 911 and Enhanced 911 ("E911");[69] access to operator services; access to interexchange service; access to directory assistance; and toll limitation services for qualifying low-income consumers, as described in section VIII. In order to receive universal service support, eligible carriers must offer each of the designated services. A carrier that currently is unable to provide single-party service may petition its state commission to permit this carrier to receive universal service support for a designated period of time while the carrier completes the network upgrades needed to offer single-party service. In addition, carriers currently incapable of providing access to E911 service and toll limitation services may, for a specific period of time, also receive universal service support while completing network upgrades required for them to offer these services.

57. All business and residential connections that are currently supported will continue to be supported prior to the operation of a forward-looking universal service support methodology. In assessing whether "quality services" are available, consistent with section 254(b)(1), because we will rely on existing data collection mechanisms, including data provided by states, we refrain from imposing additional data collection requirements at this time. Finally, the Commission will convene a Federal-State Joint Board to review the definition of universal service on or before January 1, 2001.[70]

B. Designated Services

1. Background

58. Section 254(c)(1) states that "[u]niversal service [is] an evolving level of

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[68] DTMF facilitates the transportation of signaling through the network, shortening call set-up time.

[69] Enhanced 911 or "E911" service enables emergency service personnel to identify the approximate location of the party calling 911.

[70] 47 U.S.C. § 254(c)(2).

telecommunications services that the Commission shall establish periodically under this section, taking into account advances in telecommunications and information technologies and services."[71] Section 254(c)(2) states that "[t]he Joint Board may, from time to time, recommend to the Commission modifications in the definition of the services that are supported by Federal universal service support mechanisms."[72] Moreover, the 1996 Act's legislative history provides that "[t]he Commission is given specific authority to alter the definition from time to time" in order to "take into account advances in telecommunications and information technology."[73]

59. Section 254(c)(1)(A)-(D) requires the Joint Board and the Commission to "consider the extent to which . . . telecommunications services" included in the definition of universal service:

(1) are essential to education, public health, or public safety;

(2) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;

(3) are being deployed in public telecommunications networks by telecommunications carriers; and

(4) are consistent with the public interest, convenience and necessity.[74]

The legislative history of this section instructs that "[t]he definition . . . should be based on a consideration of the four criteria set forth in the subsection."[75]

60. Section 254(b) establishes the principle that "consumers in all regions of the Nation . . . should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas. . . ."[76] The Joint Board recommended that all of the services and functionalities proposed in the NPRM be included in

[71] 47 U.S.C. § 254(c)(1).

[72] 47 U.S.C. § 254(c)(2).

[73] Joint Explanatory Statement at 131.

[74] 47 U.S.C. § 254(c)(1)(A)-(D).

[75] Joint Explanatory Statement at 131.

[76] 47 U.S.C. § 254(b).

the general definition of services supported under section 254(c)(1).[77] The Joint Board also recommended that access to interexchange service -- meaning the ability of a subscriber to place and receive interexchange calls -- be included as a supported service.[78] Finally, the Joint Board recommended supporting access to directory assistance, which the Board defined as the ability to place a call to directory assistance.[79]

2. Discussion

61. We generally adopt the Joint Board's recommendation and define the "core" or "designated" services that will be supported by universal service support mechanisms as: single-party service; voice grade access to the public switched network; DTMF signaling or its functional equivalent; access to emergency services; access to operator services; access to interexchange service; access to directory assistance; and toll limitation services for qualifying low-income consumers. In arriving at this definition, we have adopted the Joint Board's analysis and recommendation that, for purposes of section 254(c)(1), the Commission define "telecommunications services" in a functional sense, rather than on the basis of tariffed services. The record in this proceeding demonstrates ample support for the inclusion of the services, as defined in a functional sense, recommended by the Joint Board within the general definition of universal service.[80] We find, as the Joint Board concluded, that this definition of core universal services promotes competitive neutrality because it is technology neutral, and provides more flexibility for defining universal service than would a services-only approach.[81] We also adopt the Joint Board's analysis and finding that all four criteria enumerated in section 254(c)(1) must be considered, but not each necessarily met, before a service may be included within the general definition of universal service, should it be in the public interest.[82] We interpret the statutory language, particularly the word "consider," as providing flexibility for the Commission to establish a definition of services to be supported, after it considers the criteria enumerated in section 254(c)(1)(A)-(D). Thus, as discussed below, we conclude that

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[77] Recommended Decision, 12 FCC Rcd at 112-115. The NPRM sought comment on whether the following services should be designated for universal service support: voice grade access to the public switched network, with the ability to place and receive calls; touch-tone; single-party service; access to emergency services, including access to 911 and E911 services; and access to operator services. NPRM at paras. 16, 18-22.

[78] Recommended Decision, 12 FCC Rcd at 121.

[79] Recommended Decision, 12 FCC Rcd at 122.

[80] *See, e.g.,* GSA comments at 8-9; ITI comments at 2; Teleport comments at 3; United Utilities comments at 2.

[81] Recommended Decision, 12 FCC Rcd at 112.

[82] Recommended Decision, 12 FCC Rcd at 112.

the core services that we have designated to receive universal service support are consistent with the statutory criteria in section 254(c)(1).

62. Single-Party Service. We agree with and adopt the Joint Board's conclusion that single-party service is widely available and that a majority of residential customers subscribe to it, consistent with section 254(c)(1)(B).[83] Moreover, we concur with the Joint Board's conclusion that single-party service is essential to public health and safety in that it allows residential consumers access to emergency services without delay.[84] Single-party service also is generally consistent with the public interest, convenience, and necessity because, by eliminating the sharing required by multi-party service, single-party service significantly increases the consumer's ability to place calls irrespective of the actions of other network users and with greater privacy than party line service can assure. In addition, single-party service is being deployed in public telecommunications networks by telecommunications carriers. We adopt the Joint Board's finding that the term "single-party service" means that only one customer will be served by each subscriber loop or access line.[85] Eligible carriers must offer single-party service in order to receive support regardless of whether consumers choose to subscribe to single- or multi-party service. In addition, to the extent that wireless providers use spectrum shared among users to provide service, we find that wireless providers offer the equivalent of single-party service when they offer a dedicated message path for the length of a user's particular transmission. We concur with the Joint Board's recommendation not to require wireless providers to offer a single channel dedicated to a particular user at all times.[86]

63. Voice Grade Access to the Public Switched Network. As recommended by the Joint Board, we conclude that voice grade access includes the ability to place calls, and thus incorporates the ability to signal the network that the caller wishes to place a call.[87] Voice grade access also includes the ability to receive calls, and thus incorporates the ability to signal the called party that an incoming call is coming.[88] We agree that these components are necessary to make voice grade access fully beneficial to the consumer. We agree with and adopt the Joint Board's finding that, consistent with section 254(c)(1), voice grade access to

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[83] Recommended Decision, 12 FCC Rcd at 112.

[84] Recommended Decision, 12 FCC Rcd at 112.

[85] Recommended Decision, 12 FCC Rcd at 112.

[86] Recommended Decision, 12 FCC Rcd at 112.

[87] Recommended Decision, 12 FCC Rcd at 113.

[88] Consistent with the Joint Board's recommendation, we explicitly do not include call waiting, which is a discretionary service, within this definition.

the public switched network is an essential element of telephone service, is subscribed to by a substantial majority of residential customers, and is being deployed in public telecommunications networks by telecommunications carriers. In addition, we find voice grade access to be essential to education, public health, and public safety because it allows consumers to contact essential services such as schools, health care providers, and public safety providers. For this reason, it is also consistent with the public interest, convenience, and necessity. Accordingly, we adopt the Joint Board's recommended definition of voice grade access to the public switched network among the core services designated pursuant to section 254(c)(1).

64. We also adopt the Joint Board's recommendation that voice grade access should occur in the frequency range between approximately 500 Hertz and 4,000 Hertz for a bandwidth of approximately 3,500 Hertz.[89] We note that, although a substantial number of commenters favored supporting the Joint Board's definition of voice grade access,[90] few supported greater bandwidth capacity.[91] We are unpersuaded by Bar of New York's arguments in favor of including among the core services a higher level of telecommunications bandwidth capacity than was recommended by the Joint Board. Bar of New York notes the Joint Board's observation that services such as video-on-demand, medical imaging, two-way interactive distance learning and high definition television might require bandwidth capacity of 1.544 Mbps.[92] Although we conclude in sections X and XI below that certain higher bandwidth services should be supported under section 254(c)(3) for eligible schools, libraries, and rural health care providers,[93] we decline to adopt, pursuant to section 254(c)(1), a higher bandwidth than that recommended by the Joint Board. We conclude, except as further designated with respect to eligible schools, libraries and health care providers, that voice grade access, and not high speed data transmission, is the appropriate goal of universal service policies at this time because we are concerned that supporting an overly expansive definition of core services could adversely affect all consumers by increasing the expense of the

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[89] Recommended Decision, 12 FCC Rcd at 113.

[90] *See, e.g.,* GSA comments at 8-9; ITI comments at 2; Teleport comments at 3; United Utilities comments at 2.

[91] Bar of New York comments at 9-10; MFS comments at 5-11.

[92] Bar of New York comments at 9-10. *See also* MFS comments at 5-11 (recommending that universal service support mechanisms should support data transmissions of at least 1 Mbps).

[93] Pursuant to section 254(c)(3), the Commission may designate for support additional telecommunications services not included in the "core" services designated under section 254(c)(1) for schools, libraries, and health care providers. *See infra s*ections X and XI for a discussion of services that we have designated for eligible schools, libraries, and health care providers may take at a discount and for which the carrier providing those services may receive compensation equal to that discount from universal service support mechanisms.

universal service program and, thus, increasing the basic cost of telecommunications services for all. As discussed above, voice grade access is subscribed to by a substantial majority of residential customers, and is being deployed in public telecommunications networks by telecommunications carriers. In contrast, the record in this proceeding does not demonstrate that the higher bandwidth services and data transmission capabilities advocated by Bar of New York and MFS are, at this time, necessary for the public health and safety and that a substantial majority of residential customers currently subscribe to these services.[94] Congress recognized, however, that the definition of services supported by universal service should advance with technology. Thus, we will periodically re-examine whether changes in technology, network capacity, consumer demand, and service deployment warrant a change in our definition of supported services.[95]

65. Support for Local Usage. We agree with the Joint Board that the Commission should determine the level of local usage to be supported by federal universal service mechanisms and that the states are best positioned to determine the local usage component for purposes of state universal service mechanisms.[96] The Joint Board indicated strong record support for including a local usage component within the definition of universal service.[97] Further, we agree with the Joint Board that, in order for consumers in rural, insular, and high cost areas to realize the full benefits of affordable voice grade access, usage of, and not merely access to, the local network should be supported.[98]

66. We find, consistent with the Joint Board's conclusion, that we have the authority to support a certain portion of local usage, pursuant to the universal service principles adopted above.[99] In particular, section 254(b)(1) states that "[q]uality services should be available at just, reasonable, and affordable rates." As a result, ensuring affordable "access" to those services is not sufficient. We are unpersuaded by commenters who argue

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[94] For example, recent data demonstrate that only .06 percent of residential connections are digital access lines, which are defined for purposes of the Commission's Automated Reporting and Management Information System ("ARMIS") as lines with capabilities of "64 Kpbs or 56 Kpbs or ISDN B channels or other equivalent communications channels." *ARMIS Operating Data Reports*, FCC Report 43-08 (rel. April 1, 1997) (as filed by reporting local exchange carriers).

[95] *See infra* section IV (discussing Joint Board's recommendation that the Commission convene a Federal-State Joint Board to review the definition of universal service on or before January 1, 2001).

[96] Recommended Decision, 12 FCC Rcd at 113.

[97] Recommended Decision, 12 FCC Rcd at 113.

[98] Recommended Decision, 12 FCC Rcd at 113. *See also* Ohio PUC reply comments at 2 (support for local usage is essential to make access to network truly beneficial for consumers).

[99] Recommended Decision, 12 FCC Rcd at 113.

generally against supporting local usage,[100] because those arguments ignore Congress's stated intent that the universal service policies shall be based, *inter alia*, on the principle that services should be available at affordable rates, as set forth in section 254(b)(1). As articulated by Ohio PUC, universal service must encompass the ability to use the network, including the ability to place calls at affordable rates.[101] We find that both access to and use of the public switched network at rates that are "just, reasonable and affordable," are necessary to promote the principles embodied in section 254(b)(1).

67. We are also concerned, however, that consumers might not receive the benefits of universal service support unless we determine a minimum amount of local usage that must be included within the supported services. An eligible carrier, particularly one that recovers a substantial portion of its costs through per-minute charges, could conceivably collect universal service support designed to promote affordable use of the network without, in turn, reducing the per-minute rates charged to its customers. Unless we are able to quantify an amount of local usage that must be provided without additional charge to the consumer by carriers receiving universal service support for serving rural, insular, and high costs areas, we believe there is a potential that the consumer would have to pay additional per-minute fees and would not receive the benefits universal service is designed to promote. We intend to consider this possible scenario in our Further Notice of Proposed Rulemaking ("FNPRM") on a forward-looking economic cost methodology, which will be issued by June 1997. As discussed in section VII below, we are making various changes to the existing universal service support mechanisms -- including making support portable to competing carriers -- that will become effective on January 1, 1998.[102] The Commission will also separately seek further information regarding, for example, local usage, and local usage patterns, in order to determine the appropriate amount of local usage that should be provided by carriers receiving universal service support. We will, by the end of 1997, quantify the amount of local usage that carriers receiving universal service support will be required to provide.

68. At this time, we conclude that it is important to determine a minimum level of local usage in order to implement a forward-looking economic cost methodology, as described below in section VII. Without a prespecified amount of usage, it is not possible for forward-looking economic cost methodologies to determine accurately the cost of serving customers in high cost areas. The forward-looking economic cost methodologies require usage information

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[100] *See, e.g.,* Ameritech comments at 5 (states should support local usage through their own universal service mechanisms).

[101] Ohio PUC reply comments at 2.

[102] *See infra* section VII.D.

to determine capacity requirements, such as switch size.[103]

69. In addition, determining and supporting a minimum level of usage for local service is important to further our principle of competitive neutrality, which includes technological neutrality. Different means of local service entry and competition can have markedly different cost structures. For instance, a wireline telephone system might have large initial "access" costs and relatively low "usage" or per-minute costs. In contrast, a wireless technology might have moderate "access" costs but high per-minute costs than a wireline network. In such a situation, merely supporting "access" without supporting a certain amount of local usage could favor unfairly a particular technology. This result may violate our principle of competitive neutrality.

70. Further, the Joint Board anticipated that competitive bidding may become an efficient method of determining universal service support amounts.[104] Defining minimum levels of usage is critical to the construction of a competitive bidding system for providing universal service to high cost areas. An auction for only the "access" portion of providing local service would be neither competitively nor technologically neutral, because competitors and technologies with low "access" costs yet high per-minute costs would be unduly favored in such an auction. This could result in awarding universal service support to a less efficient technology, which is the precise result that a competitive bidding system is meant to avoid. In addition, a carrier with low access costs could then charge high per-minute rates to consumers, which would increase consumers' overall bills, rather than reducing them, as is the expected result of competition. Such a result is not consistent with the principle in section 254(b)(1) that these "services" are to be "affordable."

71. DTMF Signaling. The Joint Board recommended including DTMF signaling or its digital functional equivalent among the supported services, and we adopt this recommendation.[105] We find that the network benefit that emanates from DTMF signaling, primarily rapid call set-up, is consistent with the public interest, convenience, and necessity, pursuant to section 254(c)(1)(D). Although consumers do not elect to subscribe to DTMF signaling, *per se*, we find, as the Joint Board concluded, that DTMF signaling provides network benefits, such as accelerated call set-up, that are essential to a modern telecommunications network. In addition, we agree with NENA's characterization of DTMF signaling as a potential life- and property-saving mechanism because it speeds access to emergency services. Thus, we find that supporting DTMF signaling is essential to public health and public safety, consistent with section 254(c)(1)(A), and is being deployed in public

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[103] *See infra* section VII.C.

[104] *See* Recommended Decision, 12 FCC Rcd at 266. *See also infra* section VII.

[105] *See* Recommended Decision, 12 FCC Rcd at 114.

telecommunications networks by telecommunications carriers, consistent with section 254(c)(1)(C). We also adopt the Joint Board's conclusion that other methods of signaling, such as digital signaling, can provide network benefits equivalent to those of DTMF signaling. In particular, we note that wireless carriers use out-of-band digital signaling mechanisms for call set-up, rather than DTMF signaling. Consistent with the principle of competitive neutrality, we find it is appropriate to support out-of-band digital signaling mechanisms as an alternative to DTMF signaling.[106] Accordingly, we include DTMF signaling and equivalent digital signaling mechanisms among the services supported by federal universal service mechanisms.

72. Access to Emergency Services. In addition, we concur with the Joint Board's conclusion that access to emergency services, including access to 911 service, be supported by universal service mechanisms.[107] We agree with the Joint Board's conclusion that access to emergency service i.e., the ability to reach a public emergency service provider, is "widely recognized as essential to . . . public safety," consistent with section 254(c)(1)(A).[108] Due to its obvious public safety benefits, including access to emergency services among the core services is also consistent with the public interest, convenience, and necessity. Further, consistent with the Joint Board's recommendation and NENA's comments in favor of supporting access to 911 service, we define access to emergency services to include access to 911 service.[109] Noting that nearly 90 percent of lines today have access to 911 service capability, the Joint Board found that access to 911 service is widely deployed and available to a majority of residential subscribers.[110] For these reasons, we include telecommunications network components necessary for access to emergency services, including access to 911, among the supported services.

73. We also include the telecommunications network components necessary for access to E911 service among the services designated for universal service support. Access to E911 is essential to public health and safety because it facilitates the determination of the approximate geographic location of the calling party. We recognize, however, that the

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[106] Hereafter, we refer to both DTMF signaling and its functional equivalent, digital signaling, as "DTMF signaling."

[107] *See* Recommended Decision, 12 FCC Rcd at 114.

[108] *See* Recommended Decision, 12 FCC Rcd at 114.

[109] Recommended Decision, 12 FCC Rcd at 114; NENA comments at 1.

[110] Recommended Decision, 12 FCC Rcd at 114.

Commission does not currently require wireless carriers to provide access to E911 service.[111] As set forth in the Commission's *Wireless E911 Decision*, access to E911 includes the ability to provide Automatic Numbering Information ("ANI"),[112] which permits that the PSAP have call back capability if the call is disconnected, and Automatic Location Information ("ALI"),[113] which permits emergency service providers to identify the geographic location of the calling party. We recognize that wireless carriers are currently on a timetable, established in the *Wireless E911 Decision*, for implementing both aspects of access to E911.[114] For universal service purposes, we define access to E911 as the capability of providing both ANI and ALI. We note, however, that wireless carriers are not required to provide ALI until October 1, 2001.[115] Nevertheless, we conclude that, because of the public health and safety benefits provided by access to E911 services the telecommunications network components necessary for such access will be supported by federal universal service mechanisms for those carriers that are providing it.[116] We recognize that wireless providers will be providing access to E911 in the future to the extent that the relevant locality has implemented E911 service. In addition, because the *Wireless E911 Decision* establishes that wireless carriers are required to provide access to E911 only if a mechanism for the recovery of costs relating to the provision of such services is in place, there is at least the possibility that wireless carriers receiving

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[111] As the Joint Board recognized, cellular, broadband Personal Communications Service (PCS), and certain Specialized Mobile Radio (SMR) carriers are currently in a transition period during which they are making the technical upgrades needed to offer access to E911. Recommended Decision, 12 FCC Rcd at 114. These carriers need to complete the upgrades necessary to provide all of the E911 services specified in the Commission's Report and Order by 2001. It is significant, however, that a wireless carrier's obligation to provide such E911 services applies only if (1) a locality has implemented E911 service, i.e., if a public safety answering point (PSAP) capable of receiving and utilizing the data elements associated with the E911 services has requested that the carrier provide E911 service and (2) if a mechanism for the recovery of costs relating to the provision of such services is in place. Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Report and Order and Further Notice of Proposed Rulemaking*, FCC 96-264 (rel. July 26, 1996), recon. pending (*Wireless E911 Decision*).

[112] *Wireless E911 Decision* at paras. 63-66.

[113] ALI is a requirement under which "covered carriers must achieve the capability to identify the latitude and longitude of a mobile unit making a 911 call, within a radius of no more than 125 meters in 67 percent of all cases." *Wireless E911 Decision* at para. 71.

[114] *Wireless E911 Decision* at para. 63, 68.

[115] *Wireless E911 Decision* at para. 68.

[116] As set forth below, we adopt a procedure that permits otherwise eligible carriers seeking universal service support to receive a grant of additional time for complying with our general requirement that eligible carriers provide access to E911, when the relevant locality has implemented E911 service, in order to receive universal service support. *See* discussion below in section IV.C.2 addressing feasibility issues associated with providing access to 911 and E911 services.

universal service support will be compensated twice for providing access to E911.[117] We intend to explore whether the possibility is in fact being realized and, if so, what steps we should take to avoid such over-recovery in a Further Notice of Proposed Rulemaking.

74. Consistent with the Joint Board's recommendation, we support the telecommunications network components necessary for access to 911 service and access to E911 service, but not the underlying services themselves, which combine telecommunications service and the operation of the PSAP and, in the case of E911 service, a centralized database containing information identifying approximate end user locations.[118] As noted by the Joint Board and commenters, the telecommunications network represents only one component of 911 and E911 services; local governments provide the PSAP and generally support the operation of the PSAP through local tax revenues.[119] We conclude that both 911 service and E911 service include information service components that cannot be supported under section 254(c)(1), which describes universal service as "an evolving level of telecommunications services."[120] Accordingly, we include only the telecommunications network components necessary for access to 911 and E911 services among the services that are supported by federal universal service mechanisms.

75. Access to Operator Services. In addition, we adopt the Joint Board's recommendation to include access to operator services in the general definition of universal service.[121] As the Joint Board concluded, access to operator services is widely deployed and used by a majority of residential customers.[122] For purposes of defining the core section 254(c)(1) services and consistent with the Joint Board's recommendation, we base our definition of "operator services" on the definition the Commission used to define the duties imposed upon LECs by section 251(b)(3), namely, "any automatic or live assistance to a consumer to arrange for billing or completion, or both, of a telephone call."[123] We reject

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[117] *Wireless E911 Decision* at para. 89.

[118] Recommended Decision, 12 FCC Rcd at 114.

[119] Recommended Decision, 12 FCC Rcd at 114. *See also* Ameritech NPRM comments at 7 (support should be provided for transmission facility that connects subscriber to location manned by public safety personnel but not for underlying service because local taxes generally support underlying service).

[120] 47 U.S.C. § 254(c)(1).

[121] Recommended Decision, 12 FCC Rcd at 115.

[122] Recommended Decision, 12 FCC Rcd at 115.

[123] *Local Competition Second Report and Order* at paras. 13, 110. We explicitly do not, however, include busy line verification and emergency interrupt within the definition of operator services for universal service purposes because the record does not support including these functions. *Cf. Local Competition Second Report*

CWA's argument that access to operator services should include "initial contact with a live operator," which, it contends, is "indispensable for users in public health or safety emergencies."[124] Contrary to the suggestion of CWA, there is no evidence on the record to suggest that automated systems provide inadequate access to operator services for consumers in emergency situations. We also do not require initial contact with a live operator for purposes of operator services because we expect that most consumers will more appropriately rely upon their local 911 service in an emergency situation. To the extent that access to operator services enables callers to place collect, third-party billed, and person-to-person calls, among other things, we find that such access may be essential to public health and is consistent with the public interest, convenience, and necessity.

76. Access to Interexchange Service. We adopt the Joint Board's recommendation to include access to interexchange service among the services supported by federal universal service mechanisms.[125] We conclude that access to interexchange service means the use of the loop, as well as that portion of the switch that is paid for by the end user, or the functional equivalent of these network elements in the case of a wireless carrier, necessary to access an interexchange carrier's network.[126] This decision is consistent with the principle set forth in section 254(b)(3) that "consumers . . . should have access to telecommunications and information services including interexchange services." In addition, we agree with the Joint Board that the majority of residential customers currently have access to interexchange service, thus satisfying a criterion set forth in section 254(c)(1)(B).[127] Access to interexchange service also is widely deployed in public telecommunications networks by telecommunications carriers. Further, as observed by the Joint Board and commenters, access to interexchange service is essential for education, public health, and public safety, particularly for customers who live in rural areas and require access to interexchange service to reach medical and emergency services, schools, and local government offices.[128] For these reasons, access to interexchange service also meets the public interest, convenience, and necessity criterion of

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and Order at para. 111 (concluding that busy line verification and emergency interrupt are forms of operator services).

[124] CWA reply comments at 4.

[125] Recommended Decision, 12 FCC Rcd at 121-122.

[126] For an interexchange call, the IXC rather than the end user currently pays for switching costs. To the extent that, under the access charge rate structure rules we adopt today, the end user may pay for a portion of the costs of line ports used to connect the loop to the local switch, which is used to access the IXC's network, that portion will be supported by universal service support mechanisms. *See Access Charge Reform Order* at section III.B.

[127] Recommended Decision, 12 FCC Rcd at 122.

[128] Recommended Decision, 12 FCC Rcd at 122.

section 254(c)(1)(D).

77. Regarding GCI's argument that interexchange service should not be supported because it is a competitive service, we emphasize that universal service support will be available for access to interexchange service, but not for the interexchange or toll service.[129] We find that the record does not support including toll service among the services designated for support, although, as discussed in section V below, we find that the extent to which rural consumers must place toll calls to reach essential services should be considered when assessing affordability. Nevertheless, universal service should not be limited only to "non-competitive" services. One of the fundamental purposes of universal service is to ensure that rates are affordable regardless of whether rates are set by regulatory action or through the competitive marketplace. GCI's argument implies that, if there were multiple carriers competing to provide, for example, basic dialtone service at $1000 per month, there could be no universal service support because the price was set through competition. Such a result would be inconsistent with Congress's intentions to preserve and advance universal service in adopting section 254. We note that section 254(k), which forbids telecommunications carriers from using services that are not competitive to subsidize competitive services, is not inconsistent with our conclusion that it is permissible to support competitive services.[130]

78. Consistent with the Joint Board's recommendation, we do not include equal access to interexchange service among the services supported by universal service mechanisms.[131] Equal access to interexchange service permits consumers to access the long distance carrier to which the consumer is presubscribed by dialing a 1+ number. As discussed below in section VI, including equal access to interexchange service among the services supported by universal service mechanisms would require a Commercial Mobile Radio Service (CMRS) provider to provide equal access in order to receive universal service support. We find that such an outcome would be contrary to the mandate of section 332(c)(8), which prohibits any requirement that CMRS providers offer "equal access to common carriers for the provision of toll services."[132] Accordingly, we decline to include equal access to interexchange service among the services supported under section 254(c)(1).

79. Contrary to Ameritech's argument, competitive neutrality does not require that, in areas where incumbent LECs are required to offer equal access to interexchange service,

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[129] GCI reply comments at 10-11.

[130] *See* 47 U.S.C. § 254(k).

[131] Recommended Decision, 12 FCC Rcd at 122.

[132] Section 332(c)(8) states that CMRS providers shall not be "required to provide equal access to common carriers for the provision of toll service." 47 U.S.C. § 332(c)(8).

other carriers receiving universal service support in that area should also be obligated to provide equal access.[133] As discussed in section VI below, statutory and policy considerations preclude us from imposing "symmetrical" service obligations on all eligible carriers, including the obligation to provide equal access to interexchange service, as a condition of eligibility under section 214(e). We note that the Commission has not required CMRS providers to provide dialing parity[134] to competing providers under section 251(b)(3) because the Commission has not yet determined that any CMRS provider is a LEC.[135] We seek to implement the universal service provisions of section 254 in a manner that is not "biased toward any particular technologies," consistent with the Joint Board's recommendation.[136] In light of the provision of section 332(c)(8) stating that non-LEC CMRS providers are statutorily exempt from providing equal access[137] and because the Commission has not determined that any CMRS providers should be considered LECs,[138] we find that supporting equal access would undercut local competition and reduce consumer choice and, thus, would undermine one of Congress's overriding goals in adopting the 1996 Act.[139] Accordingly, we do not include equal access to interexchange carriers in the definition of universal service at

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[133] *See infra* section IV.

[134] The term "dialing parity" means "that a person that is not an affiliate of a local exchange carrier is able to provide telecommunications services in such a manner that customers have the ability to route automatically, without the use of any access code, their telecommunications to the telecommunications services provider of the customer's designation from among two or more telecommunications services providers (including such local exchange carrier)." 47 U.S.C. § 153(15).

[135] *See Local Competition Second Report and Order* at para. 29. Pursuant to section 3(26), the term "local exchange carrier . . . does not include a person insofar as such person is engaged in the provision of a commercial mobile service under section 332(c), except to the extent that the Commission finds that such service should be included in the definition of such term." In adopting rules to implement the dialing parity obligations of section 251(b)(3), the Commission expressly concluded that, for purposes of that section, CMRS providers are not LECs. *Local Competition Second Report and Order* at para. 29. Under section 332(c)(8), if, in the future, the Commission determines that CMRS providers should be treated as LECs, it may then "prescribe regulations to afford subscribers unblocked access to the provider of telephone toll services of the subscriber's choice through the use of a carrier identification code assigned to such provider or other mechanism" if the Commission determines that "subscribers to [commercial mobile services] are denied access to the provider of telephone toll services of the subscriber's choice, and that such denial is contrary to the public interest, convenience, and necessity."

[136] Recommended Decision, 12 FCC Rcd at 101.

[137] 47 U.S.C. § 332(c)(8).

[138] *Local Competition Second Report and Order* at para. 29.

[139] *See* Joint Explanatory Statement at 113 ("to provide for a pro-competitive, de-regulatory national policy framework").

this time.

80. Access to Directory Assistance and White Pages Directories. We also adopt the Joint Board's recommendation to include access to directory assistance, specifically, the ability to place a call to directory assistance, among the core services pursuant to section 254(c)(1).[140] Access to directory assistance enables customers to obtain essential information, such as the telephone numbers of government, business, and residential subscribers. We agree with and adopt the Joint Board's analysis and conclusion that directory assistance is used by a substantial majority of residential customers, is widely available, is essential for education, public health, and safety, and is consistent with the public interest, convenience, and necessity.[141] Accordingly, we conclude that providing universal service support for access to directory assistance is consistent with the statutory criteria of section 254(c)(1).

81. We further agree with the Joint Board's recommendation not to support white pages directories and listings.[142] We concur with the Joint Board's determination that white pages listings are not "telecommunications services" as that term is defined in the Act.[143] We disagree with West Virginia Consumer Advocate's assertion that it is inconsistent to support access to directory assistance, but not white pages directory listings.[144] As the Joint Board recognized, unlike white pages directories and listings, access to directory assistance is a functionality of the loop and, therefore, is a service in the functional sense.[145] While we conclude that white pages directories do not meet the statutory requirements of section 254(c)(1), we find that they provide consumers with valuable information, encourage usage of the network, and may facilitate access to telecommunications and information services.[146] For these reasons, we encourage carriers to continue to make white pages directories available to consumers.

82. Toll Limitation Services. Additionally, we include the toll limitation services

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[140] Recommended Decision, 12 FCC Rcd at 122.

[141] Recommended Decision, 12 FCC Rcd at 122-23.

[142] A white pages directory is a compilation of the individual white pages listings.

[143] *See* 47 U.S.C. § 153(46).

[144] West Virginia Consumer Advocate comments at 2. *See also* Ohio PUC comments at 5; CWA reply comments at 4.

[145] Recommended Decision, 12 FCC Rcd at 122.

[146] In addition, we note that section 271(c)(2)(B)(viii) requires that BOCs, prior to providing interLATA service, provide white pages directory listings for customers of competing carriers' telephone exchange service. 47 U.S.C. § 271(c)(2)(B)(viii).

for qualifying low-income consumers, as discussed more fully below in section VIII, among those that will be supported pursuant to section 254(c). In the Recommended Decision, the Joint Board concluded that Lifeline customers should have access to toll control services, at the customer's option, and at no charge, based on data showing that uncontrollable toll charges were a major factor in low subscribership levels among low-income consumers.[147] Although the record does not indicate that a majority of residential subscribers currently subscribe to toll limitation services, the Joint Board found that telecommunications carriers are deploying toll limitation services in public telecommunications networks, consistent with section 254(c)(1)(C).[148] We find that including these services within the supported services is essential to the public health and safety because, as discussed in section VIII below, toll limitation services will help prevent subscribership levels for low-income consumers from declining. Thus, we find that toll limitation services will promote access to the public switched network for low-income consumers[149] and, therefore, are in the public interest, consistent with the criteria of section 254(c)(1).[150]

83. Access to Internet Services. We agree with the Joint Board's determination that Internet access consists of more than one component.[151] Specifically, we recognize that Internet access includes a network transmission component, which is the connection over a LEC network from a subscriber to an Internet Service Provider, in addition to the underlying information service. We also concur with the Joint Board's observation that voice grade access to the public switched network usually enables customers to secure access to an Internet Service Provider, and, thus, to the Internet.[152] We conclude that the information service component of Internet access cannot be supported under section 254(c)(1), which describes universal service as "an evolving level of telecommunications services."[153] Furthermore, to the extent customers find that voice grade access to the public switched network is inadequate to provide a sufficient telecommunications link to an Internet service provider, we conclude that such higher quality access links should not yet be included among

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[147] Recommended Decision, 12 FCC Rcd at 285.

[148] Recommended Decision, 12 FCC Rcd at 286. *See infra* section VIII.

[149] *See infra* section VIII for a discussion of the increased penetration rates in areas in which Lifeline and Link Up programs are available for low-income consumers.

[150] *See* 47 U.S.C. § 254(c)(1).

[151] Recommended Decision, 12 FCC Rcd at 323. Internet access consists of both a network transmission component and an information service component.

[152] Recommended Decision, 12 FCC Rcd at 123.

[153] *See infra* section X for a discussion of information services.

the services designated for support pursuant to section 254(c)(1). We find that a network transmission component of Internet access beyond voice grade access should not be supported separately from voice grade access to the public switched network because the record does not indicate that a substantial majority of residential customers currently subscribe to Internet access by using access links that provide higher quality than voice grade access.[154] In addition, although access to Internet services offers benefits that contribute to education and public health, we conclude that it is not *"essential* to education, public health, or public safety" as set forth in section 254(c)(1)(A).[155] We conclude that our decision not to support this component is consistent with the Joint Board's general finding that support beyond that provided for voice grade access to the public switched network is not warranted at this time.[156] Under the more expansive authority granted in section 254(h), however, we agree that supporting Internet access under that section is consistent with Congress's intent to support Internet access for eligible schools, libraries, and rural health care providers.[157] Finally, just as the Joint Board concluded that increasing demand for Internet service will provide consumers with broader accessibility to Internet service providers,[158] we anticipate that the demand for Internet service will cause carriers to offer higher bandwidth services and data rates for residential customers.

84. Other Services. We conclude that, at this time, no other services that commenters have proposed to include in the general definition of universal service substantially meet the criteria set forth in section 254(c)(1).[159] We emphasize that this section also defines universal service as "evolving" and, therefore, as described below, the Commission will review the services supported by universal service mechanisms no later than January 1, 2001. In addition, as discussed below in section III, we find that the issues relating to the telecommunications needs of individuals with disabilities, including

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[154] Based on recent surveys, we estimate that approximately 6 percent of all residential Internet subscribers have access faster than dial-up access. *See* "US On-Line Population Reaches 47 Million - Intelliquest Survey Results," Internet IT Informer, February 2, 1997 (concluding that 22.3 million people in the United States primarily access the Internet from home); "Commercial Internet Exchange Internet Service Provider Study," March 1997, submitted with Commercial Internet Exchange comments in CC Docket 96-263 (March 24, 2997) (indicating that 94 percent of residential Internet users use dial-up access, five percent use Integrated Services Digital Network (ISDN), and one percent use other, presumably higher-speed, services to access the Internet).

[155] 47 U.S.C. § 254(c)(1)(A) (emphasis added).

[156] Recommended Decision, 12 FCC Rcd at 123.

[157] *See infra* section X.

[158] Recommended Decision, 12 FCC Rcd at 123.

[159] We address the proposal of Catholic Conference with respect to supporting voice messaging services for individuals without residences in section VIII in our discussion of support for low-income consumers.

accessibility and affordability of services, will be addressed in the context of the Commission's implementation of section 255.[160]

85. Moreover, we disagree with the view expressed by Benton that universal service should be defined by transport and termination requirements rather than services.[161] As discussed above, we concur with the Joint Board's recommendation that, for purposes of section 254(c)(1), the Commission define telecommunications services in a functional sense. We find that Benton's concerns that this approach will favor "carriers traditionally associated with" the network elements needed to provide the designated services are unfounded.[162] Contrary to Benton's contention, the record does not contradict the Joint Board's conclusion that none of the designated services creates a barrier to entry for potential new competing carriers or otherwise impedes the ability of wireless and other telecommunications carriers to provide universal service.[163]

86. Further, we do not adopt the proposal advocated by GTE and others to require eligible carriers to offer the designated services on an unbundled basis.[164] As discussed more fully below in section VI, based on our analysis of section 214(e), we conclude that the statutory language set forth in that section prevents the Commission and the states from imposing on eligible carriers requirements that are not included in the statutory language.[165] Even assuming that section 214(e) permitted the Commission to impose requirements on eligible carriers, we would not be inclined to adopt GTE's proposal because we find that, in areas in which there is no competition, states are charged with setting rates for local services and, where competing carriers are offering universal services, consumers would choose to receive service from the carrier that offers the service package that best suits the consumer's needs.

87. Moreover, we are mindful of the concern expressed by commenters[166] that an overly broad definition of universal service might have the unintended effect of creating a barrier to entry for some carriers because, as discussed below in section IV.C.2, carriers must

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[160] *See supra* section III.

[161] Benton comments at 2.

[162] Benton comments at 2.

[163] Recommended Decision, 12 FCC Rcd at 115.

[164] GTE comments at 16. *See also* Ameritech comments at 9 n.15; TCA comments at 3-4.

[165] 47 U.S.C. § 214(e).

[166] *See, e.g.,* CTIA comments at 9.

provide each of the core services in order to be eligible for universal service support. We concur with the Joint Board's conclusion that conditioning a carrier's eligibility for support upon its provision of the core services will not impose an anti-competitive barrier to entry.[167] We note that other services proposed by commenters, at a later time, may become more widely deployed than they are at present, or otherwise satisfy the statutory criteria by which we and the Joint Board are guided. When reviewing the definition of universal service, as anticipated by section 254(c)(2), the Commission and the Joint Board, after considering the implications for competition, may find that additional services proposed by commenters should be included in our list of core services.

C. Feasibility of Providing Designated Services

1. Background

88. Section 214(e)(1)(A) requires eligible carriers to "offer the services that are supported by [f]ederal universal service support mechanisms."[168] The Joint Board recommended that, pursuant to section 214(e), carriers designated as eligible telecommunications providers should be required to offer all of the services designated for universal service support.[169] Recognizing that some incumbent LECs may currently be unable to provide single-party service, however, the Joint Board recommended that state commissions be permitted to grant a transition period to otherwise eligible carriers that initially are unable to provide single-party service but only upon a finding that "exceptional circumstances" warrant a transition period.[170] In addition, the Joint Board recommended supporting access to E911 service, to the extent that eligible carriers currently are capable of providing such access and the relevant locality has chosen to implement E911 service.[171] Similarly, the Joint Board recommended that toll blocking or control services should be supported when provided to eligible low-income consumers, to the extent that eligible carriers are technically capable of providing these services.[172]

2. Discussion

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[167] Recommended Decision, 12 FCC Rcd at 128.

[168] 47 U.S.C. § 214(e)(1)(A).

[169] Recommended Decision, 12 FCC Rcd at 128.

[170] Recommended Decision, 12 FCC Rcd at 129.

[171] Recommended Decision, 12 FCC Rcd at 130.

[172] Recommended Decision, 12 FCC Rcd at 130.

89. Consistent with the Joint Board's recommendation, we conclude that eligible carriers must provide each of the designated services in order to receive universal service support.[173] In three limited instances, however, we conclude that the public interest requires that we allow a reasonable period during which otherwise eligible carriers may complete network upgrades required for them to begin offering certain services that they are currently incapable of providing. Given the Joint Board's finding that not all incumbent carriers are currently able to offer single-party service,[174] we find that excluding such carriers from eligibility for universal service support might leave some service areas without an eligible carrier, especially in areas where there currently is no evidence of competitive entry. Therefore, as to single-party service, we will permit state commissions, upon a finding of "exceptional circumstances," to grant an otherwise eligible carrier's request that, for a designated period, the carrier will receive universal service support while it completes the specified network upgrades necessary to provide single-party service. This is consistent with the Joint Board's recommendation that state commissions be permitted to grant requests by otherwise eligible carriers for a period to make necessary upgrades if they currently are unable to provide single-party service.[175]

90. In addition, we conclude, consistent with the Joint Board's finding that some carriers are not currently capable of providing access to E911 service,[176] that it may be warranted to provide universal service support to carriers that are not required under Commission rules to provide E911 service and to carriers that are completing the network upgrades required for them to provide access to E911 service. As recommended by the Joint Board,[177] access to E911 will be supported only to the extent that the relevant locality has implemented E911 service.[178] If the relevant locality has not implemented E911 service, otherwise eligible carriers that are covered by the Commission's *Wireless E911 Decision* cited above are not required to provide such access at this time to qualify for universal service support. Even in cases in which the locality has implemented E911 service, some wireless carriers are not currently capable of providing access to E911 service. Although we have directed cellular, broadband PCS, and certain SMR carriers to provide access to E911 service,

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[173] Recommended Decision, 12 FCC Rcd at 128.

[174] Recommended Decision, 12 FCC Rcd at 129, 130.

[175] Recommended Decision, 12 FCC Rcd at 129.

[176] Recommended Decision, 12 FCC Rcd at 130.

[177] Recommended Decision, 12 FCC Rcd at 114.

[178] In fact, in the wireless context, we made the wireless carriers' obligation to provide E911 service contingent on (1) a request from a PSAP that is capable of receiving and utilizing the data elements associated with the services; and (2) the establishment of a cost recovery mechanism. *Wireless E911 Decision* at para. 11.

we set a five-year period during which these carriers must make the technical upgrades necessary to offer access to E911 service.[179] Consequently, requiring carriers to provide access to E911 service at this time may prevent many wireless carriers from receiving universal service support during the period that we have already determined to be appropriate for wireless carriers to complete preparations for their offering E911 service. We find that this would be contrary to the principle that universal service policies and rules be competitively neutral. In light of these considerations, we will, as described below, make some accommodation during the period in which these carriers are upgrading their systems.

91. The Joint Board envisioned granting a period to make upgrades while still receiving support only if a carrier could meet a "heavy burden that such a . . . period is necessary and in the public interest" and if "exceptional circumstances" warranted the granting of support during that period.[180] We find that the Joint Board's recommendation provides a reasoned and reasonable approach to ensuring access to single-party service while, at the same time, recognizing that "exceptional circumstances" may prevent certain carriers serving rural areas from offering single-party service. We conclude that this approach also makes sense in the context of toll limitation service and access to E911 when a locality has implemented E911 service. Accordingly, we conclude that a carrier that is otherwise eligible to receive universal service support but is currently incapable of providing single-party service, toll limitation service, or access to E911 in the case where the locality has implemented E911 service may, if it provides each of the other designated services, petition its state commission for permission to receive universal service support for the designated period during which it is completing the network upgrades required so that it can offer these services. A carrier that is incapable of offering one or more of these three specific universal services must demonstrate to the state commission that "exceptional circumstances" exist with respect to each service for which the carrier desires a grant of additional time to make network upgrades.

92. We emphasize that this relief should be granted only upon a finding that "exceptional circumstances" prevent an otherwise eligible carrier from providing single-party service, toll limitation, or access to E911 when the locality has implemented E911 service. A carrier can show that exceptional circumstances exist if individualized hardship or inequity warrants a grant of additional time to comply with the general requirement that eligible carriers must provide single-party service, toll limitation service, and access to E911 when the locality has implemented E911 service and that a grant of additional time to comply with these requirements would better serve the public interest than strict adherence to the general requirement that an eligible telecommunications carrier must be able to provide these services to receive universal service support. The period during which a carrier could receive support while still completing essential upgrades should extend only as long as the relevant state

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[179] *See Wireless E911 Decision*.

[180] Recommended Decision, 12 FCC Rcd at 112, 129.

commission finds that "exceptional circumstances" exist and should not extend beyond the time that the state commission deems necessary to complete network upgrades. We conclude that this is consistent with the intent of section 214(e) because it will ensure that ultimately all eligible telecommunications carriers offer all of the services designated for universal service support.

93. We recognize that some state commissions already may have mandated single-party service for telecommunications service providers serving their jurisdictions.[181] If a state commission has adopted a timetable by which carriers must offer single-party service, a carrier may rely upon that previously established timetable and need not request another transition period for federal universal service purposes. Specifically, where a state has ordered a carrier to provide single-party service within a specified period pursuant to a state order that precedes the release date of this Order, the carrier may rely upon the timetable established in that order and receive universal service support for the duration of that period.

D. Extent of Universal Service Support

1. Background

94. Section 254(b)(3) states that "[c]onsumers in . . . high cost areas, should have access to telecommunications and information services. . . ."[182] The Joint Board recommended that support be provided (1) for designated services carried on a single connection to a subscriber's primary residence, and (2) for designated services carried to businesses located in rural, insular and other high cost areas and with only single connections.[183] The Joint Board concluded that single-connection residences and single-connection businesses both require access for health, safety, and employment reasons.[184] The Joint Board found that support for a second connection is not necessary for a household to have "access" to telecommunications and information services, pursuant to section 254(b)(2).[185] In addition, the Joint Board determined that universal service support should not

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[181] GTE comments at 84 n.124.

[182] 47 U.S.C. § 254(b)(3).

[183] Recommended Decision, 12 FCC Rcd at 132. Consistent with the principle of competitive neutrality, the Joint Board referred to "connections" rather than "lines."

[184] Recommended Decision, 12 FCC Rcd at 133 (*citing* MTS and WATS Market Structure, *Memorandum Opinion and Order*, 101 FCC 2d 1222 (1985)).

[185] Recommended Decision, 12 FCC Rcd at 132.

be extended to second residences.[186] The Joint Board reasoned that the additional cost of supporting second or vacation residences is not justified because owners of such residences can likely afford to pay rates that accurately reflect the carrier's costs and because second homes may not be occupied at all times.[187]

2. Discussion

95. The Joint Board recommended that support for designated services be limited to those carried on a single connection to a subscriber's primary residence and to businesses with only a single connection.[188] We share the Joint Board's concern that providing universal service support in high cost areas for second residential connections, second residences, and businesses with multiple connections may be inconsistent with the goals of universal service in that business and residential consumers that presumably can afford to pay rates that reflect the carrier's costs to provide services nevertheless would receive supported rates.[189] We are also mindful that overly expansive universal service support mechanisms potentially could harm all consumers by increasing the expense of telecommunications services for all.

96. In light of our determination below, however, to adopt a modified version of the existing universal service support system for high cost areas, we conclude, consistent with the proposal of the state Joint Board members,[190] that all residential and business connections in high cost areas that currently receive high cost support should continue to be supported for the periods set forth in section VII below.[191] For rural telephone companies this means that both multiple business connections and multiple residential connections will continue to receive universal service support at least until January 1, 2001. We intend, however, to continue to evaluate the Joint Board's recommendation to limit support for primary residential connections and businesses with a single connection as we further develop a means of precisely calculating the forward-looking economic cost of providing universal service in areas currently served by non-rural telephone companies. As we determine how to calculate forward-looking economic cost, or as states do so in state-conducted cost studies, we necessarily will examine the forward-looking economic cost of supporting additional

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[186] Recommended Decision, 12 FCC Rcd at 133.

[187] Recommended Decision, 12 FCC Rcd at 133.

[188] Recommended Decision, 12 FCC Rcd at 132-134.

[189] Recommended Decision, 12 FCC Rcd at 133.

[190] State High Cost Report at 3.

[191] The Commission may, however, implement the Joint Board's recommendation to differentiate between connections for purposes other than assigning universal service support. *See infra* section XII.

residential connections or multiple connection businesses. Depending on how we determine the forward-looking economic cost of the primary residential connection, for example, there may be little incremental cost to additional residential connections. In that case, for instance, there would be no need to support additional residential connections. We will consider the forward-looking cost of supporting designated services provided to multiple-connection businesses as well. We recognize the arguments raised by the several parties that commented on this aspect of the Joint Board's recommendation, but we do not address the merits of these arguments at this time.[192] We intend to examine the record on this issue in our FNPRM on a forward-looking economic cost methodology.

E. Quality of Service

1. Background

97. Section 254(b)(1) states that "quality services should be available at just, reasonable and affordable rates."[193] The Joint Board declined to recommend that the Commission establish federal technical standards as a condition to receiving universal service support.[194] The Joint Board also declined to recommend that the Commission adopt service quality standards "beyond the basic capabilities that carriers receiving universal service support must provide."[195] The Joint Board noted that states may, on a competitively neutral basis, adopt and enforce service quality rules that further the goals of universal service.[196] The Joint Board recommended that the Commission monitor service quality, by relying, to the extent possible, on existing data in order to avoid duplication of existing state data collection efforts.[197] The Joint Board recommended that the Commission rely on service quality data submitted to the Commission by state commissions in determining whether "quality services"

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[192] *See, e.g.*, Ameritech comments at 6 (additional residential connections should not be supported); Letter from Mark Sievers, MFS, to William F. Caton dated February 27, 1997 (universal service administrator should use nine-digit zip codes to identify subscribers with multiple connections and assign support); California SBA comments at 10 (all residential connections should be supported); APT comments at 5 (eligible carriers should receive support for providing service to primary residences); GTE comments at 79-81 (connections to all residences should be supported); Ameritech comments at 7 (no businesses connections should be supported); SBA comments at 18 (eliminating support for multiple-connection businesses would harm rural economies).

[193] 47 U.S.C. § 254(b)(1).

[194] Recommended Decision, 12 FCC Rcd at 140.

[195] Recommended Decision, 12 FCC Rcd at 140.

[196] Recommended Decision, 12 FCC Rcd at 140.

[197] Recommended Decision, 12 FCC Rcd at 140.

are available, consistent with section 254(b)(1).[198]

2. Discussion

98. We concur with the Joint Board's recommendation against the establishment of federal technical standards as a condition to receiving universal service support.[199] Further, we agree with the Joint Board that the Commission should not adopt service quality standards "beyond the basic capabilities that carriers receiving universal service support must provide."[200] Section 254(b)(1) establishes availability of quality services as one of the guiding principles of universal service, but, contrary to CWA's characterization of this section as a statutory requirement, section 254(b)(1) does not mandate specific measures designed to ensure service quality.[201] Rather, section 254(b) sets forth the statutory principles that the Joint Board considered when making its recommendations and, similarly, must guide the Commission as it implements section 254. Although we recognize service quality to be an important goal, we conclude that implementing federally-imposed service quality or technical standards for promoting universal service is not required at this time, but we may re-examine this issue in the future.

99. Based on the Joint Board's recommendation that the Commission not establish federal technical standards as a condition to receiving universal service support, we conclude that the Commission should rely upon existing data, rather than specific standards, to monitor service quality at this time.[202] Accordingly, we reject CWA's proposal that the Commission establish federal reporting requirements.[203] As the Joint Board concluded, several states currently have service quality reporting requirements in place for carriers serving their jurisdictions.[204] We find, consistent with the Joint Board's recommendation, that imposing

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[198] Recommended Decision, 12 FCC Rcd at 140.

[199] Recommended Decision, 12 FCC Rcd at 140.

[200] Recommended Decision, 12 FCC Rcd at 140.

[201] CWA comments at 5.

[202] *See* Recommended Decision, 12 FCC Rcd at 140.

[203] CWA reply comments at 6.

[204] Recommended Decision, 12 FCC Rcd at 140 *(citing* National Regulatory Research Institute, *Telecommunications Service Quality* (March 1996) (indicating that 32 state regulatory commissions and the District of Columbia have instituted quality of service standards since the AT&T divestiture.)). *See also* NARUC Compilation of Utility Regulatory Policy 1994-1995 at Table 159 (showing that 36 states require periodic telephone service quality reporting).

additional requirements at the federal level would largely duplicate states' efforts.[205] In addition, imposing federal service quality reporting requirements could be overly burdensome for carriers, particularly small telecommunications providers that may lack the resources and staff needed to prepare and submit the necessary data. For this reason, we also decline to expand, solely for universal service purposes, the category of telecommunications providers required to file ARMIS service quality and infrastructure reporting data, as suggested by North Dakota PSC.[206] Currently, ARMIS filing requirements apply to carriers subject to price cap regulation that collectively serve 95 percent of access lines. We will not extend ARMIS reporting requirements to all carriers because we find that additional reporting requirements would impose the greatest burdens on small telecommunications companies.[207] Although we recognize service quality to be an important goal, we conclude that implementing federally-imposed service quality or technical standards for promoting universal service would be inconsistent with the 1996 Act's goal of a "pro-competitive, de-regulatory national policy framework" because of the administrative burden on carriers resulting from the compilation and preparation of service quality reports that would be required for the Commission to assess whether carriers were meeting those standards.[208] We conclude that the record before us does not demonstrate the need to do so at this time, but we may re-evaluate the need for additional service quality reporting requirements in the future.

100. As recommended by the Joint Board,[209] we will rely upon service quality data provided by the states in combination with those data that the Commission already gathers from price cap carriers through existing data collection mechanisms in order to monitor service quality trends.[210] We concur with the Joint Board's recommendation that state commissions share with the Commission, to the extent carriers provide such data, information regarding, for example, the number and type of service quality complaints filed with state agencies.[211] We encourage state commissions to submit to the Commission the service quality

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[205] Recommended Decision, 12 FCC Rcd at 140.

[206] North Dakota PSC comments at 2.

[207] The Commission has recently reduced the number of filing requirements imposed on carriers. *See* Revision of Filing Requirements, *Report and Order,* CC Docket No. 96-23, FCC 96-1873 (rel. November 13, 1996), *Erratum,* CC Docket No. 96-23, FCC 96-2207 (rel. December 31, 1996) (eliminating 18 information reporting requirements imposed on common carriers).

[208] Joint Explanatory Statement at 113.

[209] Recommended Decision, 12 FCC Rcd at 140.

[210] For example, the Commission receives service quality data by carriers that submit ARMIS 43-05 and ARMIS 43-06 reports.

[211] Recommended Decision, 12 FCC Rcd at 140.

data they receive from their telecommunications carriers. We do not, however, establish the specific type of data that state commissions should submit to the Commission because imposing such requirements might hamper states' efforts to collect the data that they find to be most effective for ensuring service quality for their residents. Nor do we adopt CWA's proposal that the Commission require state commissions to impose the same quality standards on competitive LECs that are imposed upon incumbent LECs.[212] We find that state commissions, by virtue of their familiarity with the carriers serving their respective states, are best situated to determine the extent to which service quality standards should be applied in their jurisdictions. Moreover, we agree with the Joint Board's finding that, as competition in the telecommunications industry increases, consumers will select their providers based on, among other factors, the quality of service offered.[213] We agree with North Dakota PSC that providing consumers with access to publicly available data on the performance of carriers serving a particular state could promote increased service quality by permitting consumers to compare the service quality records of competing carriers.[214] Therefore, we encourage state commissions, to the extent they collect such information, to make service quality data readily available to the public.

101. Consistent with the Joint Board's recommendation, we conclude that states may adopt and enforce service quality rules that are competitively neutral, pursuant to section 253(b), and that are not otherwise inconsistent with rules adopted herein.[215] We concur with commenters that favor state implementation of carrier performance standards.[216] Relying on data compiled by the National Association of Regulatory Utilities Commissioners, we note that 40 states and the District of Columbia have service quality standards in place for telecommunications companies.[217] Because most states have established mechanisms designed to ensure service quality in their jurisdictions, we find that additional efforts undertaken at the federal level would be largely redundant. We conclude that state-imposed measures to monitor and enforce service quality standards will help "ensure the continued quality of

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[212] CWA reply comments at 7-8.

[213] Recommended Decision, 12 FCC Rcd at 141.

[214] North Dakota PSC comments at 1.

[215] Recommended Decision, 12 FCC Rcd at 140. Section 253(b) reads: "Nothing in this section affects the authority of a State to impose, on a competitively neutral basis and consistent with section 254, requirements necessary to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers."

[216] *See, e.g.,* California DCA comments at 19; Maryland PSC comments at 8; Ohio PUC comments at 6; WorldCom comments at 11.

[217] NARUC Compilation of Utility Regulatory Policy 1994-1995 at Table 157.

telecommunications services, and safeguard the rights of consumers," consistent with section 253(b).[218] In light of the existing state mechanisms designed to promote service quality, we conclude that state commissions are the appropriate fora for resolving consumers' specific grievances regarding service quality. We may, in the future, however, address the need for federal service quality standards, in particular, with respect to states that currently do not have such standards in place. In addition, the Commission may address broader, more wide-ranging service quality issues during our ongoing monitoring of service quality trends.

102. We agree with the Joint Board's conclusion that, to the extent the Joint Board recommended, and we adopt, specific definitions of the services designated for support, these basic capabilities establish minimum levels of service that carriers must provide in order to receive support.[219] For example, we conclude above that voice grade access to the public switched network should occur in the frequency range between approximately 500 Hertz and 4,000 Hertz for a bandwidth of approximately 3,500 Hertz. Although not a service quality standard per se, this requirement will ensure that all consumers served by eligible carriers receive some minimum standard of service.

F. Reviewing the Definition of Universal Service

1. Background

103. Section 254(c)(2) states that "[t]he Joint Board may, from time to time, recommend to the Commission modifications in the definition of the services that are supported by Federal universal service support mechanisms."[220] The Joint Board recommended that the Commission convene a Joint Board no later than January 1, 2001, to revisit the definition of universal service.[221] The Joint Board further recommended that the Commission base future analyses of the definition of universal service, *inter alia*, on data derived from the Commission's existing data collection mechanisms, such as those collected through ARMIS.[222]

2. Discussion

104. As recommended by the Joint Board, the Commission shall convene a Joint

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[218] 47 U.S.C. § 253(b).

[219] Recommended Decision, 12 FCC Rcd at 140.

[220] 47 U.S.C. § 254(c)(2).

[221] Recommended Decision, 12 FCC Rcd at 143.

[222] Recommended Decision, 12 FCC Rcd at 143.

Board no later than January 1, 2001, to revisit the definition of universal service, as section 254(c)(2) anticipates.[223] As the Joint Board concluded, this approach to re-examining the services to be supported strikes a reasonable balance between too frequent reviews, which could cause unnecessary expenditure of resources, and sporadic evaluation, which may not produce a definition of universal service that is consistent with the principles enumerated in section 254(b) and does not reflect the definitional criteria of section 254(c).[224]

105. We disagree with GVNW's argument that carriers will lack incentive to invest in the infrastructure needed for services that may be designated for support in the future and, thus, may fail to qualify for support under future definitions of universal services.[225] As discussed below in section VII, we have carefully structured the universal service support mechanisms to be "sufficient" pursuant to section 254(b)(4). As the Joint Board concluded, in future assessments of the definition of universal service, the Commission and Joint Board will consider what services have "been subscribed to by a substantial majority of residential customers" and "are being deployed in public telecommunications networks by telecommunications carriers," pursuant to section 254(c)(1).[226] GVNW's argument ignores the element of consumer demand that guides carriers' investment decisions and the statutory criteria upon which decisions to alter the list of supported services will be based.

106. We reject People For's contention that a formal biennial review is warranted.[227] As recommended by the Joint Board, we conclude that the Commission may institute a review at any time upon its own motion or in response to petitions by interested parties.[228] We find that this approach to reviewing the definition of supported services permits sufficient flexibility to enable the Commission to respond to developments in the telecommunications industry. We agree with CNMI and other parties that "periodic" reviews are warranted to keep pace with technical developments as well as consumer trends.[229] We reiterate that the Commission will convene a Joint Board no later than January 1, 2001, to revisit the definition of universal service.

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[223] Recommended Decision, 12 FCC Rcd at 143.

[224] Recommended Decision, 12 FCC Rcd at 143.

[225] GVNW comments at 5.

[226] Recommended Decision, 12 FCC Rcd at 143.

[227] People For comments at 7.

[228] Recommended Decision, 12 FCC Rcd at 143.

[229] CNMI comments at 37. *See also* GVNW comments at 5; NetAction comments at 4; Ohio PUC comments at 6.

107. Consistent with the Joint Board's recommendation, we do not adopt, at this time, additional reporting requirements to collect data for use in re-evaluating the definition of universal service.[230] We recognize that complying with reporting requirements is burdensome for carriers, especially for small carriers that may lack the resources and personnel needed to compile the relevant information. In order to determine whether new services or functionalities should be included within the definition of universal service, however, we and the Joint Board will need information that will enable us to determine whether a proposed service has "been subscribed to by a substantial majority of residential customers" and "is being deployed in public telecommunications networks by telecommunications carriers" pursuant to section 254(c)(1). In addition to relying upon existing data collection mechanisms, such as ARMIS reports, the Commission will conduct any surveys or statistical analysis that may be necessary to make the evaluations required by section 254(c)(1) to change the definition of universal service. Finally, we encourage states, to the extent they collect and monitor data relevant to assessing whether services meet the criteria set forth in section 254(c)(1), to provide such data to the Joint Board and the Commission in connection with any future re-evaluation of the definition of universal service.

[230] *See* Recommended Decision, 12 FCC Rcd at 143.

V. AFFORDABILITY

A. Overview

108. The 1996 Act requires that the Commission and the states ensure that universal services are affordable.[231] In this section, we determine the factors to be considered in examining affordability, including subscribership levels and other non-rate factors that may influence a consumer's decision to subscribe to services designated as universal services. We conclude that the states, by virtue of their local ratemaking authority, should exercise primary responsibility for determining the affordability of rates. Finally, the Commission and states, working in partnership, should jointly examine the factors identified at the state level that may contribute to low penetration rates in states where subscribership levels are particularly low. In such states, we believe joint efforts between the Commission and the states may be helpful in increasing subscription.

B. Affordability

1. Background

109. Section 254(b)(1) provides that "[q]uality services should be available at just, reasonable, and affordable rates."[232] In addition, section 254(i) requires that "[t]he Commission and the States should ensure that universal service is available at rates that are just, reasonable, and affordable."[233] The Joint Board recommended that a determination of affordability should take into consideration rate levels and non-rate factors such as local calling area size, income levels, cost of living, population density, and other socioeconomic indicators.[234] In addition, the Joint Board found that both the states and the Commission should play roles in ensuring affordable rates, consistent with the statutory mandate embodied in section 254(i).[235]

2. Discussion

110. In General. We agree with and adopt the Joint Board's finding that the definition of affordability contains both an absolute component ("to have enough or the means

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[231] 47 U.S.C. § 254(i). *See also* 47 U.S.C. § 254(b)(1).

[232] 47 U.S.C. § 254(b)(1).

[233] 47 U.S.C. § 254(i). *See also* Joint Explanatory Statement at 134.

[234] Recommended Decision, 12 FCC Rcd at 151, 153.

[235] Recommended Decision, 12 FCC Rcd at 154.

for"), which takes into account an individual's means to subscribe to universal service, and a relative component ("to bear the cost of without serious detriment"), which takes into account whether consumers are spending a disproportionate amount of their income on telephone service.[236] The Joint Board noted the concern of commenters that, because telephone service is considered a modern necessity, some consumers may subscribe to telephone service irrespective of whether the rate charged imposes a significant hardship and therefore high subscribership rates do not ensure that rate levels are affordable.[237] In light of the Joint Board's findings, we agree with the Joint Board that we and the states must consider both the absolute and relative components when making the affordability determinations required under section 254.[238] To that end, we adopt the Joint Board's recommendation that a determination of affordability take into consideration both rate levels and non-rate factors, such as consumer income levels, that can be used to assess the financial burden subscribing to universal service places on consumers.[239]

111. The Joint Board expressly rejected suggestions that the Commission establish a nationwide affordable rate, including proposals to use an average of current rates as a measure of affordability, and we agree with this approach.[240] As the Joint Board reasoned, a nationwide rate would ignore the vast differences within and among regions that can affect what constitutes affordable service.[241] Accordingly, we adopt the Joint Board's finding that, because various factors, many of which are local in nature, affect rate affordability, it is not appropriate to establish a nationwide affordable rate.[242]

112. Subscribership Levels. We also concur in the Joint Board's finding that subscribership levels provide relevant information regarding whether consumers have the means to subscribe to universal service and, thus, represent an important tool in evaluating the affordability of rates.[243] Based on recent nationwide subscribership data, the Joint Board

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[236] Recommended Decision, 12 FCC Rcd at 151 (*citing Webster's New World Dictionary* at 23).

[237] Recommended Decision, 12 FCC Rcd at 152 n.403.

[238] *See* 47 U.S.C. § 254(i).

[239] The non-rate factors affecting a consumer's ability to afford telephone service are discussed below.

[240] Recommended Decision, 12 FCC Rcd at 154.

[241] Recommended Decision, 12 FCC Rcd at 153.

[242] Recommended Decision, 12 FCC Rcd at 154.

[243] Recommended Decision, 12 FCC Rcd at 152.

judged that existing local rates are generally affordable.[244] We find that recent subscribership data, indicating that 94.2 percent of all American households subscribed to telephone service in 1996, and the record in this proceeding are consistent with the Joint Board's determination.[245] We recognize that affordable rates are essential to inducing consumers to subscribe to telephone service, and also that increasing the number of people connected to the network increases the value of the telecommunications network. Further, we note that insular areas generally have subscribership levels that are lower than the national average, largely as a result of income disparity, compounded by the unique challenges these areas face by virtue of their locations.[246]

113. We also agree with the Joint Board[247] and commenters,[248] however, that subscribership levels are not dispositive of the issue of whether rates are affordable. For example, we agree with the view that subscribership levels do not reveal whether consumers are spending a disproportionate amount of income on telecommunications services.[249] As the Joint Board concluded, subscribership levels do not address the second component of affordability, namely, whether paying the rates charged for services imposes a hardship for those who subscribe.[250] Accordingly, we conclude, as discussed further below, that the Commission and states should use subscribership levels, in conjunction with rate levels and certain other non-rate factors, to identify those areas in which the services designated for support may not be affordable.

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[244] Recommended Decision, 12 FCC Rcd at 154.

[245] Federal Communications Commission, Industry Analysis Division, *Trends in Telephone Service* (rel. March 28, 1997) at Table 2. *See, e.g.,* Bell Atlantic comments at 2 (the Commission should affirm the Joint Board's finding that local rates are generally affordable). *But see* Governor of Guam comments at 10 (rates are not affordable in Guam).

[246] *See, e.g.,* Puerto Rico Tel. Co. comments at 15 (national median income is 3.54 times higher than the Puerto Rico median income); CNMI NPRM comments at 9 (per capita income and telephone penetration rate in the Commonwealth of Northern Marianas Islands (CNMI) are among lowest in the nation); Puerto Rico Tel. Co. comments at 25-26 (factors such as tropical climate, high cost of shipping and topography contribute to high cost of providing service to insular areas); CNMI NPRM comments at 6 (telecommunications services are essential in CNMI because the islands' distance from the U.S. mainland impedes travel and mail delivery).

[247] Recommended Decision, 12 FCC Rcd at 152.

[248] *See, e.g.,* People For comments at 9.

[249] People For comments at 9. We also recognize that lower income levels make telephone service less affordable, as evidenced by Puerto Rico, which has a per capita income of $4,177 (compared with a per capita income of $14,420 for the rest of the United States) and a subscribership level of 74 percent (compared with approximately 94% for the rest of the United States). Puerto Rico Tel. Co. comments at 5, 15 n.29.

[250] Recommended Decision, 12 FCC Rcd at 152.

114. Non-Rate Factors. Consistent with the Joint Board's finding, the record demonstrates that various other non-rate factors affect a consumer's ability to afford telephone service.[251] We agree with the Joint Board's assessment and commenters' contentions that the size of a customer's local calling area is one factor to consider when assessing affordability.[252] Specifically, we concur with the Joint Board's finding that the scope of the local calling area "directly and significantly impacts affordability," and, thus, should be a factor to be weighed when determining the affordability of rates.[253] We further agree with the Joint Board that, in considering this factor, an examination that would focus solely on the number of subscribers to which one has access for local service in a local calling area would be insufficient.[254] Instead, as the Joint Board recommended, a determination that the calling area reflects the pertinent "community of interest," allowing subscribers to call hospitals, schools, and other essential services without incurring a toll charge, is appropriate.[255] In reaching this conclusion, we agree with United Utilities and other commenters that affordability is affected by the amount of toll charges a consumer incurs to contact essential service providers such as hospitals, schools, and government offices that are located outside of the consumer's local calling area.[256] Toll charges can greatly increase a consumer's expenditure on telecommunications services, mitigating the benefits of universal service support. In addition, rural consumers who must place toll calls to contact essential services that urban consumers may reach by placing a local call cannot be said to pay "reasonably comparable" rates for local telephone service when the base rates of the service are the same in both areas.[257] Thus, we find that a determination of rate affordability should consider the range of a subscriber's local calling area, particularly whether the subscriber must incur toll charges to contact essential public service providers.

115. In addition, we agree with the Joint Board[258] and commenters[259] that consumer

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[251] Recommended Decision, 12 FCC Rcd at 151-153.

[252] Recommended Decision, 12 FCC Rcd at 152.

[253] Recommended Decision, 12 FCC Rcd at 152.

[254] Recommended Decision, 12 FCC Rcd at 152.

[255] Recommended Decision, 12 FCC Rcd at 152.

[256] United Utilities comments at 4. *See also* People For comments at 8-9; Vermont comments at 14.

[257] *See* 47 U.S.C. § 254(b)(3).

[258] Recommended Decision, 12 FCC Rcd at 153.

[259] Bell Atlantic comments at 16; CNMI comments at 35; Governor of Guam comments at 9; Minnesota Coalition comments at 10; People For comments at 9-10.

income levels should be among the factors considered when assessing rate affordability. We concur with the Joint Board's finding that a nexus exists between income level and the ability to afford universal service.[260] As the Joint Board observed, a rate that is affordable to affluent customers may not be affordable to lower-income customers.[261] We agree with the Joint Board that, in light of the significant disparity in income levels throughout the country, per-capita income of a local or regional area, and not a national median, should be considered in determining affordability.[262] As the Joint Board concluded, determining affordability based on a percentage of the national median income would be inequitable because of the significant disparities in income levels across the country.[263] Specifically, we agree with Minnesota Coalition that such a standard would tend to overestimate the price at which services are affordable when applied to a service area where income level is significantly below the national median.[264] Accordingly, we decline to adopt proposals to establish nationwide standards for measuring the impact of customer income levels on affordability.[265] We also find that establishing a formula based on percentages of consumers' disposable income dedicated to telecommunications services, as suggested by People For, would over-emphasize income levels in relation to other non-rate factors that may affect affordability and fail to reflect the effect of local circumstances on the affordability of a particular rate.[266]

116. We also agree with the Joint Board[267] and commenters that cost of living[268] and population density[269] affect rate affordability. Like income levels, cost of living affects how much a consumer can afford to pay for universal services. As discussed above, the size of a consumer's calling area, which tends to be smaller in areas with low population density, affects affordability. In addition, given that cost of living and population density, like income

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[260] Recommended Decision, 12 FCC Rcd at 153.

[261] Recommended Decision, 12 FCC Rcd at 153.

[262] Recommended Decision, 12 FCC Rcd at 153.

[263] Recommended Decision, 12 FCC Rcd at 153.

[264] Minnesota Coalition comments at 12.

[265] *See, e.g.,* People For comments at 9.

[266] *See* People For comments at 9.

[267] Recommended Decision, 12 FCC Rcd at 151.

[268] *See, e.g.,* Bell Atlantic comments at 16; CNMI comments at 35; Minnesota Coalition comments at 10.

[269] *See, e.g.,* Bell Atlantic comments at 16; Governor of Guam comments at 9. Strictly speaking, population density affects cost because, in areas with low population density, carriers' costs are generally higher.

levels, are factors that vary across local or regional areas, we find that these factors should be considered by region or locality.

117. Finally, we agree with and adopt the Joint Board's finding that legitimate local variations in rate design may affect affordability.[270] As identified by the Joint Board, such variations include the proportion of fixed costs allocated between local services and intrastate toll services; proportions of local service revenue derived from per-minute charges and monthly recurring charges; and the imposition of mileage charges to recover additional revenues from customers located a significant distance from the wire center.[271] We find that states, by virtue of their local rate-setting authority, are best qualified to assess these factors in the context of considering rate affordability.

118. Determining Rate Affordability. We agree with the Joint Board that states should exercise initial responsibility, consistent with the standards set forth above, for determining the affordability of rates.[272] We further concur with the Joint Board's conclusion that state commissions, by virtue of their rate-setting roles, are the appropriate fora for consumers wishing to challenge the affordability of intrastate rates for both local and toll services.[273] As the Joint Board determined, the unique characteristics of each jurisdiction render the states better suited than the Commission to make determinations regarding rate affordability.[274] Each of the factors proposed by parties and endorsed by the Joint Board with the exception of subscribership levels -- namely, local calling area size, income levels, cost of living, and population density -- represents data that state regulators, as opposed to the Commission, are best situated to obtain and analyze.[275] For example, state regulators have access to information collected at the state level pertaining to income levels and the cost of living within their respective state. Guided by the Joint Board's recommended joint federal-state approach to monitoring and assessing affordability,[276] we encourage states to submit to the Commission summary reports of the data collected at the state level that could assist the Commission in its assessment of affordability.

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[270] Recommended Decision, 12 FCC Rcd at 153.

[271] Recommended Decision, 12 FCC Rcd at 153.

[272] Recommended Decision, 12 FCC Rcd at 153.

[273] Recommended Decision, 12 FCC Rcd at 153.

[274] Recommended Decision, 12 FCC Rcd at 153.

[275] *See* Recommended Decision, 12 FCC Rcd at 153.

[276] *See* Recommended Decision, 12 FCC Rcd at 154.

119. We note that in the Recommended Decision the Joint Board envisioned the Commission and affected states working together informally in states where "subscribership levels fall from the current levels on a statewide basis."[277] We do not, however, adopt Puerto Rico Tel. Co.'s proposal for automatic federal intervention in states in which the subscribership level is more than five percent below the national average.[278] Nor do we agree with Bell Atlantic's contention that the Commission should intervene only when a state experiences a "statistically significant" drop in telephone penetration levels and requests the Commission's assistance in providing a remedy for its declining subscribership.[279] Neither of these suggested approaches would give the Commission and the states sufficient flexibility to determine, on a state by state basis, when circumstances warrant Commission intervention, and when state action alone will remedy the cause or causes of a low or declining subscribership level.

120. As the Joint Board recommended, the Commission will work in concert with states and U.S. territories and possessions informally to address instances of low or declining subscribership levels.[280] Such informal cooperation may consist of sharing data or conducting joint inquiries in an attempt to determine the cause of low or declining subscribership rates in a given state, or providing other assistance requested by a state. As the Joint Board recognized, states have the ability to make the primary determination of affordability. We will defer to the states for guidance on how best to implement federal-state collaborative efforts to ensure affordability. We find that this dual approach in which both the states and the Commission play significant roles in ensuring affordability is consistent with the statutory mandate embodied in section 254(i).

121. In addition, consistent with the Joint Board's recommendation, where "necessary and appropriate," the Commission, working with the affected state or U.S. territory or possession, will open an inquiry to take such action as is necessary to fulfill the requirements of section 254. We conclude that such action is warranted with respect to insular areas. The record indicates that subscribership levels in insular areas are particularly low.[281] Accordingly, we will issue a Public Notice to solicit further comment on the factors that contribute to the low subscribership levels that currently exist in insular areas, and to

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[277] Recommended Decision, 12 FCC Rcd at 154.

[278] *See* Puerto Rico Tel. Co. comments at 27.

[279] *See* Bell Atlantic comments at 16.

[280] *See* Recommended Decision, 12 FCC Rcd at 154. *See also* Washington UTC comments at 11.

[281] *See* Puerto Rico Tel. Co. comments at 5 (telephone subscribership is 72 percent in Puerto Rico); CNMI NPRM comments at 10 (telephone subscribership is 66.8 percent in CNMI according to 1990 Census data).

examine ways to improve subscribership in these areas.[282]

122. Some commenters, including the Department of Interior, have suggested that the Commission provide universal service support for rates that are found to be unaffordable or where subscribership levels decline from current levels.[283] We agree that, if subscribership levels begin to drop significantly from current levels, we may need to take further action. Among the benefits subscribership brings to individuals is access to essential services, such as emergency service providers, and access to entities such as schools, health care facilities and local governments. In addition, subscribers enjoy the increased value of the telephone network, i.e., the large numbers of people who can be reached via the network, that results from high subscribership levels. We agree with Puerto Rico Tel. Co. that, because the Puerto Rico subscribership level remains significantly below the national average, it is not appropriate to delay action until a subscribership level that is already low declines further.[284] As discussed above, we find that further action is warranted with respect to insular areas.

123. In addition, we will continue actively to monitor subscribership across a wide variety of income levels and demographic groups and encourage states to do likewise. The Commission currently uses Census Bureau data to publish reports that illustrate subscribership trends among households, including subscribership by state, as well as nationwide subscribership rates by categories including income level, race, and age of household members, and household size.[285] We find that any response to a decline in subscribership revealed by our analysis of the relevant data should be tailored to those who need assistance to stay connected to the network.[286]

124. Contrary to the suggestion of those commenters that favor linking universal service support to subscribership levels, we concur with the Joint Board's recommendation to implement a national benchmark to calculate the amount of support eligible

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[282] We recognize that, although the record includes data regarding Puerto Rico, Guam and CNMI, we have no data with respect to American Samoa. We strongly encourage American Samoa to supplement the record in this proceeding.

[283] Interior reply comments at 2. *See also* Governor of Guam comments at 10.

[284] Puerto Rico Tel. Co. comments at 17.

[285] The Commission publishes these reports three time per year based on the Current Population Surveys of the Census Bureau for the months of March, July, and November. In addition, the Commission periodically publishes telephone penetration reports that relate subscribership data to other questions on the Current Population Survey questionnaires.

[286] *See infra* section VIII.

telecommunications carriers will receive for serving rural, insular, and high cost areas.[287] The Joint Board declined to establish a benchmark based on income or subscribership and specifically did not equate the benchmark support levels with affordability.[288] We agree. Setting the rural, insular and high cost support benchmark based on income and subscribership would fail to target universal service assistance and could therefore needlessly increase the amount of universal service support. Recent data show that telephone subscribership was 96.2 percent in 1996 for households with annual incomes of at least $15,175 and 85.4 percent for households with annual incomes below $15,175.[289] The Joint Board concluded that, because telephone penetration declines significantly for low-income households, the impact of household income is more appropriately addressed through programs designed to help low-income households obtain and retain telephone service, rather than as part of the high cost support mechanism.[290] Accordingly, we adopt the Joint Board's recommendation to channel support designed to assist low-income consumers through the Lifeline and Link Up programs, rather than through the high cost support methodology. As discussed below, Lifeline and Link Up are programs that are specifically targeted to assisting low-income consumers. Accordingly, these programs provide the best source of assistance for individuals to obtain and retain universal service, and, therefore, help maintain and improve telephone subscribership.[291]

125. Maintaining Affordable Rates. Several parties express concern regarding the relationship between expanding the level of universal service funding and the affordability of rates for end users who, they argue, ultimately must pay for an expanded funding obligation.[292] As noted, an explicit principle of section 254 is that quality services should be "affordable" for all consumers.[293] At the same time, the 1996 Act compels the Commission to

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[287] Recommended Decision, 12 FCC Rcd at 247.

[288] Recommended Decision, 12 FCC Rcd at 247.

[289] Federal Communications Commission, Industry Analysis Division, *Telephone Penetration by Income by State* at 15, 24, 33 (rel. February 24, 1997).

[290] Recommended Decision, 12 FCC Rcd at 247.

[291] *See infra* section VIII.

[292] *See, e.g.,* PCIA comments at 7; Sprint comments at 2-3; Motorola comments at 9-10.

[293] 47 U.S.C. §§ 254(b)(1) ("[q]uality services should be available at just, reasonable, and affordable rates") and 254(i) ("[t]he Commission and the States should ensure that universal service is available at rates that are just, reasonable, and affordable.").

expand the category of beneficiaries of universal service support.[294] We are mindful of the effects that expanded universal service mechanisms may have on consumers, and adopt specific measures designed to ensure that the costs of universal service are no higher than needed to comply with the statutory mandates of section 254.[295]

126. Regarding the concerns of Puerto Rico Tel. Co. and other parties that rates will increase as the Commission implements the universal service and other reforms required by the 1996 Act,[296] we note that the Commission and the states have a joint obligation to ensure that universal service is available at rates that are affordable.[297] As discussed above, we believe that the states must play an important role in making affordability determinations, and the Commission will work in concert with the states to that end. Consistent with the Joint Board's recommendation that the Commission continue to oversee the development of the concept of affordability, we will continue to monitor subscribership and rates and, if necessary, will propose measures designed to ensure that consumers in all regions of the country receive universal service at just, reasonable and affordable rates.[298]

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[294] *See* 47 U.S.C § 254(h) (universal service support for eligible schools, libraries, and rural health care providers).

[295] *See, e.g., supra* section IV (including within the definition of universal service only those "core" services deemed necessary to fulfill the Commission's responsibility under section 254); *infra* section X (adopting the Joint Board's proposal to cap the annual amount of support for schools and libraries).

[296] Puerto Rico Tel. Co. comments at 10-11. *See also* Airtouch comments at 3-4; PCIA comments at 7; Sprint comments at 2-3; Motorola reply comments at 9-10.

[297] *See* 47 U.S.C. § 254(i).

[298] *See* Recommended Decision, 12 FCC Rcd at 153.

VI. Carriers Eligible for Universal Service Support

A. Overview

127. In this section, we discuss which telecommunications carriers will be eligible to receive support from the federal universal service support mechanisms. We address eligibility for support for services provided to schools and libraries below in section X. We conclude that the plain language of section 214(e) precludes adoption of additional eligibility criteria beyond those enumerated in that section. Accordingly, as recommended by the Joint Board, we adopt without expansion the statutory criteria set out in section 214(e) as the rules governing eligibility.

128. We interpret the term "facilities" in section 214(e)(1) to mean any physical components of the telecommunications network that are used in the transmission or routing of the services designated for support under section 254(c)(1). We further conclude that a carrier that offers any of the services designated for universal service support, either in whole or in part, over facilities obtained as unbundled network elements pursuant to section 251(c)(3) satisfies the "own facilities" requirement of section 214(e). Consistent with the Joint Board's recommendation, we find that no additional measures are necessary to implement the advertising requirement of section 214(e)(1) and the provisions of section 254(e) that limit the purposes for which universal service funds may be used.

129. We recognize that the states have responsibility for designating the service areas of non-rural carriers. We also agree with the Joint Board, however, that states should not designate service areas that are unreasonably large because we recognize, as did the Joint Board, that an unreasonably large service area could greatly increase the scale of operations required of new entrants. Thus, unreasonably large service areas may prohibit or have the effect of prohibiting the ability of entities to provide local exchange service and are not necessary to preserve and advance universal service. State designation of an unreasonably large service area could, therefore, violate section 253 as a market entry barrier. We conclude, as did the Joint Board, that rural telephone companies' study areas will be used as their designated service areas, although we encourage states to consider disaggregating a rural telephone company's study area into service areas composed of the contiguous portions of that study area. Finally, we agree with the Joint Board that no additional regulations are necessary at this time for the designation of carriers to serve unserved areas.

B. Eligible Telecommunications Carriers

1. Background

130. Section 254(e) provides that, after the effective date of the Commission's regulations implementing section 254, "only an eligible telecommunications carrier designated

under section 214(e) shall be eligible to receive specific Federal universal service support."[299] The legislative history indicates that "this restriction should not be construed to prohibit any telecommunications carrier from using any particular method to establish rates or charges for its services to other telecommunications carriers, to the extent such rates or charges are otherwise permissible under the Communications Act or other law."[300] Section 254(e) further prescribes that a carrier receiving universal service support "shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended."[301] Additionally, section 254(k) prohibits a carrier from using non-competitive services to subsidize services that are subject to competition.[302]

131. Section 214(e)(1) provides that:

> A common carrier designated as an eligible telecommunications carrier under [subsection 214(e)(2)] or [subsection 214(e)(3)] shall be eligible to receive universal service support in accordance with section 254 and shall, throughout the service area for which the designation is received--
>
> > (A) offer the services that are supported by Federal universal service support mechanisms under section 254(c), either using its own facilities or a combination of its own facilities and resale of another carrier's services (including the services offered by another eligible telecommunications carrier); and
> > (B) advertise the availability of such services and the charges therefore using media of general distribution.[303]

132. Pursuant to section 214(e)(2), state commissions must, either upon their own motion or upon request, designate a common carrier that meets the requirements of section 214(e)(1) "as an eligible telecommunications carrier for a service area designated by the State

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[299] 47 U.S.C. § 254(e). Section 254(h)(1)(B)(ii) states that telecommunications carriers providing service to schools and libraries under section 254(h)(1)(B) shall receive support "notwithstanding the provisions of [section 254(e)]." 47 U.S.C. § 254(h)(1)(B)(ii).

[300] Joint Explanatory Statement at 131-32.

[301] 47 U.S.C. § 254(e).

[302] 47 U.S.C. § 254(k). The Commission intends to address issues related to section 254(k) in a separate proceeding.

[303] 47 U.S.C. § 214(e)(1).

commission."[304] Section 214(e)(2) also provides for the designation of more than one carrier as an eligible telecommunications carrier. It states:

> Upon request and consistent with the public interest, convenience, and necessity, the State commission may, in the case of an area served by a rural telephone company,[305] and shall, in the case of all other areas, designate more than one common carrier as an eligible telecommunications carrier for a service area designated by the State commission, so long as each additional requesting carrier meets the requirements of [subsection 214(e)(1)]. Before designating an additional eligible telecommunications carrier for an area served by a rural telephone company, the State commission shall find that the designation is in the public interest.[306]

Section 214(e) also contains provisions governing a carrier's relinquishment of its eligible carrier designation in areas served by more than one eligible carrier. The statute requires states to permit eligible carriers to relinquish their designation after giving the state notice. The statute requires remaining eligible carriers to serve the relinquishing carrier's customers and requires the relinquishing carrier to give notice sufficient to permit remaining carriers to construct or purchase facilities, if necessary.[307]

133. The Joint Board recommended that the Commission adopt, without elaboration,

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[304] 47 U.S.C. § 214(e)(2).

[305] 47 U.S.C. § 153(37) provides as follows:

The term ‘rural telephone company’ means a local exchange carrier operating entity to the extent that such entity-

(A) provides common carrier service to any local exchange carrier study area that does not include either-

(i) any incorporated place of 10,000 inhabitants or more, or any part thereof, based on the most recently available population statistics of the Bureau of the Census; or

(ii) any territory, incorporated or unincorporated, included in a urbanized area, as defined by the Bureau of the Census as of August 10, 1993;

(B) provides telephone exchange service, including exchange access, to fewer that 50,000 access lines;

(C) provides telephone exchange service to any local exchange carrier study area with fewer than 100,000 access lines; or

(D) has less than 15 percent of its access lines in communities of more than 50,000 on the date of enactment of the Telecommunications Act of 1996.

[306] 47 U.S.C. § 214(e)(2).

[307] 47 U.S.C. § 214(e)(4).

the statutory criteria set out in section 214(e) as the rules that will govern eligibility.[308] The Joint Board rejected arguments that all eligible telecommunications carriers should be required to meet the same obligations that are imposed on incumbent LECs after finding that such regulation would be unnecessary to protect incumbents and would chill competitive entry into high cost areas.[309] The Joint Board recommended that the Commission find that a carrier may satisfy the criteria of section 214(e) regardless of the technology used by that carrier,[310] and that the Commission should exclude no class of carriers, such as price cap carriers, from eligible status.[311] The Joint Board also recommended that, at this time, the Commission adopt no national guidelines to implement the statutory requirement that carriers advertise the availability and rates of federally supported services throughout their service areas.[312] Further, the Joint Board found that the plain language of section 214(e)(1) precludes states from requiring eligible carriers to offer service wholly over their own facilities,[313] and also precludes states from designating "pure" resellers as eligible carriers.[314] The Joint Board recommended that the Commission reject arguments that it forbear from the section 214(e)(1) facilities requirement because the record before it did not demonstrate that the three statutory criteria for forbearance had been met.[315] Finally, the Joint Board recommended that the Commission not adopt rules to implement section 254(e), which requires that an eligible carrier shall use universal service funds only to support the services and facilities for which it is intended.[316]

2. Discussion

a. Eligibility Criteria

134. Adoption of Section 214(e)(1) Criteria. Consistent with the Joint Board's recommendation and the record before us, we adopt the statutory criteria contained in section

[308] Recommended Decision, 12 FCC Rcd at 169.

[309] Recommended Decision, 12 FCC Rcd at 170.

[310] Recommended Decision, 12 FCC Rcd at 169-70.

[311] Recommended Decision, 12 FCC Rcd at 171-72.

[312] Recommended Decision, 12 FCC Rcd at 174.

[313] Recommended Decision, 12 FCC Rcd at 173.

[314] Recommended Decision, 12 FCC Rcd at 172-73.

[315] Recommended Decision, 12 FCC Rcd at 173.

[316] Recommended Decision, 12 FCC Rcd at 174.

214(e)(1) as the rules for determining whether a telecommunications carrier is eligible to receive universal service support.[317] Pursuant to those criteria, only a common carrier may be designated as an eligible telecommunications carrier, and therefore may receive universal service support, and each eligible carrier must, throughout its service area: (1) offer the services that are supported by federal universal service support mechanisms under section 254(c);[318] (2) offer such services using its own facilities or a combination of its own facilities and resale of another carrier's services, including the services offered by another eligible telecommunications carrier; and (3) advertise the availability of and charges for such services using media of general distribution.[319]

135. Statutory Construction of Section 214(e). We conclude that section 214(e)(2) does not permit the Commission or the states to adopt additional criteria for designation as an eligible telecommunications carrier.[320] As noted by the Joint Board, "[s]ection 214 contemplates that any telecommunications carrier that meets the eligibility criteria of section 214(e)(1) *shall* be eligible to receive universal service support."[321] Section 214(e)(2) states that "[a] state commission *shall* . . . designate a common carrier that meets the requirements of paragraph (1) as an eligible telecommunications carrier . . . ."[322] Section 214(e)(2) further states that ". . . the State commission *may*, in the case of an area served by a rural telephone company, and *shall*, in the case of all other areas, designate more than one common carrier as an eligible telecommunications carrier for a service area designated by the State commission, *so long as each additional requesting carrier meets the requirements of paragraph (1)*."[323]

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[317] *See* Recommended Decision, 12 FCC Rcd at 169. *Accord* Ameritech comments at 8; California PUC comments at 9; CNMI comments at 39; CompTel comments at 13; GCI comments at 4; Maryland PSC at 8-9; Sprint comments at 20; Texas PUC comments at 5; TCA comments at 3; WorldCom comments at 14; AT&T reply comments at 13-14; CPI reply comments at 12. Section 254(e) does not govern the ability of carriers to receive funds distributed pursuant to section 254(h)(1)(B). *See* 47 U.S.C. § 254(h)(1)(B)(ii). We address eligibility for support for services provided to schools and libraries *infra* in section X.B.2.b.

[318] We note that, a carrier that currently is unable to provide single-party service, access to enhanced 911 service, or toll-limitation services may petition its state commission to receive universal service support for a designated period of time until the carrier has completed the network upgrades necessary to offer these services. *See supra* section IV and *infra* section VIII.

[319] 47 U.S.C. § 214(e); Recommended Decision, 12 FCC Rcd at 169-70.

[320] *Accord* CompTel comments at 13; WorldCom comments at 14; AT&T reply comments at 14; GCI reply comments at 2.

[321] Recommended Decision, 12 FCC Rcd at 171 (emphasis added).

[322] 47 U.S.C. § 214(e)(2) (emphasis added).

[323] 47 U.S.C. § 214(e)(2) (emphasis added).

Read together, we find that these provisions dictate that a state commission must designate a common carrier as an eligible carrier if it determines that the carrier has met the requirements of section 214(e)(1). Consistent with the Joint Board's finding, the discretion afforded a state commission under section 214(e)(2) is the discretion to decline to designate more than one eligible carrier in an area that is served by a rural telephone company; in that context, the state commission must determine whether the designation of an additional eligible carrier is in the public interest.[324] The statute does not permit this Commission or a state commission to supplement the section 214(e)(1) criteria that govern a carrier's eligibility to receive federal universal service support.

136. In addition, state discretion is further limited by section 253: a state's refusal to designate an additional eligible carrier on grounds other than the criteria in section 214(e) could "prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service"[325] and may not be "necessary to preserve universal service."[326] Accordingly, we conclude that the statute precludes states from imposing additional prerequisites for designation as an eligible telecommunications carrier.[327] Although section 214(e) precludes states from imposing additional eligibility criteria, it does not preclude states from imposing requirements on carriers within their jurisdictions, if these requirements are unrelated to a carrier's eligibility to receive federal universal service support and are otherwise consistent with federal statutory requirements.[328] Further, section 214(e) does not prohibit a state from establishing criteria for designation of eligible carriers in connection with the operation of that state's universal service mechanism, consistent with section 254(f).[329]

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[324] Recommended Decision, 12 FCC Rcd at 171-72. Before designating an additional eligible carrier for an area served by a rural telephone company, a state commission must find that the designation "is in the public interest." 47 U.S.C. § 214(e)(2).

[325] 47 U.S.C. § 253(a).

[326] 47 U.S.C. § 253(b).

[327] *See* California PUC comments at 9-10 (stating that it has already imposed carrier of last resort (COLR) obligations upon eligible carriers). *See also infra* this section for our discussion concluding that COLR regulation is unnecessary in light of the requirements of section 214(e).

[328] *See, e.g.,* 47 U.S.C. § 253(b).

[329] State adoption of a second set of eligibility criteria for a state universal service mechanism would have no effect upon the statutory eligibility criteria for the federal universal service mechanisms. Section 254(f) provides that: "A State may adopt regulations to provide for additional definitions and standards to preserve and advance universal service within that State only to the extent that such regulations adopt additional specific, predictable, and sufficient mechanisms to support such definitions or standards that do not rely on or burden Federal universal service support mechanisms." 47 U.S.C. § 254(f).

137. Consistent with the findings we make above, we disagree with GTE's assertion that the use of the phrases "a carrier that receives such support" and "any such support . . ." instead of the phrase "such eligible carrier" in section 254(e) indicates that Congress intended to require carriers to meet criteria in addition to the eligibility criteria in section 214(e).[330] We conclude that the quoted language indicates only that a carrier is not entitled automatically to receive universal service support once designated as an eligible telecommunications carrier. For example, a carrier must meet the section 214(e) criteria as a condition of its being designated an eligible carrier and *then* must provide the designated services to customers pursuant to the terms of section 214(e) in order to receive support. Indeed, the language of section 254(e), which states that "only an eligible telecommunications carrier designated under section 214(e) shall be *eligible* to receive" universal service support, suggests that a carrier is not automatically entitled to receive universal service support once designated as eligible.[331] The language of section 254(e) does not imply, however, that the Commission or the states may expand upon the criteria for being designated as an eligible carrier.

138. We further reject GTE's contention that our interpretation would convert section 214(e) into an entitlement and would allow an eligible carrier to receive universal service support "regardless of whether the [eligible carrier] abides by the federal funding mechanism, and regardless of whether the [eligible carrier] makes any real contribution to preserving and advancing universal service."[332] We disagree with GTE to the extent that it suggests that a carrier, once designated as an eligible carrier, is not required to continue to comply with federal universal service requirements.[333] As discussed immediately above, a carrier's continuing status as an eligible carrier is contingent upon continued compliance with the requirements of section 214(e) and only an eligible carrier that succeeds in attracting and/or maintaining a customer base to whom it provides universal service will receive universal service support. Moreover, contrary to the suggestion of GTE, an eligible carrier is

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[330] *See* GTE reply comments at 8. Section 254(e) provides, in relevant part: "A carrier that receives such support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended. Any such support should be explicit and sufficient to achieve the purposes of this section."

[331] 47 U.S.C. § 254(e) (emphasis added).

[332] GTE reply comments at 6-9 (*citing* 47 U.S.C. § 254(i), which states that the Commission and the states should ensure that universal service is available at rates that are just, reasonable, and affordable). *See infra* section VII.C. for a description of GTE's competitive bidding proposal.

[333] GTE reply comments at 7 (suggesting that designation as eligible carrier would be converted into entitlement granted regardless of whether eligible carrier abides by federal funding mechanism or makes contributions to preserving and advancing universal service).

"preserving and advancing universal service"[334] by providing each of the core services designated for support to low-income consumers or in rural, insular, or high cost areas,[335] and by offering those services in accordance with the specific eligibility criteria contained in section 214(e).

139. Additionally, we are not persuaded by GTE's argument that our interpretation of section 214(e) precludes adoption of its proposed competitive bidding mechanism and, therefore, violates the Commission's duty to consider this proposal fully.[336] First, the authority cited by GTE does not compel us to consider a proposal that is incompatible with the statute.[337] Second, as we explain below,[338] we find that we may be able to craft a competitive bidding mechanism that is compatible with the statute, including section 214(e), and we intend, consistent with the Joint Board's recommendation and as suggested by GTE, to continue to explore this option further.[339]

140. GTE contends that, even if the Commission may not add eligibility criteria, the Commission may nonetheless impose additional obligations on eligible carriers by conditioning the acceptance of federal universal service support upon compliance with particular obligations, as the Commission now does in the Lifeline Assistance program.[340] Moreover, GTE asserts that several recommendations of the Joint Board imply that the Joint Board believed that the Commission and the states have authority to impose additional eligibility criteria. For example, GTE cites as support for this view the Joint Board's recommendation that the Commission rely on service quality data collected by states to ensure

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[334] GTE reply comments at 7.

[335] The core services are defined *supra* in section IV.

[336] GTE reply comments at 11-13 n.22 (*citing* Commission's duty to consider fully all reasonable alternatives in *Brookings Mun. Tel. v. FCC*, 822 F.2d 1153, 1169 (D.C. Cir. 1987)).

[337] *Brookings Mun. Tel. v. FCC*, 822 F.2d at 1169 (D.C. Cir. 1987) ("[A]n agency has a duty to consider responsible alternatives to its chosen policy and to give a reasoned explanation for its rejection of such alternatives. Of course, . . . the duty extends only to significant and *viable* alternatives. . . .") (citations omitted) (emphasis added).

[338] *See infra* section VII.E.

[339] Recommended Decision, 12 FCC Rcd at 265-66; GTE reply comments at 43-46 (urging the Commission to issue a further notice of proposed rulemaking to "build upon the existing public record and create a sufficient record on the specifics of a workable auction mechanism").

[340] *See* GTE reply comments at 10.

that the first universal service principle -- that "quality services" be available -- is realized.[341] We reject GTE's argument because it appears to seek the imposition of additional eligibility criteria by recharacterizing the criteria as "conditions." Moreover, its reference to our existing Lifeline Assistance program is not relevant for purposes of construing section 214(e). The Commission created the existing Lifeline Assistance program in 1985 pursuant to its authority in sections 1, 4(i), 201, and 205. None of these provisions provides specific guidance on the interpretation of section 214(e).[342] In addition, contrary to GTE's suggestion, the Joint Board's consideration of whether to impose service quality standards did not reference the possibility of adopting additional criteria under section 214(e).[343] Rather, the Joint Board relied on the first universal service principle in section 254(b)(1) when it considered the Commission's authority to incorporate minimum service standards into the definitions of services designated for support pursuant to section 254(c)(1).[344]

141. The terms of section 214(e) do not allow us to alter an eligible carrier's duty to serve an entire service area. Consequently, we cannot, as WinStar requests, modify the requirements of section 214(e) for carriers whose technology limits their ability to provide service throughout a state-defined service area.[345] We note, however, that any carrier may, for example, use resale to supplement its facilities-based offerings in any given service area.[346]

142. Additional Obligations as a Condition of Eligibility. Several commenters maintain that, in order to create an equitable and sustainable federal universal service system and to prevent competitive carriers from attracting only those customers that order the most

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[341] GTE reply comments at 10-11 (*citing* Recommended Decision, 12 FCC Rcd at 140). The first universal service principle is contained in section 254(b)(1), which states that "[q]uality services should be available at just, reasonable, and affordable rates." 47 U.S.C. § 254(b)(1).

[342] We note that we are changing the Lifeline Assistance program in this Order pursuant to section 254 and sections 1, 4(i), 201, and 205. In doing so, however, we are designating a bundle of services for universal service support that are collectively referred to as Lifeline service. Thus, provision of Lifeline service is not an additional obligation of eligible carriers, but instead is a supported service that must be provided by eligible carriers. *See infra* section VIII.

[343] *See* Recommended Decision, 12 FCC Rcd at 140-41.

[344] *See* Recommended Decision, 12 FCC Rcd at 140-41. We note that the Joint Board declined to recommend that the Commission exercise its authority under section 254(b)(1) and (c)(1) to impose additional service quality standards. *See supra* section IV.E.

[345] WinStar comments at 12-13 (stating that its 39 GHz technology allows it to offer service only to customers within line-of-sight of its facilities).

[346] Section 214(e) expressly allows an eligible telecommunications carrier to offer service using a "combination of its own facilities and resale of another carrier's services . . ." 47 U.S.C. § 214(e)(1).

profitable services, the Commission must subject all eligible carriers to the regulatory requirements that govern ILECs, including pricing, marketing, service provisioning, and service quality requirements, as well as carrier of last resort (COLR) obligations.[347] We reject proposals to impose these additional obligations as a condition of being designated an eligible telecommunications carrier pursuant to section 214(e) because section 214(e) does not grant the Commission authority to impose additional eligibility criteria.

143. We emphasize that, even if we had the legal authority to impose additional obligations as a condition of being designated an eligible telecommunications carrier, we agree with the Joint Board that these additional criteria are unnecessary to protect against unreasonable practices by other carriers.[348] As the Joint Board explained, section 214(e) prevents eligible carriers from attracting only the most desirable customers by limiting eligibility to common carriers[349] and by requiring eligible carriers to offer the supported services and advertise the availability of these services "throughout the service area."[350] For this reason, we reject GTE's suggestion that we require carriers to offer the services designated for support on an unbundled basis.[351] Similarly, we agree with the Joint Board's analysis and conclusion that exit barriers comparable to those imposed on ILECs are unnecessary because section 214(e)(4) already imposes exit barriers similar to the protections

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[347] *See, e.g.*, Ameritech comments at 8; Ameritech comments, app. A at 37-42; Cincinnati Bell comments at 7-8; Evans Tel. Co. comments at 12-13; GTE comments at 50; Roseville Tel. Co. comments at 16; SBC comments at 19-20; USTA comments at 23-24; CWA reply comments at 9-10; USTA reply comments at 14. In addition, SBC and USTA argue that, irrespective of the obligations of ILECs, all eligible carriers should assume quality of service obligations. *See* SBC comments at 20; USTA at 23 (*citing* 47 U.S.C. § 254(b)(1)).

[348] Recommended Decision, 12 FCC Rcd at 170-71. We note that, in the *Local Competition Order*, we concluded that states may not unilaterally impose on non-ILECs the additional obligations imposed on ILECs by section 251(c). *Local Competition Order*, 11 FCC Rcd at 16,109-10. We stated that we did not anticipate imposing such additional obligations on a non-ILEC absent a clear and convincing showing that the non-ILEC occupies a position in the telephone exchange market comparable to the position held by an ILEC, that the non-ILEC has substantially replaced an ILEC, and that such treatment would serve the public interest, convenience, and necessity and the purposes of section 251. *Local Competition Order*, 11 FCC Rcd at 16,109-10.

[349] The Communications Act requires common carriers to furnish "communications service upon reasonable request therefore," 47 U.S.C. § 201(a), and states that "[i]t shall be unlawful for any common carrier to make any unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities, or services . . . ." 47 U.S.C. § 202(a).

[350] 47 U.S.C. § 214(e)(1).

[351] GTE comments at 16, 49-50.

imposed by traditional state COLR regulation.[352] We conclude that additional exit barriers are not only incompatible with the requirements of section 214(e)(1), but also that they are not warranted: parties have neither demonstrated that the exit barriers set forth in section 214(e)(4) are significantly different from the restrictions contained in traditional state COLR requirements,[353] nor have they demonstrated that the section 214(e) requirements are insufficient to protect subscribers. Moreover, we are reluctant to impose additional exit barriers or other additional requirements on carriers seeking to offer local service based on our finding that such additional requirements would raise potential competitors' expected costs of entry and thus discourage competition. Finally, for the reasons stated above, we reject other suggestions that we impose additional criteria for designation as an eligible telecommunications carrier because the proponents of these suggestions have presented insufficiently persuasive justifications for their inclusion.[354]

144. We further conclude that adopting the eligibility criteria imposed by the statute without elaboration is consistent with the Joint Board's recommended principle of competitive neutrality because, once the forward-looking and more precisely targeted high cost methodology is in place, all carriers will receive comparable support for performing comparable functions. Several ILECs assert that the Joint Board's recommendation not to impose additional criteria is in conflict with its recommended principle of competitive neutrality because some carriers, such as those subject to COLR obligations or service quality regulation, perform more burdensome and costly functions than other carriers that are eligible

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[352] Recommended Decision, 12 FCC Rcd at 171. Pursuant to section 214(e)(4) of the Act, an eligible carrier seeking to exit a service area served by more than one eligible carrier must notify the relevant state commission of that carrier's intent to relinquish its designation as an eligible carrier. The Act then requires the state commission, before permitting the carrier to cease providing service, to ensure that the remaining carriers will serve the relinquishing carrier's customers. The state commission must also require notice sufficient to permit any remaining eligible carrier to purchase or construct adequate facilities. 47 U.S.C. § 214(e)(4).

[353] *See, e.g.,* New Mexico Stat. Ann. § 63-9A-6.2 ("any telecommunications company which has a certificate of public convenience and necessity permitting it to provide message telecommunications service . . . shall not be allowed to terminate or withdraw from providing message telecommunications service . . . without an order of the commission upon a finding there is another telecommunications company in place capable of providing service without interruption.").

[354] *See* MFS comments at 7 (suggesting that Commission require eligible carriers to adhere to technical standards that Rural Utility Service imposes upon its borrowers); Ohio PUC reply comments at 3-4 (suggesting that, as condition of eligibility, Commission require non-rural carriers to provide interconnection under section 251(c)(2), unbundled network elements under section 251(c)(3), and wholesale services under section 251(c)(4)); CWA reply comments at 8 (suggesting that Commission foreclose carriers that violate National Labor Relations Act from receiving universal service support for twelve-month period following National Labor Relations Board decision of labor-law violation). *See also supra* our discussion in section IV regarding the merits of MFS's suggestion.

for the same amount of compensation.[355] The statute itself, however, imposes obligations on ILECs that are greater than those imposed on other carriers,[356] yet section 254 does not limit eligible telecommunications carrier designation only to those carriers that assume the responsibilities of ILECs. We find that the Joint Board correctly concluded that the imposition of additional eligibility criteria would "chill competitive entry into high cost areas."[357] We agree with the Joint Board's finding and conclude that the imposition of additional criteria, to the extent that they would preclude some carriers from being designated eligible pursuant to section 214(e), would violate the principle of competitive neutrality.

145. Treatment of Particular Classes of Carriers. We agree with the Joint Board's analysis and recommendation that any telecommunications carrier using any technology, including wireless technology, is eligible to receive universal service support if it meets the criteria under section 214(e)(1).[358] We agree with the Joint Board that any wholesale exclusion of a class of carriers by the Commission would be inconsistent with the language of the statute and the pro-competitive goals of the 1996 Act.[359] The treatment granted to certain wireless carriers under section 332(c)(3)(A) does not allow states to deny wireless carriers eligible status.[360] We also agree with the Joint Board that non-ILECs and carriers subject to price cap regulation should be eligible for support.[361] We agree with the Joint Board that price cap regulation is an important tool for smoothing the transition to competition and that its use should not foreclose price cap companies from receiving universal service support.[362] We find that requiring price cap carriers to cover their costs of providing universal service through internal cross-subsidies, as Time Warner suggests, would violate the statutory

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[355] Ameritech comments at 7-8, 9; GTE comments at 13-14, 48; SBC comments at 22; CWA reply comments at 10; GTE reply comments at 17.

[356] *Compare* 47 U.S.C. § 251(c) (imposing duties on incumbent local exchange carriers only) *with* 47 U.S.C. § 251(a), (b) (imposing duties on all telecommunications carriers and all local exchange carriers).

[357] Recommended Decision, 12 FCC Rcd at 170.

[358] *See* Recommended Decision, 12 FCC Rcd at 170 (stating that eligibility is not limited to a specific use of technology). *Accord* Vanguard comments at 2; Centennial reply comments at 13; Motorola reply comments at 16-17.

[359] Recommended Decision, 12 FCC Rcd at 169-70.

[360] *See* Centennial reply comments at 13; Recommended Decision, 12 FCC Rcd at 171-72.

[361] Recommended Decision, 12 FCC Rcd at 171-72.

[362] Recommended Decision, 12 FCC Rcd at 172.

directive that support for universal service be "explicit."[363] Consequently, in our decision here and in the *Access Charge Reform Order*, we adopt a plan to eliminate implicit subsidies as we identify and make explicit universal service support.[364] Because we have determined that we will not exclude price cap companies from eligibility, we agree with the Joint Board that we need not delineate the difference between price cap carriers and other carriers, as proposed in the Further Comment Public Notice.[365]

146. We do not adopt, at this time, a rule stating that a wireless carrier may receive support only if the wireless carrier is a customer's primary carrier and the customer pays unsubsidized rates for its wireline service, as suggested by NYNEX.[366] In addition, in light of our decision above that, under the modified existing high cost mechanism all business and residential connections will be supported, we conclude that such a rule is not necessary at this time.[367] We also note that, to the extent that NYNEX's proposal is designed to prevent wireless carriers from receiving support for customers that they do not serve, such a rule is unnecessary because federal laws against fraud already prohibit wireless carriers, or any other carriers, from receiving universal service support for customers that they do not serve.[368]

147. We note that not all carriers are subject to the jurisdiction of a state commission.[369] Nothing in section 214(e)(1), however, requires that a carrier be subject to the jurisdiction of a state commission in order to be designated an eligible telecommunications carrier. Thus tribal telephone companies, CMRS providers, and other carriers not subject to the full panoply of state regulation may still be designated as eligible telecommunications carriers.

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[363] 47 U.S.C. § 254(e).

[364] *Access Charge Reform Order* at section IV.A.

[365] Recommended Decision, 12 FCC Rcd at 172. *See also* Further Comment Public Notice at 5 (seeking comment on the definition of price cap carriers).

[366] *See* NYNEX comments at 5-6 (asserting that, because there is no dedicated loop for wireless service, wireless carrier could claim it was providing universal service to customer even if customer did not use, or own, mobile phone); CWA reply comments at 10-11.

[367] *See supra* section IV and *infra* section VII.

[368] *See, e.g.*, 18 U.S.C. § 1001 (imposing criminal penalties for, *inter alia*, making fraudulent statements to any agency of the United States); 47 U.S.C. § 502 (establishing conditions under which fines for violation of Communications Act generally are allowed), 47 U.S.C. § 503(b) (establishing conditions under which forfeiture penalties for violation of Act or Commission rules generally are allowed). *Accord* PCIA reply comments at 32.

[369] *See* letter from L. Marie Guillory, Regulatory Counsel, NTCA to William F. Caton, Secretary, FCC (May 7, 1997) (describing meeting on April 16, 1997).

148. Advertising. We agree with the Joint Board's analysis and recommendation that we not adopt, at this time, nationwide standards to interpret the requirement of section 214(e)(1)(B) that eligible carriers advertise, throughout their service areas, the availability of, and charges for, the supported services using media of general distribution.[370] We agree with the Joint Board that, in the first instance, states should establish any guidelines needed to govern such advertising.[371] We agree with the Joint Board that the states, as a corollary to their obligation to designate eligible telecommunications carriers, are in a better position to monitor the effectiveness of carriers' advertising throughout their service areas. We also agree with the Joint Board that competition will help ensure that carriers inform potential customers of the services they offer.[372] Although we decline to adopt nationwide standards for interpreting section 214(e)(1)(B), we encourage states, as they determine whether to establish guidelines pursuant to that section, to consider the suggestion of Roseville Tel. Co. that the section 214(e)(1)(B) requirement that carriers advertise in "media of general distribution" is not satisfied by placing advertisements in business publications alone, but instead compels carriers to advertise in publications targeted to the general residential market.[373] In response to the comments of CPI, we conclude that no further regulations are necessary to define the term "throughout."[374] The dictionary definition -- "in or through all parts; everywhere" -- requires no further clarification.[375]

149. Relinquishment of Eligible Carrier Designation. We conclude that no additional measures are needed to implement section 214(e)(4), the provision that reserves to the states the authority to act upon an eligible carriers's request to relinquish its designation as an eligible carrier.[376] We note that we received no recommendation from the Joint Board with respect to this issue and that no commenter responded to the question asked in the Commission's NPRM that invited commenters to identify Commission regulations that are inconsistent with section 214(e)(4).[377]

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[370] Recommended Decision, 12 FCC Rcd at 174-75. *See* NPRM at para. 46 (seeking comment on whether Commission should adopt guidelines defining steps sufficient to meet section 214(e)(1)'s advertising requirement).

[371] Recommended Decision, 12 FCC Rcd at 174-75.

[372] Recommended Decision, 12 FCC Rcd at 174-75.

[373] *See* Roseville Tel. Co. comments at 16.

[374] CPI reply comments at 13 n.24.

[375] *See, e.g.,* WEBSTER'S II NEW RIVERSIDE UNIVERSITY DICTIONARY (1984).

[376] *See* 47 U.S.C. § 214(e)(4).

[377] NPRM at para. 49. *See also, e.g.,* 47 C.F.R. § 63.60-.100.

b. Section 214(e)(1) Facilities Requirement

150. Section 214(e)(1) requires that, in order to be eligible for universal service support, a common carrier must offer the services supported by federal universal service support mechanisms throughout a service area "*either using its own facilities or a combination of its own facilities and resale of another carrier's services (including the services offered by another eligible telecommunications carrier)*."[378] In interpreting the facilities requirement, we first address the meaning of the term "facilities" and then address the meaning of the phrase "own facilities."

151. Defining the Term "Facilities" in Section 214(e)(1). We note that the Joint Board made no recommendation regarding the type of facilities a carrier must provide to satisfy the facilities requirement of section 214(e)(1).[379] We interpret the term "facilities," for purposes of section 214(e), to mean any physical components of the telecommunications network that are used in the transmission or routing of the services designated for support under section 254(c)(1).[380] As discussed immediately below, we conclude that this interpretation strikes a reasonable balance between adopting a more expansive definition of "facilities," which would undermine the Joint Board's recommendation to exclude resellers from eligible status, and adopting a more restrictive definition of "facilities," which we fear would thwart competitive entry into high cost areas.

152. We adopt this definition of "facilities," in part, to remain consistent with the Joint Board's recommendation that "a carrier that offers universal service solely through reselling another carrier's universal service package" should not be eligible to receive universal service support.[381] We reject the suggestion of some commenters that we adopt a more expansive definition of facilities, based on our conclusion that such an interpretation would render meaningless the facilities requirement of section 214(e) by permitting any carrier, including a "pure" reseller, to meet the definition.[382] By encompassing only physical components of the telecommunications network that are used to transmit or route the

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[378] 47 U.S.C. § 214(e)(1)(A) (emphasis added). Hereinafter we will refer to this requirement as the "section 214(e) facilities requirement."

[379] *Compare, e.g.,* Cathey, Hutton comments at 7 (asserting that "facilities" should be defined as loop *and* switching facilities only) *with* EXCEL comments at 9 (asserting that billing offices should qualify as "facilities").

[380] For example, we would include within this definition: local loops, switches, transmission systems, and network control systems.

[381] Recommended Decision, 12 FCC Rcd at 173.

[382] *See, e.g.,* MFS reply comments at 13 n.32 (suggesting "*de minimis*" use of facilities would satisfy section 214(e)).

supported services, this definition, in effect, excludes from eligibility a "pure" reseller that claims to satisfy the facilities requirement by providing facilities through its own billing office or through some other facility that is not a "physical component" of the network, as defined in this Order.[383] We find that our determination to define "facilities" in this manner is consistent with congressional intent to require that at least some portion of the supported services offered by an eligible carrier be services that are not offered through "resale of another carrier's services."[384] For these reasons, we reject EXCEL's suggestion that a carrier that establishes a billing office would meet the definition of "facilities" for purposes of section 214(e).[385]

153. We also decline to adopt a more restrictive definition of the term "facilities," as some commenters suggest.[386] For example, we reject the suggestion that we define "facilities" as both loop *and* switching facilities based on our concern that such a restrictive definition would erect substantial entry barriers for potential competitors seeking to enter local markets and, therefore, would unduly restrict the class of carriers that may be designated as eligible telecommunications carriers.[387] Rather, we conclude that the definition of "facilities" that we adopt will serve the goals of universal service and competitive neutrality to the extent that it does not dictate the specific facilities that a carrier must provide or, by implication, the entry strategy a carrier must use and, therefore, will not unduly restrict the class of carriers that may be designated as eligible.

154. Whether the Use of Unbundled Network Elements Qualifies as a Carrier's "Own Facilities". We conclude that a carrier that offers any of the services designated for universal service support, either in whole or in part, over facilities that are obtained as unbundled network elements pursuant to section 251(c)(3) and that meet the definition of facilities set forth above,[388] satisfies the facilities requirement of section 214(e)(1)(A).[389]

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[383] *See, e.g.,* EXCEL comments at 9 (asserting that billing offices should qualify as "facilities").

[384] 47 U.S.C. § 214(e)(1)(A).

[385] *See* EXCEL comments at 9.

[386] *See, e.g.,* Cathey, Hutton comments at 7 (asserting that "facilities" should be defined as loop *and* switching facilities only).

[387] *See, e.g.,* Cathey, Hutton comments at 7.

[388] We note that, because the definition of "facilities" we adopt above differs from the statutory definition of "network element," not all unbundled network elements will meet the facilities requirement of section 214(e). *See* 47 U.S.C. § 153(29). Thus, for example, operations support systems functions (OSS) as defined in the *Local Competition Order*, would not meet the definition of "facilities" that we adopt herein. *See Local Competition Order*, 11 FCC Rcd at 15,763-68. *See also* 47 C.F.R. § 51.319(f).

155. In making this decision, we first look to the language of section 214(e)(1)(A), which references two classes of carriers that are eligible for support -- carriers using their "own facilities" and carriers using "a combination of [their] own facilities and resale of another carrier's services."[390] Neither the statute nor the legislative history defines the term "own" as that term appears within the phrase "own facilities" in section 214(e)(1)(A).[391] In addition, neither category in section 214(e)(1)(A) explicitly refers to unbundled network elements. Notwithstanding the lack of an express reference to unbundled network elements in section 214(e), however, we conclude that it is unlikely that Congress intended to deny designation as eligible to a carrier that relies, even in part, on unbundled network elements to provide service, given the central role of unbundled network elements as a means of entry into local markets.[392] Because the statute is ambiguous with respect to whether a carrier providing service through the use of unbundled network elements is providing service through its "own facilities" or through the "resale of another carrier's services," we look to other sections of the Act and to legislative intent to resolve the ambiguity.

156. In so doing, we conclude that Congress did not intend to deny designation as eligible to a carrier that relies exclusively on unbundled network elements to provide service in a high cost area, given that the Act contemplates the use of unbundled network elements as one of the three primary paths of entry into local markets.[393] We have consistently held that Congress did not intend to prefer one form of local entry over another.[394] As we recognized in the *Local Competition Order*, "[t]he Act contemplates three paths of entry into the local market -- the construction of new networks, the use of unbundled elements of the incumbent's

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[389] *Accord, e.g.,* Comptel comments at 13-14 (urging Commission to find that carriers that purchase access to unbundled network elements are eligible for universal service support). Section 251(c)(3) requires ILECs "to provide, to any requesting telecommunications carrier . . . nondiscriminatory access to network elements on an unbundled basis . . . . " 47 U.S.C. § 251(c)(3).

[390] 47 U.S.C. § 214(e)(1)(A).

[391] *See generally* 47 U.S.C. § 153; Joint Explanatory Statement at 141-42.

[392] *Local Competition Order*, 11 FCC Rcd at 15,509. If we were to determine that unbundled network elements are *neither* a carrier's "own facilities" *nor* "resale of another carrier's services," then a carrier that offers universal service by using facilities that it has constructed along with *a single unbundled network element* would be excluded from eligible status because the carrier would not be using the precise "combination" allowed under section 214(e) -- namely, a combination of "its own facilities" and "resale of another carrier's services." 47 U.S.C. § 214(e)(1). We cannot reconcile this result with the Joint Board's principle of competitive neutrality or the goals of universal service and section 254.

[393] 47 U.S.C. § 251(c)(3).

[394] *See, e.g., Local Competition Order*, 11 FCC Rcd at 15,509 ("Section 251 neither explicitly nor implicitly expresses a preference for one particular entry strategy.").

network, and resale. The 1996 Act requires us to implement rules that eliminate statutory and regulatory barriers and remove economic impediments to each."[395] In the Recommended Decision, the Joint Board explicitly stated that "[c]ompetitive neutrality" is "embodied in" section 214(e).[396] Indeed, the Joint Board recommended "that the Commission reject arguments that only those telecommunications carriers that offer universal service wholly over their own facilities should be eligible for universal service [support]."[397] Further, we agree with CompTel that the Joint Board's recommendation that a carrier may meet the eligibility criteria of section 214(e) "without regard to the technology used by that carrier" demonstrates that this interpretation is consistent with the Joint Board's approach.[398]

157. We conclude that the phrase "resale of another carrier's services" does not encompass the provision of service through unbundled network elements. The term "resale" used in section 251 refers to an ILEC's duty to offer, at wholesale rates, "any telecommunications service that the carrier provides at retail"[399] as well as the duty of every LEC not to prohibit "the resale of its telecommunications services."[400] Section 251 makes it clear that an ILEC's duty to offer retail services at wholesale rates is distinct from an ILEC's obligation to provide "nondiscriminatory access to network elements on an unbundled basis."[401] We find that the statute's use, in section 214(e)(1), of the term used in subsections 251(b)(1) and 251(c)(4) -- "resale" -- suggests that Congress contemplated that the provision of services via unbundled network elements was different from the "resale of another carrier's services." In addition, to interpret the phrase "resale of another carrier's *services*" to encompass the provision of a telecommunications service through use of unbundled network elements obtained from an ILEC would require the Commission to find that the provision of nondiscriminatory access to an unbundled network element by an ILEC is the provision of a "telecommunications service" -- an interpretation that is not consistent with the Act. A "network element" is defined as a "*facility* or *equipment* used in the provision of a telecommunications service" that also "includes features, functions, and capabilities that are

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[395] *Local Competition Order*, 11 FCC Rcd at 15,509.

[396] Recommended Decision, 12 FCC Rcd at 101.

[397] Recommended Decision, 12 FCC Rcd at 173.

[398] CompTel comments at 14 (*citing* Recommended Decision, 12 FCC Rcd at 170 n.513)

[399] 47 U.S.C. § 251(c)(4).

[400] 47 U.S.C. § 251(b)(1).

[401] 47 U.S.C. § 251(c)(3), (c)(4).

provided by means of such facility or equipment . . . ."[402] A "network element" is not a "telecommunications service."[403]

158. We conclude that, when a requesting carrier obtains an unbundled element, such element -- if it is also a "facility" -- is the requesting carrier's "own facilit[y]" for purposes of Section 214(e)(1)(A) because the requesting carrier has the "exclusive use of that facility for a period of time."[404] The courts have recognized many times that the word "own" -- as well as its numerous derivations -- is a "generic term" that "varies in its significance according to its use" and "designate[s] a great variety of interests in property."[405] The word "ownership" is said to "var[y] in its significance according to the context and the subject matter with which it is used."[406] The word "owner" is a broad and flexible word, applying not only to legal title holders, but to others enjoying the beneficial use of property.[407] Indeed, property may have more than one "owner" at the same time, and such "ownership" does not merely involve title interest to that property.[408]

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[402] 47 U.S.C. § 153(29) (emphasis added).

[403] 47 U.S.C. § 153(29). Section 153(46), in defining "telecommunications service," makes a clear distinction between "service" and "facilities" -- a "telecommunications service" is "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used." 47 U.S.C. § 153(46).

[404] *Local Competition Order*, 11 FCC Rcd at 15,635; *see also* BLACK'S LAW DICTIONARY 1106 (6th ed. 1990) ("ownership" is "a collection of rights to use and enjoy property" that may be "shared with one or more persons when the time of enjoyment is deferred or limited or when the use is restricted").

[405] BLACK'S LAW DICTIONARY 1105 (6th ed. 1990); 73 C.J.S. *Property* § 24 (1972) (citing cases).

[406] 73 C.J.S. *Property* § 26 (1972), *quoted in Blumenfield v. United States*, 306 F.2d 892 (8th Cir. 1962).

[407] *See, e.g., Colley v. Carleton*, 571 S.W.2d 572 (Tex. 1978) (The term "owner," as used in section of compensation statute dealing with partial taking, includes lessee for years as well as any other person who has interest in property); *Bowen v. Metropolitan Bd. of Zoning Appeals in Marion County* 317 N.E.2d 193, 200 (Ind. 1974) ("The only reasonable sense in which 'owner' could be said to be used on application form for zoning variance is in the sense of owner of the right to use the property, and would include lessee under 99 year lease."); *United States v. Ninety-Nine Diamonds*, 139 F. 961, 970-971 (8th Cir. 1905), *quoting Camp v. Rogers*, 44 Conn. 291, 298 (1877) ("A person who hired a carriage for a limited time was held to have a special property interest in it, and to be the owner within the meaning of a statute which provided a remedy against one who 'shall drive against another vehicle and injure its owner.'").

[408] 73 C.J.S. *Property* §§ 25-26 (1972); *Judd v. Landin*, 1 N.W.2d 861 (Minn. 1942); *United States v. Ninety-Nine Diamonds*, 139 F. 961 (8th Cir. 1905) ("The fact that the term 'owner' is not limited in its signification to one who holds a perfect title to property must not be overlooked. The word has other meanings, and must have its appropriate signification in each case in view of the subject, object, and terms of the legislation in which it is found. Thus, there may be many joint owners of the same property, yet each would undoubtedly be an owner.").

159. Additionally, we note that section 214(e)(1) uses the term "own facilities" and does not refer to facilities "owned by" a carrier. We conclude that this distinction is salient based on our finding that, unlike the term "owned by," the term "own facilities" reasonably could refer to property that a carrier considers its own, such as unbundled network elements, but to which the carrier does not hold absolute title.

160. In the context of section 214(e)(1)(A), unbundled network elements are the requesting carrier's "own facilities" in that the carrier has obtained the "exclusive use" of the facility for its own use in providing services, and has paid the full cost of the facility, including a reasonable profit, to the ILEC.[409] The opportunity to purchase access to unbundled network elements, as we explained in the *Local Competition Order*, provides carriers with greater control over the physical elements of the network, thus giving them opportunities to create service offerings that differ from services offered by an incumbent.[410] This contrasts with the abilities of wholesale purchasers, which are limited to offering the same services that an incumbent offers at retail.[411] This greater control distinguishes carriers that provide service over unbundled network elements from carriers that provide service by reselling wholesale service and leads us to conclude that, as between the two terms, carriers that provide service using unbundled network elements are better characterized as providing service over their "own facilities" as opposed to providing "resale of another carrier's services."

161. In addition, we conclude that our interpretation of the term "own facilities" is consistent with the goals of universal service and that any contrary interpretation would frustrate the goals of the Act and lead to absurd results. For example, it is appropriate for Congress to deny pure resellers universal service support because pure resellers receive the benefit of universal service support by purchasing wholesale services at a price based on the retail price of a service -- a price that already includes the universal service support payment received by the incumbent provider.[412]

162. Unlike a pure reseller, a carrier that provides service using unbundled network elements bears the full cost of providing that element, even in high cost areas. Section 252(d)(1)(A)(i) requires that the price of an unbundled network element be based on cost;[413] a carrier that purchases access to an unbundled network element incurs all of the forward-

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[409] *See* 47 U.S.C. § 252(d)(1).

[410] *Local Competition Order*, 11 FCC Rcd at 15,631-32, 15,667.

[411] *Local Competition Order*, 11 FCC Rcd at 15,631-32, 15,667.

[412] The eligibility of resellers is discussed *infra* this section.

[413] 47 U.S.C. § 252(d)(1)(A)(i).

looking costs associated with that element. As discussed below, we conclude that universal service support should be provided to the carrier that incurs the costs of providing service to a customer.[414] Because a carrier that purchases access to an unbundled network element incurs the costs of providing service, it is reasonable for us to find that such a carrier should be entitled to universal service support for the elements it obtains.

163. We conclude that interpreting the term "own facilities" to include unbundled network elements is the most reasonable interpretation of the statute, given Congress's intent that all three forms of local entry must be treated in a competitively neutral manner. For example, suppose that the cost of providing service to a customer in a high cost area, on a forward-looking basis, is $50.00 per month, and suppose that the universal service support payment for serving that customer is $20.00. This would leave $30.00 for the carrier to collect from the subscriber. A carrier that builds all the facilities it uses to provide service to that customer would be entitled to the $20.00 payment and would, assuming that it bills the customer $30.00, fully recover its $50.00 per-month costs. Under the pricing rule in section 252(d)(3), a carrier that serves the same customer by reselling wholesale service would receive a discount off of the *retail* rate of $30.00.[415] For example, a reseller might receive a 20 percent discount, which would result in a wholesale price of $24.00 per month, thus allowing it to charge, depending on its costs of doing business, a retail price of $30.00. As a result, both the carrier that constructs its facilities and the carrier that serves customers through resale benefit, directly or indirectly, from the full $20.00 per-customer universal service support payment. With regard to these two methods of providing service, therefore, the universal service high cost system is "competitively neutral."

164. If the term "own facilities" is interpreted *not* to include service provided through unbundled network elements, however, a carrier providing service using unbundled network elements would suffer a substantial cost disadvantage compared with carriers using other entry strategies. Under this interpretation, a carrier providing service using unbundled network elements to the same customer would pay the ILEC the full $50.00 forward-looking monthly cost to serve that customer, yet it would be unable to collect the $20.00 per-month support payment because it would not qualify as an "eligible carrier."[416] As a result, the costs this carrier must recover from its customer would be well above the amount that a carrier serving a customer using facilities it constructed, or a carrier serving a customer using

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[414] *See infra* section VII.

[415] 47 U.S.C. § 252(d)(3) (requiring wholesale rates to be based on retail rates excluding avoided costs).

[416] For example, if we were to conclude that unbundled network elements were not included within the term "own facilities," a cable operator that provides universal service through a mixture of unbundled network elements (such as switching capabilities) and cable lines that it constructed and maintains would not be an eligible carrier because it would not, in this situation, resell "another carrier's services."

wholesale service, must recover from its customer. Such a structure would create a strong disincentive for this type of entry and is not consistent with the Joint Board's principle of "competitive neutrality." In effect, excluding a competitive local exchange carrier (CLEC) that uses exclusively unbundled network elements from being designated an eligible carrier could make it cost-prohibitive for CLECs choosing this entry strategy to serve high cost areas because ILECs serving those areas will receive universal service support. We cannot reconcile these implications with the "pro-competitive" goals of the 1996 Act and the goals of universal service and section 254. As a result, the most reasonable interpretation of section 214(e)(1)(A) is that the phrase "own facilities" includes the provision of service through unbundled network elements, and that a carrier, as described above, that uses exclusively unbundled network elements to serve customers would be entitled to receive the $20.00 support payment, subject to the cap that we describe below,[417] that would allow it to compete with carriers utilizing other entry strategies.

165. To hold otherwise would threaten the central principles of the universal service system and the 1996 Act. In the *Local Competition Order*, we explicitly stated that, in enacting section 251(c)(3), Congress did not intend to restrict the entry of CLECs that use exclusively unbundled network elements.[418] Indeed, entry by exclusive use of unbundled elements might be common in high cost areas -- for example, a carrier considering providing service to a single high-volume customer or only to a portion of a high cost area might be encouraged to offer service using unbundled elements throughout an entire service area if it could compete with the incumbent and other entrants that may already be receiving a payment from the universal service fund.

166. If we interpreted the term "own facilities" not to include the use of unbundled network elements, the end result would be that the entry strategy that includes the exclusive use of unbundled network elements would be the *only* form of entry that would not benefit from, either directly or indirectly, universal service support. A carrier that has constructed all of its facilities would certainly be eligible for support under section 214(e)(1), as would an entrant that offers service through a mix of facilities that it had constructed and resold services. A pure reseller indirectly receives the benefit of the support payment, because, as discussed above, the retail rate of the resold service already incorporates the support paid to

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[417] We conclude below that a CLEC serving a customer in a high cost area exclusively through the use of unbundled network elements will receive the lesser of the total amount of support given to the ILEC or the price of the unbundled network elements to which it obtains access. We also conclude that the ILEC will receive the difference between the unbundled network element price and the support amount. *See infra* section VII; *see also infra* further discussion this section.

[418] *Local Competition Order*, 11 FCC Rcd at 15,666-67 (Congress did not intend to limit this form of entry by imposing a facilities-ownership requirement in conjunction with section 251(c)(3) because it "would seriously inhibit the ability of potential competitors to enter local markets through the use of unbundled elements, and thus would retard the development to local exchange competition.").

the underlying incumbent carrier. Such an environment -- in which some forms of entry are eligible for support but one form of entry is not -- is not "competitively neutral."[419] In addition, this outcome would create an artificial disincentive for carriers using unbundled elements to enter into high cost areas. Thus, a carrier may be discouraged from offering the supported services throughout a service area via unbundled elements *solely* because support may be available to its competitors and not to itself. By effectively precluding this form of entry and its attendant benefits, consumers in high cost areas would be denied the fullest range of telecommunications services that Congress sought to bring "to all regions of the Nation."[420]

167. Several commenters urge us to adopt an interpretation of the term "own facilities" that would exclude the use of unbundled network elements.[421] These commenters assert that, in light of the Joint Board's recommendation that support be "portable," a narrow interpretation of the section 214(e) facilities requirement is necessary to ensure that ILECs receive adequate funds to construct, maintain, and upgrade their telecommunications networks.[422] We are not persuaded by these arguments because we find that the pricing rule in section 252(d)(1) that applies to unbundled network elements assures that the costs associated with the construction, maintenance, and repair of an incumbent's facilities, including a reasonable profit, would already be recovered through the payments made by the carrier purchasing access to unbundled network elements.[423] The carrier purchasing access to those elements will, in turn, receive a universal service support payment.[424] To the extent that these commenters' arguments are premised on their contention that unbundled network element prices do not compensate ILECs for their embedded costs, and that ILECs are constitutionally entitled to recovery of their embedded costs, we will address that issue in a

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[419] If we were to determine that unbundled network elements are "resale of another carrier's services," then a carrier that offers universal service exclusively through the use of unbundled network elements would be excluded from eligible status because section 214(e) requires an eligible carrier to provide service, at least in part, over its own facilities. 47 U.S.C. § 214(e).

[420] 47 U.S.C. § 254(b)(3).

[421] *See, e.g.,* Lufkin-Conroe reply comments at 15-16.

[422] SBC comments at 21 (*citing* Recommended Decision, 12 FCC Rcd at 238); Lufkin-Conroe reply comments at 15-16.

[423] *See* 47 U.S.C. § 252(d)(1) (requiring, *inter alia*, that rates for unbundled network elements be based on cost and reasonable profit).

[424] *See infra* section VII where we conclude that providers who provide serving using exclusively unbundled network elements may not receive universal service support in excess of the cost to them of those elements.

later proceeding in our *Access Charge Reform* docket.[425]

168. Although the states have the ultimate responsibility under section 214(e) for deciding whether a particular carrier should be designated as eligible, we are fully authorized to interpret the statutory provisions that govern that determination. This language appears in a federal statute, establishing a federal universal service program. It is clearly appropriate for a federal agency to interpret the federal statute that it has been entrusted with implementing. Moreover, we believe it is particularly important for us to set out a federal interpretation of the "own facilities" language in section 214, particularly as it relates to the use of unbundled network elements. We note that the "own facilities" language in section 214(e)(1)(A) is very similar to language in section 271(c)(1)(A), governing Bell operating company (BOC) entry into interLATA services.[426] While we are not interpreting the language in section 271 in this Order, given the similarity of the language in these two sections, we would find it particularly troubling to allow the states unfettered discretion in interpreting and applying the "own facilities" language in section 214(e). In order to avoid the potential for conflicting interpretations from different states, we believe it is important to set forth a single, federal interpretation, so that the "own facilities" language is consistently construed and applied.

169. Level of Facilities Required to Satisfy the Facilities Requirement. We adopt the Joint Board's analysis and conclusion that a carrier need not offer universal service *wholly* over its own facilities in order to be designated as eligible because the statute allows an eligible carrier to offer the supported services through a combination of its own facilities and resale.[427] Although the Joint Board did not reach this issue, we find that the statute does not dictate that a carrier use a specific level of its "own facilities" in providing the services designated for universal service support given that the statute provides only that a carrier may use a "combination of its own facilities and resale" and does not qualify the term "own facilities" with respect to the amount of facilities a carrier must use. For the same reasons, we find that the statute does not require a carrier to use its own facilities to provide each of the designated services but, instead, permits a carrier to use its own facilities to provide at least one of the supported services.[428] By including carriers relying on a combination of facilities and resale within the class of carriers eligible to receive universal service support,

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[425] *Access Charge Reform Order* at section I.

[426] *Compare* section 214(e)(1)(A), "using its *own facilities or a combination of its own facilities and resale* of another carrier's services" *with* section 271(c)(1)(A), "telephone service may be offered . . . either exclusively over their *own telephone exchange service facilities or predominantly over their own telephone exchange service facilities in combination with the resale* of the telecommunications services of another carrier." 47 U.S.C. §§ 214(e)(1)(A), 271(c)(1)(A) (emphasis added).

[427] Recommended Decision, 12 FCC Rcd at 173.

[428] *See* EXCEL comments at 8.

and by declining to specify the level of facilities required, we believe that Congress sought to accommodate the various entry strategies of common carriers seeking to compete in high cost areas. We conclude, therefore, that, if a carrier uses its own facilities to provide at least one of the designated services, and the carrier otherwise meets the definition of "facilities" adopted above, then the facilities requirement of section 214(e) is satisfied. For example, we conclude that a carrier could satisfy the facilities requirement by using its own facilities to provide access to operator services, while providing the remaining services designated for support through resale.

170. In arriving at this conclusion, we compare Congress's use of qualifying language in the section 271(c)(1)(A) facilities requirement with the absence of such language in the section 214(e) requirement. Section 271(c)(1)(A) provides that a BOC that is seeking authorization to originate in-region, interLATA services must, *inter alia*, enter into interconnection agreements with competitors that offer "telephone exchange service either exclusively over their own facilities or *predominantly* over their own telephone exchange service facilities in combination with the resale of the telecommunications services of another carrier."[429] By contrast, section 214(e) does not mandate the use of any particular level of a carrier's own facilities.[430]

171. Several ILECs assert that eligible carriers that furnish only a *de minimis* level of facilities should not be entitled to receive universal service support.[431] ILECs are concerned that, unless a carrier is required to provide a substantial level of its own facilities throughout a service area, a CLEC may be able to receive a level of support in excess of its actual costs, and thereby gain a competitive advantage over ILECs.[432] For example, ILECs argue that, because the prices of unbundled network elements may be averaged over smaller geographic areas than universal service support, the cost that a competitive carrier will incur for serving a customer using unbundled network elements will not match the level of universal service support the CLEC will receive for serving that customer.[433]

172. This asymmetry could arise because of the procedures currently used to calculate the cost of serving a customer. Because it is administratively infeasible to calculate the precise cost of providing service to each customer in a service area, and because rate averaging and the absence of competition generally have allowed it, the cost of providing

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[429] 47 U.S.C. § 271(c)(1)(A) (emphasis added).

[430] 47 U.S.C. § 214(e)(1)(A).

[431] Lufkin-Conroe reply comments at 15-16.

[432] *See, e.g.,* SBC comments at 21.

[433] *See, e.g.,* NYNEX comments at 32-33.

service has been calculated over a geographic region, such as a study area,[434] and the total cost of providing service in that area has been averaged over the number of customers in that area.[435] This average cost provides the basis for calculating universal service support in that area.[436] To illustrate, the average cost of providing service in a study area might be $50.00 per customer, but the cost of providing service might be $10.00 in urban portions of the area, $40.00 in the suburban portions, and $100.00 in outlying regions. Although the cost of providing the supported services will be calculated at the study area level in 1998, the cost of unbundled network elements is calculated by the states, possibly over geographic areas smaller than study areas.[437] Thus, the total support given to a carrier per customer in a study area might be $20.00, but the price of purchasing access to unbundled network elements to serve a customer in that study area might be $10.00, $60.00, or $100.00, depending on where the customer is located. Consequently, a CLEC might pay $10.00 to purchase access to an unbundled network element in order to serve a customer in a city, but receive $20.00 in universal service support.

173. We emphasize that the uneconomic incentives described above are largely connected with the modified existing high cost mechanism that will be in place until January 1, 1999.[438] We also conclude, based on the reasons set forth immediately below, that the situation described by the ILECs will occur, at most, infrequently during this period. We conclude that the ILECs' concerns should be significantly alleviated when the forward-looking and more precisely targeted methodology to calculate high cost support becomes effective. Specifically, in our forthcoming proceeding on the high cost support mechanism that will take effect January 1, 1999, we intend to address fully any potential dissimilarities between the level of disaggregation of universal service support and the level of disaggregation of

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[434] A "study area" is usually an ILEC's existing service area in a given state. The study area boundaries are fixed as of November 15, 1984. MTS and WATS Market Structure: Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, *Decision and Order*, 50 Fed. Reg. 939 (*1985 Lifeline Order*) (adopting with minor modifications the Joint Board recommendations issued in MTS and WATS Market Structure: Amendment of the Commission's Rules and Establishment of a Joint Board, *Recommended Decision and Order*, 49 Fed. Reg. 48,325 (1984)).

[435] These calculations are performed by carriers that submit this data to NECA, which, in turn, submits it to the Commission as part of its duties pursuant to part 36 of our rules. *See generally* 47 C.F.R. § 36.601 *et seq.*

[436] *See infra* section VII.B for a more detailed explanation of the calculation of high cost support.

[437] The *Local Competition Order* required states to create a minimum of three rate zones for calculating the price of unbundled network elements. *Local Competition Order*, 11 FCC Rcd at 15,882-83. This requirement is now stayed, pending review in the U. S. Court of Appeals for the Eighth Circuit. *See supra* note 7.

[438] We discuss below other uneconomic incentives arising from the asymmetry between the price of unbundled network elements and the level of universal service support. *See infra* section VII.

unbundled network element prices.[439] Nevertheless, we agree with the ILECs that we should limit the ability of competitors to make decisions to enter local markets based on artificial economic incentives created under the modified existing mechanism.

174. To this end, we take the following actions to reduce the incentives that a CLEC may have to enter a rural or non-rural market in an attempt to exploit the asymmetry described above. First, we conclude that a carrier that serves customers by reselling wholesale service may not receive universal service support for those customers that it serves through resale alone.[440] In addition, we conclude below that a CLEC using exclusively unbundled network elements to provide the supported services will receive a level of universal service support not exceeding the price of the unbundled network elements to which it purchases access.[441]

175. In markets served by non-rural carriers, we conclude that the risk of the anticompetitive behavior described above is minimal because, as of January 1, 1999, universal service support for large high cost carriers will be determined using a forward-looking methodology that will more precisely target support. We doubt that carriers will incur the costs necessary to meet the eligibility requirements of section 214(e) in order to exploit this opportunity when the support mechanisms will soon change. Further, the incentive for a CLEC to enter an area served by a non-rural carrier to gain an unfair advantage is diminished because the level of universal service support per customer in these areas is small relative to the start-up costs of attracting customers and the cost of providing service to those customers using unbundled network elements.[442]

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[439] *See also infra* section VII.

[440] *See supra* this section and *infra* section VII.

[441] We further conclude *infra* that a CLEC will get the lesser of the unbundled network element price for the loop or the ILEC's per-line payment from the high cost loop support and LTS, if any. *See infra* section VII.D.1. *See also* section VII.D.2. for a discussion of portable support in areas served by rural ILECs.

[442] The total amount of explicit per-loop support for the BOCs, which provide service to over 75% of the nation's presubscribed access lines, ranges, according to our estimates, between approximately $.04 and approximately $.73 per customer. The highest level of universal service support that a CLEC could receive, according to our estimates, is $13.55, which occurs in the study area of United Telephone in Texas. In Texas, GTE receives $.28 per customer per month and SWBT receives no universal service support. This level of universal service support compares with a price range of $15.00 to $25.49 per month for each loop leased as an unbundled network element in Texas. *Arbitration Award*, Consolidated Dockets Nos. 16189, 16196, 16226, 16285, and 16290 (Public Utility Commission of Texas Nov. 7, 1996) at 40 (adopting an interim rate of $15.00 for SWBT); *Arbitration Award*, Docket Nos. 16300/16355 (Public Utility Commission of Texas Dec. 12, 1996) at 164 (adopting an interim rate of $25.49 for GTE). The amount of universal service support that a carrier receives per customer in a high cost area can be approximated by dividing a carrier's total support in a state by the number of loops the carrier has in that state. For example, BellSouth received $11,317,044.94 for 1,291,819

176. We also expect that state commissions, in the process of making eligibility determinations, will play an important part in minimizing the risk of anticompetitive behavior as described above. Under section 214(e)(3), a state commission must make a finding that designation of more than one eligible carrier is in the public interest in a service area that is served by a rural telephone company.[443] Accordingly, under section 214(e)(3), a state commission may consider whether a competitive carrier seeking designation as an eligible carrier will be able to exploit unjustly the asymmetry between the price of unbundled network elements and the level of universal service support. Under section 251(f), rural telephone companies are not required to provide, *inter alia*, nondiscriminatory access to unbundled network elements pursuant to section 251(c)(3) until the relevant state commission determines that a bona fide request under section 251(c) for such access "is not unduly economically burdensome, is technically feasible, and is consistent with section 254 (other than subsections (b)(7) and (c)(1)(D) thereof)."[444] Thus, state commissions may also consider whether a CLEC's request for nondiscriminatory access to unbundled network elements is consistent with universal service, and will be able to take into account the arguments of ILECs to the extent that they are not addressed by the measures discussed herein.

177. Location of Facilities for Purposes of Section 214(e). Although we conclude above that the term "facilities" includes any physical components of the telecommunications network that are used in the transmission or routing of the supported services, we find that the statute does not mandate that the facilities be physically located in that service area. For example, a switch located in San Antonio, Texas that is used to provide the supported services throughout the service area encompassing Dallas, Texas would be considered "facilities" for purposes of determining a carrier's eligibility to receive universal service support for the service area encompassing Dallas. We find that it is reasonable to draw a distinction between particular facilities based on the relationship of those facilities to the provision of specific services as opposed to their physical location within a service area both for reasons of promoting economic efficiency as well as competitive neutrality. Specifically, we find that allowing a carrier the flexibility to offer supported services in the service area encompassing San Antonio and in the service area encompassing Dallas through a single switch is economically efficient because it does not create artificial incentives to deploy redundant facilities when those facilities are not otherwise economically justified. In addition,

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loops in South Carolina in 1995. This calculation yields a support level of approximately $.73 per loop per month. *See NECA Annual Filing,* Study Area Detail at 33 (1996). The $.04 rate occurs for U S West in Idaho and BellSouth in Kentucky. *Id.* at 7, 15. *See also* STATISTICS FOR COMMUNICATIONS COMMON CARRIERS, tbl. 2.3 (1995-96 ed.)

[443] *See supra* section VI.B.2.a.

[444] 47 U.S.C. § 251(f)(1)(B). *See also* 47 U.S.C. § 253(f) (allowing state commission to require telecommunications carrier to meet eligibility criteria of section 214(e) in order to be permitted to provide service in service area served by rural telephone company).

we conclude that our determination not to impose restrictions based solely on the location of facilities used to provide the supported services is competitively neutral in that it will accommodate the various technologies and entry strategies that carriers may employ as they seek to compete in high cost areas.

178. Eligibility of Resellers. We adopt the Joint Board's analysis and conclusion that section 214(e)(1) precludes a carrier that offers the supported services solely through resale from being designated eligible in light of the statutory requirement that a carrier provide universal service, at least in part, over its own facilities.[445] EXCEL contends that the Joint Board's recommendation to exclude resellers is based on the flawed assumption that the meaning of the term "facilities" is commonly understood, and thus asserts that we should not adopt the Joint Board's recommendation.[446] We reject this assertion because, under any reasonable interpretation of the term "facilities," a "pure" reseller uses none of its own facilities to serve a customer. Rather, a reseller purchases *service* from a facilities owner and resells that *service* to a customer. We also are not persuaded by commenters' arguments that, unless a reseller receives support directly from federal universal service mechanisms, it will be forced to absorb higher costs incurred in providing services in high cost areas and, ultimately, to increase prices charged to customers in those areas.[447] As explained above, resellers should not be entitled to receive universal service support directly from federal universal service mechanisms because the universal service support payment received by the underlying provider of resold services is reflected in the price paid by the reseller to the underlying provider.[448]

179. We conclude that no party has demonstrated that the statutory criteria for forbearance have been met[449] and therefore we agree with the Joint Board that we cannot exercise our forbearance authority to permit "pure" resellers to become eligible for universal service support, as some commenters have proposed.[450] In order to exercise our authority under section 10(a) of the Act to forbear from applying a provision of the Act, we must

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[445] Recommended Decision, 12 FCC Rcd at 172-73.

[446] See EXCEL comments at 7-8 (*citing* Infrastructure Sharing Provisions in the Telecommunications Act of 1996, *Notice of Proposed Rulemaking*, CC Docket 96-237, FCC 96-456 (rel. Nov. 22, 1996) which sought comment on meaning of "telecommunications facilities").

[447] EXCEL comments at 5-6, 14-15; TRA reply comments at 11.

[448] *See infra* section VII.

[449] 47 U.S.C. § 160.

[450] Recommended Decision, 12 FCC Rcd at 173. *See, e.g.*, EXCEL comments at 11-13; Telco comments at 8-10; TRA comments at 15-16. *See also* 47 U.S.C. § 160.

determine that: (1) enforcement of the provision "is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory;" (2) enforcement of such provision "is not necessary for the protection of consumers;" and (3) "forbearance from applying such provision . . . is consistent with the public interest."[451] In addition, we must consider "whether forbearance . . . will promote competitive market conditions."[452] As previously discussed, if pure resellers could be designated eligible carriers and were entitled to receive support for providing resold services, they, in essence, would receive a double recovery of universal service support because they would recover the support incorporated into the wholesale price of the resold services in addition to receiving universal service support directly from federal universal service support mechanisms. Making no finding with respect to the first two criteria, we conclude that it is neither in the public interest nor would it promote competitive market conditions to allow resellers to receive a double recovery. Indeed, allowing such a double recovery would appear to favor resellers over other carriers, which would not promote competitive market conditions. Allowing resellers a double recovery also would be inconsistent with the principle of competitive neutrality because it would provide inefficient economic signals to resellers.

180. TRA cites the Commission's decision not to impose a facilities requirement with respect to section 251(c)(3) in the *Local Competition Order* to support its contention that the Commission should forbear from the facilities requirement in section 214(e).[453] TRA specifically cites the Commission's finding that any facilities requirement the Commission could construct "would likely be so easy to meet it would ultimately be meaningless."[454] In addition to our finding that the statutory forbearance criteria have not been met, we also reject this assertion because, unlike section 251(c)(3), which does not explicitly require a carrier to own facilities in order to obtain access to unbundled network elements, section 214(e)(1)(A) expressly mandates the use of a carrier's "own facilities" in the provision of the services designated for universal service support.[455]

c. Requirements of Section 254(e) Pertaining to Intended Uses of Universal Service Funds

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[451] 47 U.S.C. § 160(a).

[452] 47 U.S.C. § 160(b).

[453] TRA comments at 12 (*citing Local Competition Order*, 11 FCC Rcd at 15,670).

[454] TRA comments at 12 (*citing Local Competition Order*, 11 FCC Rcd at 15,670).

[455] *Compare Local Competition Order*, 11 FCC Rcd at 15,670 (interpreting section 251(c)(3)) *with* 47 U.S.C. § 214(e) and interpretation herein.

181. We adopt the Joint Board's recommendation that no additional guidelines are necessary to interpret section 254(e)'s requirement that a carrier that receives universal service support shall only use that support for the facilities and services for which it is intended.[456] We agree with the Joint Board's conclusion that the optimal approach to minimizing misuse of universal service support is to adopt mechanisms that will set universal support so that it reflects the costs of providing universal service efficiently.[457] We conclude that we will adopt the Joint Board's recommended approach to minimizing the misuse of support by taking steps to implement forward-looking high cost support mechanisms and implementing the rules set forth in our accompanying *Access Charge Reform Order*.[458] We also agree with the Joint Board that competitive markets, which we anticipate will develop over time, will minimize the incentives and opportunities to misuse funds.[459] We adopt the Joint Board's recommendation that we rely upon state monitoring of the provision of supported services to ensure that universal service support is used as intended until competition develops.[460] We agree with the Joint Board and the North Dakota PSC that, if it becomes evident that federal monitoring is necessary to prevent the misuse of universal service support because states are unable to undertake such monitoring, the Commission, in cooperation with the Joint Board, will consider the need for additional action.[461] In addition, we agree with the Joint Board that no additional rules are necessary to ensure that only eligible carriers receive universal service support because a carrier must be designated as an eligible carrier by a state commission in order to receive funding.[462] Finally, as discussed below, because the services included in the Lifeline program are supported services,[463] we note that only eligible carriers may receive

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[456] Recommended Decision, 12 FCC Rcd at 174. *See also* NPRM at para. 41 (seeking comment on this issue).

[457] Recommended Decision, 12 FCC Rcd at 174.

[458] *See infra* section VII; *Access Charge Reform Order* at section IV.A.

[459] Recommended Decision, 12 FCC Rcd at 174.

[460] Recommended Decision, 12 FCC Rcd at 174.

[461] Recommended Decision, 12 FCC Rcd at 174; North Dakota PSC comments at 2.

[462] Recommended Decision, 12 FCC Rcd at 174. We note that below we adopt a rule stating that the administrator of the universal service support mechanisms shall not disburse funds to a carrier providing service to customers until the carrier has provided, to the administrator, a true and correct copy of the decision of a state commission designating that carrier as an eligible telecommunications carrier. *See infra* section VI.E.

[463] We have determined that Lifeline service includes the services designated for high cost support as well as toll limitation service. *See infra* section VIII.

universal service support for these services, as required by section 254(e).[464]

C. Definition of Service Areas

1. Background

182. Section 214(e)(5) defines the term "service area" as "a geographic area established by a State commission for the purpose of determining universal service obligations and support mechanisms."[465] For areas served by a rural telephone company,[466] section 214(e)(5) provides that the term "service area" means the rural telephone company's study area[467] "unless and until the Commission and the States, after taking into account the recommendations of a Federal-State Joint Board instituted under section 410(c), establish a different definition of service area for such company."[468]

183. The Joint Board concluded that the states have primary responsibility for designating non-rural service areas.[469] In arriving at this conclusion, the Joint Board also strongly encouraged the states to designate service areas that are not unreasonably large.[470] The Joint Board recommended that rural telephone companies' existing study areas be used as service areas for the purposes of section 214(e)(5).[471] Finally, the Joint Board found that it would be consistent with the Act for the Commission to base the actual level of support a carrier receives on a high cost area that is a sub-unit of a state-designated service area.[472]

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[464] *See infra* section VIII.

[465] 47 U.S.C. § 214(e)(5).

[466] The term "rural telephone company" is defined at 47 U.S.C. § 153(37). This definition is reproduced *supra* at a note to section VI.B.1.

[467] The term "study area" is defined *supra* at a note to section VI.B.2.b.

[468] Hereinafter we refer to a service area served by a rural telephone company as a "rural service area" and all other service areas as "non-rural service areas."

[469] Recommended Decision, 12 FCC Rcd at 179.

[470] Recommended Decision, 12 FCC Rcd at 179.

[471] Recommended Decision, 12 FCC Rcd at 179.

[472] Recommended Decision, 12 FCC Rcd at 181-82.

2. Discussion

a. Non-Rural Service Areas

184. State Adoption of Non-Rural Service Areas. We adopt the Joint Board's finding that subsections 214(e)(2) and 214(e)(5) require state commissions to designate the area throughout which a non-rural carrier must provide universal service in order to be eligible to receive universal service support.[473] We agree with the Joint Board that, although this authority is explicitly delegated to the state commissions, states should exercise this authority in a manner that promotes the pro-competitive goals of the 1996 Act as well as the universal service principles of section 254.[474] We also adopt the Joint Board's analysis and recommendation that states designate service areas that are not unreasonably large.[475] Specifically, we conclude that service areas should be sufficiently small to ensure accurate targeting of high cost support and to encourage entry by competitors.[476] We also agree with the Joint Board's determination that large service areas increase start-up costs for new entrants, which might discourage competitors from providing service throughout an area because start-up costs increase with the size of a service area and potential competitors may be discouraged from entering an area with high start-up costs.[477] As such, an unreasonably large service area effectively could prevent a potential competitor from offering the supported services, would not be competitively neutral, would be inconsistent with section 254, and would not be necessary to preserve and advance universal service.

185. We agree with the Joint Board that, if a state commission adopts as a service area for its state the existing study area of a large ILEC, this action would erect significant barriers to entry insofar as study areas usually comprise most of the geographic area of a state, geographically varied terrain, and both urban and rural areas. We concur in the Joint Board's finding that a state's adoption of unreasonably large service areas might even violate several provisions of the Act.[478] We also agree with the Joint Board that, if a state adopts a service area that is simply structured to fit the contours of an incumbent's facilities, a new entrant, especially a CMRS-based provider, might find it difficult to conform its signal or service area to the precise contours of the incumbent's area, giving the incumbent an

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[473] Recommended Decision, 12 FCC Rcd at 180-81.

[474] Recommended Decision, 12 FCC Rcd at 180-81.

[475] Recommended Decision, 12 FCC Rcd at 180-82.

[476] Recommended Decision, 12 FCC Rcd at 181.

[477] Recommended Decision, 12 FCC Rcd at 181.

[478] Recommended Decision, 12 FCC Rcd at 181.

advantage.[479] We therefore encourage state commissions not to adopt, as service areas, the study areas of large ILECs. In order to promote competition, we further encourage state commissions to consider designating service areas that require ILECs to serve areas that they have not traditionally served. We recognize that a service area cannot be tailored to the natural facilities-based service area of each entrant, but note that ILECs, like other carriers, may use resold wholesale service or unbundled network elements to provide service in the portions of a service area where they have not constructed facilities. Specifically, as noted by the Joint Board, section 254(f) prohibits states from adopting regulations that are "inconsistent with the Commission's rules to preserve and advance universal service."[480] As noted by the Joint Board, state designation of an unreasonably large service area could also violate section 253 if it "prohibit[s] or ha[s] the effect of prohibiting the ability of an entity to provide any interstate or intrastate telecommunications service,"[481] and is not "competitively neutral" and "necessary to preserve and advance universal service."[482]

b. Rural Service Areas

186. Authority to Alter Rural Service Areas. We find that, in contrast with non-rural service areas, the Act requires the Commission and the states to act in concert to alter the service areas for areas served by rural carriers. Section 214(e)(5) states:

> In the case of an area served by a rural telephone company, 'service area' means such company's 'study area' unless and until *the Commission and the States*, after taking into account the recommendations of a Federal-State Joint Board instituted under section 410(c), establish a different definition of service area for such company.[483]

187. We conclude that the plain language of section 214(e)(5) dictates that neither the Commission nor the states may act alone to alter the definition of service areas served by rural carriers. In addition, we conclude that the language "taking into account" indicates that the Commission and the states must each give full consideration to the Joint Board's recommendation and must each explain why they are not adopting the recommendations

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[479] *See* Teleport comments at 5; WorldCom comments at 15; APC reply comments at 4.

[480] 47 U.S.C. § 254(f).

[481] 47 U.S.C. § 253(a).

[482] 47 U.S.C. § 253(b).

[483] 47 U.S.C. § 214(e)(5) (emphasis added). A "rural telephone company" is defined at 47 U.S.C. § 153(37); this definition is reproduced *supra* at a note to section VI.B.1. The term "study area" is defined *supra* at a note to section VI.B.2.b.

included in the most recent Recommended Decision or the recommendations of any future Joint Board convened to provide recommendations with respect to federal universal service support mechanisms. Furthermore, although the Joint Board did not address this issue, we conclude that the "pro-competitive, de-regulatory" objectives of the 1996 Act would be furthered if we minimize any procedural delay caused by the need for federal-state coordination on this issue.[484] Therefore, we conclude that we should determine, at this time, the procedure by which the state commissions, when proposing to redefine a rural service area, may obtain the agreement of the Commission.

188. Under the procedures we adopt, after a state has concluded that a service area definition different from a rural telephone company's study area would better serve the universal service principles found in section 254(b), either the state or a carrier must seek the agreement of the Commission. Upon the receipt of the proposal, the Commission will issue a public notice on the proposal within 14 days. If the Commission does not act upon the proposal within 90 days of the release date of the public notice, the proposal will be deemed approved by the Commission and may take effect according to the state procedure.[485] If the Commission determines further consideration is necessary, it will notify the state commission and the relevant carriers and initiate a proceeding to determine whether it can agree to the proposal. A proposal subject to further consideration by the Commission may not take effect until both the state commission and this Commission agree to establish a different definition of a rural service area, as required by section 214(e)(5). Similarly, if the Commission initiates a proceeding to consider a definition of a rural service area that is different from the ILEC's study area, we shall seek the agreement of the relevant state commission by submitting a petition to the relevant state commission according to that state commission's procedure. No definition of a rural service area proposed by the Commission will take effect until both the state commission and this Commission agree to establish a different definition. In keeping with our intent to use this procedure to minimize administrative delay, we intend to complete consideration of any proposed definition of a service area promptly.

189. Adoption of Study Areas. We agree with the Joint Board that, at this time, retaining the study areas of rural telephone companies as the rural service areas is consistent with section 214(e)(5) and the policy objectives underlying section 254.[486] We agree with the Joint Board that, if competitors, as a condition of eligibility, must provide services throughout a rural telephone company's study area, the competitors will not be able to target only the customers that are the least expensive to serve and thus undercut the ILEC's ability to provide

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[484] *See* Joint Explanatory Statement at 113.

[485] Although the Commission intends to fully coordinate the two proceedings, it is important to note that approval of a service area change would not indicate Commission approval of a study area waiver.

[486] Recommended Decision, 12 FCC Rcd at 179-80.

service throughout the area.[487] In addition, we agree with the Joint Board that this decision is consistent with our decision to use a rural ILEC's embedded costs to determine, at least initially, that company's costs of providing universal service because rural telephone companies currently average such costs at the study-area level.[488] Some wireless carriers have expressed concern that they might not be able to provide service throughout a rural telephone company's study area because that study area might be noncontiguous.[489] In such a case, we note that this carrier could supplement its facilities-based service with service provided via resale. In response to the concerns expressed by wireless carriers, however, we also encourage states, as discussed more fully below, to consider designating rural service areas that consist of only the contiguous portions of ILEC study areas. Further, we agree with TCA that any change to a study area made by the Commission should result in a corresponding change to the corresponding rural service area.[490] Thus, we encourage a carrier seeking to alter its study area to also request a corresponding change in its service area, preferably as a part of the same regulatory proceeding. If the carrier is not initiating any proceedings with this Commission,[491] it should seek the approval of the relevant state commission first, and then either the state commission or the carrier should seek Commission agreement according to the procedures described above. We agree with the Joint Board that this differing treatment of rural carriers sufficiently protects smaller carriers and is consistent with the Act.[492]

190. We also conclude, based on additional information presented to us in response to the Recommended Decision, that universal service policy objectives may be best served if a state defines rural service areas to consist only of the contiguous portion of a rural study area, rather than the entire rural study area. We conclude that requiring a carrier to serve a non-contiguous service area as a prerequisite to eligibility might impose a serious barrier to entry, particularly for wireless carriers.[493] We find that imposing additional burdens on wireless entrants would be particularly harmful to competition in rural areas, where wireless

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[487] Recommended Decision, 12 FCC Rcd at 179-80.

[488] Recommended Decision, 12 FCC Rcd at 180.

[489] Nextel comments at 9; Vanguard comments at 4.

[490] *See* TCA comments at 4.

[491] We note that we sought comment in the NPRM on whether to amend our rules to revise existing study area boundaries. NPRM at para. 45. Any potential changes in the method used to redefine study areas might result in a change in the procedure to obtain a waiver, or, might result in the need for fewer waivers.

[492] *See, e.g.,* 47 U.S.C. § 251(f)(1).

[493] *See* Cox comments at 7 (describing gaps of 70 to 80 miles between parts of Nebraska company's study area); Nextel comments at 9 (explaining that some wireless service providers are licensed within prescribed geographic regions).

carriers could potentially offer service at much lower costs than traditional wireline service.[494] Therefore, we encourage states to determine whether rural service areas should consist of only the contiguous portions of an ILEC's study area, and to submit such a determination to the Commission according to the procedures we describe above. We note that state commissions must make a special finding that the designation is in the public interest in order to designate more than one eligible carrier in a rural service area,[495] and we anticipate that state commissions will be able to consider the issue of contiguous service areas as they make such special findings.

191. We reject Cox's suggestion that carriers could cooperate with each other to provide service throughout a service area.[496] Given that section 214(e)(1) requires an eligible carrier to provide service "throughout" a service area, we find that the statute does not permit a cooperative arrangement, such as that advocated by Cox, because neither individual carrier could satisfy this explicit condition of eligibility.[497]

c. Support Areas

192. We agree with the Joint Board's analysis and conclusion that it would be consistent with the Act for the Commission to base the actual level of universal service support that carriers receive on the cost of providing service within sub-units of a state-defined service area, such as a wire center or a census block group (CBG).[498] We reject Bell Atlantic's argument that the language in section 214(e)(5) gives the states exclusive authority to establish non-rural service areas "for the purpose of determining universal service obligations and support mechanisms."[499] As the Joint Board concluded, the quoted language refers to the designation of the area throughout which a carrier is obligated to offer service and advertise the availability of that service, and defines the overall area for which the carrier

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[494] *See* Nextel comments at 1-2 (stating that in many circumstances wireless service providers offer only cost-efficient alternative for delivery of communications to rural and high cost areas); Vanguard comments at 2-3 (stating that wireless providers are well-suited to provide universal service in high cost areas, referring to Vanguard's provision of service to consumers who live in areas with extreme terrain in the Ohio Valley, and Vanguard's provision of service connecting fire watch towers in remote areas for Pennsylvania Park Service); *see also* Ameritech comments, app. A at 16 (noting that minimum efficient scale of wireless technology is lower for wireless than for wireline service).

[495] 47 U.S.C. § 214(e)(2).

[496] *See* Cox comments at 8.

[497] 47 U.S.C. § 214(e)(1).

[498] Recommended Decision, 12 FCC Rcd at 181-82. *See infra* discussion in section VII.

[499] Bell Atlantic comments at 14 (*citing* 47 U.S.C. § 214(e)(5)).

may receive support from federal universal service support mechanisms.[500] Bell Atlantic is therefore incorrect when it argues that the approach recommended by the Joint Board ignores the phrase "and support mechanisms."[501] The universal service support a carrier will receive will be based on the Commission's determination of the cost of providing the supported services in the service area designated by a state commission.[502]

193. We conclude that, consistent with our decision to use a modification of the existing high cost mechanisms until January 1, 1999, the Commission will continue to use study areas to calculate the level of high cost support that carriers receive.[503] Because we are continuing to use study areas to calculate high cost support until January 1, 1999, if a state commission follows our admonition to designate a service area that is not unreasonably large, that service area will likely be smaller than the federal support areas during that period. We conclude that the decision to continue to use study areas to calculate the level of high cost support is nonetheless consistent with the Act for two reasons. First, as the Joint Board found, the Act does not prohibit the Commission from calculating support over a geographic area that is different from a state-defined service area.[504] Second, so long as a carrier does not receive support for customers located outside the service area for which a carrier has been designated eligible by a state commission, our decision is consistent with section 214(e)(5)'s requirement that the area for which a carrier should receive universal service support is a state-designated service area. We agree with the Joint Board, however, that calculating support over small geographic areas will promote efficient targeting of support.[505] We therefore adopt the Joint Board's recommendation and conclude that, after January 1, 1999, we will calculate the amount of support that carriers receive over areas no larger than wire centers.[506] We will further define support areas as part of our continuing effort to perfect the method by which we calculate forward-looking economic costs.

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[500] Recommended Decision, 12 FCC Rcd at 181.

[501] *See* Bell Atlantic comments at 14.

[502] Sprint PCS comments at 9; SBC comments at 31. *See also* Letter from Jay C. Keithly, Sprint, to William F. Caton, FCC at exhibit 2 (Oct. 14, 1996); letter from Whitney Hatch, GTE to William F. Caton, FCC at 4-5 (Sept. 18, 1996).

[503] The term "study area" is defined *supra* at a note to section VI.B.2.b.

[504] Recommended Decision, 12 FCC Rcd at 181-82.

[505] Recommended Decision, 12 FCC Rcd at 181.

[506] *See infra* section VII.

D. Unserved Areas

1. Background

194. Section 214(e)(3) provides that, if no common carrier is willing to provide the services supported by universal service support mechanisms to a community or portion of a community that requests such services, "the Commission, with respect to interstate services, or a State, with respect to intrastate services, shall determine which common carrier or carriers are best able to provide such services to the requesting unserved community or portion thereof and shall order such carrier or carriers to provide such services for that unserved community or portion thereof."[507] Any carrier ordered to provide service to an unserved community is to be designated as the eligible telecommunications carrier for that community or portion of a community.[508] The Joint Explanatory Statement states that section 214(e)(3) "makes explicit the implicit authority of the Commission, with respect to interstate services, and a State, with respect to intrastate services, to order a common carrier to provide [the supported services]."[509]

195. Because of the lack of information in the record, the Joint Board recommended that the Commission not adopt particular rules implementing section 214(e)(3).[510] Although the Joint Board supported the use of competitive bidding,[511] it concluded that it could not recommend a particular competitive bidding proposal because no proposal before it was sufficiently detailed to support a recommendation.[512]

2. Discussion

196. We agree with the Joint Board that we should not adopt rules at this time governing how to designate carriers for unserved areas.[513] We conclude, as did the Joint Board, that the record remains inadequate for us to fashion a cooperative federal-state

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[507] 47 U.S.C. § 214(e)(3).

[508] 47 U.S.C. § 214(e)(3).

[509] Joint Explanatory Statement at 141.

[510] Recommended Decision, 12 FCC Rcd at 184.

[511] Recommended Decision, 12 FCC Rcd at 265.

[512] Recommended Decision, 12 FCC Rcd at 184.

[513] Recommended Decision, 12 FCC Rcd at 184.

program to select carriers for unserved areas, as proposed in the NPRM.[514] We conclude that, consistent with the Joint Board's recommendation, if, in the future, it appears that a cooperative federal-state program is needed, we will then revisit this issue and work with state commissions and the Joint Board to create a program. We seek information that will allow us to determine whether additional measures are needed. Therefore, we strongly encourage state commissions to file with the Common Carrier Bureau reports detailing the status of unserved areas in their states. In order to raise subscribership to the highest possible levels, we seek to determine how best to provide service to currently-unserved areas in a cost-effective manner. We seek the assistance of state commissions with respect to this issue.

197. We reject the arguments of TCA that the issue of how universal service should be made available in unserved areas is one for state commissions alone; section 214(e)(3) clearly apportions to the Commission the responsibility for designating a carrier to provide interstate services to unserved areas.[515] We also agree with the Joint Board that a properly structured competitive bidding system could have significant advantages.[516] We conclude, however, that the record is insufficient, at this time, to support the use of competitive bidding to select carriers for unserved areas.[517] We conclude below that the possibility of using competitive bidding warrants further inquiry and we intend, in cooperation with the Joint Board and the state commissions, to undertake this inquiry shortly.[518]

E. Implementation

198. The administrator of the universal service support mechanisms shall not disburse funds to a carrier providing service to customers until the carrier has provided, to the administrator, a true and correct copy of the decision of a state commission designating that carrier as an eligible telecommunications carrier. A state commission seeking to alter a rural service area has the choice of either filing itself, or requiring an affected eligible telecommunications carrier to file, a petition with the Commission seeking the latter's

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[514] *See* NPRM at para. 47. No specific program using competitive bidding to select carriers for unserved areas was proposed to the Joint Board, *see* Recommended Decision, 12 FCC Rcd at 182-84, and no program was proposed in response to the Recommended Decision.

[515] 47 U.S.C. § 214(e)(3) ("If no common carrier will provide [the supported services] to an unserved community . . . *the Commission, with respect to interstate services*, or a State commission, with respect to intrastate services, shall determine which common carrier or carriers are best able to provide such service . . . and shall order such carrier or carriers to provide such service . . . .") (emphasis added).

[516] Recommended Decision, 12 FCC Rcd at 265.

[517] Recommended Decision, 12 FCC Rcd at 184.

[518] *See infra* section VII.C.

agreement with the newly defined rural service area. We delegate authority to the Common Carrier Bureau to propose and act upon state proposals to redefine a rural service area.

VII. RURAL, INSULAR, AND HIGH COST

A. Overview

199. Informed by the further recommendations of the state members of the Joint Board, we implement the Joint Board's recommendations, including a specific timetable for implementation of federal universal service support to rural, insular and high cost areas. As the Joint Board recommended, we today establish that the level of support for service to a particular customer will ultimately be determined based upon the forward-looking economic cost of constructing and operating the network facilities and functions used to provide that service. As the Joint Board stated, forward-looking economic cost best approximates the costs that would be incurred by an efficient carrier in the market. Thus, as the Joint Board found, the use of forward-looking economic cost as the basis for determining support will encourage and permit economically correct levels of entry, investment, and innovation. Use of forward-looking economic cost helps us to ensure that we are providing the minimum support necessary for efficient provision of the supported services.

200. We further adopt the recommendation of the Joint Board that, in determining the amount of federal support, we should subtract a revenue benchmark from the forward-looking economic cost of providing the supported services, and that the federal universal service mechanisms for rural, insular, and high cost areas should provide support for a portion of the difference between the forward-looking economic cost and the revenue benchmark. As the Joint Board recommended, the revenue benchmark should take account not only of the retail price currently charged for local service, but also of other revenues the carrier receives as a result of providing service, including vertical service revenue and interstate and intrastate access revenues. Failure to include all revenues received by the carrier could result in substantial overpayment to the carrier. We also conclude that, because residential customers and single-line business customers pay different rates for service, the revenue benchmarks for these groups of subscribers should differ.

201. We also conclude that the federal universal service mechanisms for rural, insular, and high cost areas will support 25 percent of the difference between the forward-looking economic cost of providing the supported service and the appropriate revenue benchmark. Twenty-five percent approximates the cost of providing the supported network facilities that have historically been assigned to the interstate jurisdiction, and by funding the interstate costs, we will ensure that federal implicit universal service support is made explicit, consistent with section 254(e).

202. We do not, by this Order, attempt to identify existing state-determined intrastate implicit universal service support presently effectuated through intrastate rates or other state decisions, nor do we attempt to convert such implicit intrastate support into explicit federal universal service support. We believe that existing levels of implicit intrastate

universal service support are substantial. We find, however, that the states, acting pursuant to sections 254(f) and 253 of the Communications Act, must in the first instance be responsible for identifying implicit intrastate universal service support. We believe that, as competition develops, states may be compelled by marketplace forces to convert implicit support to explicit, sustainable mechanisms consistent with section 254(f). As states do so, we will be able to assess whether additional federal universal service support is necessary to ensure that quality services remain available at just, reasonable, and affordable rates. We recognize, however, that we will need to continue to consult with the states as they undertake this process. We will reconvene the Joint Board later this year to provide a working forum for such consultations.

203. Like the Joint Board, we do not anticipate that all carriers will begin to receive universal service support in rural, insular, and high cost areas based on forward-looking economic cost at the same time or even in an identical manner. The state Joint Board members favor having a period prior to the activation of a forward-looking mechanism in which carriers will receive support based on embedded costs. We agree with the state members and therefore adopt such plans for both rural and non-rural carriers. Non-rural carriers will begin to receive support based on forward-looking economic cost on January 1, 1999. Rural carriers' support will not begin to be based on forward-looking economic cost until further review. We anticipate that, at the time of such further review, we will set a date when rural carriers will begin to receive support based on forward-looking economic cost.

204. Consistent with the Joint Board's recommendations, until a carrier begins to receive support based upon forward-looking economic cost, the carrier will continue to receive support based upon the existing high cost fund, DEM weighting, and LTS programs. As further recommended by the Joint Board, rural carriers would not, on January 1, 2001, shift immediately from support based upon the existing high cost fund, DEM weighting, and LTS programs to support calculated based on forward-looking economic costs. Rather, consistent with the Joint Board's recommendation, rural carriers would gradually shift to a support system based on forward-looking economic cost at a date the Commission will set after further review, but in no event starting sooner than January 1, 2001.

205. We recognize that federal determinations of forward-looking economic cost must acknowledge state actions taken to meet state obligations imposed by the 1996 Act. Indeed, most states currently are conducting their own proceedings to determine the forward-looking economic cost of providing interconnection and access to unbundled network elements. States such as California and Pennsylvania that have already concluded universal service proceedings use cost studies to calculate the forward-looking economic cost of providing universal service. Our determinations of forward-looking economic cost for the purpose of determining federal universal service support for rural, insular, and high cost areas must be coordinated with these ongoing state proceedings. Failure to do so would risk underfunding universal service or overcompensating carriers in some areas. We also

recognize, however, that some states may lack the resources to conduct an examination of forward-looking economic costs for universal service purposes.

206. Accordingly, to determine the appropriate level of federal support for service to rural, insular, and high cost areas, we invite states to submit cost studies consistent with the criteria that we prescribe herein and subject to Commission review and approval. State studies must be based on forward-looking economic cost, be consistent with the study used for the state universal service program, and not impede the provision of advanced services. We encourage a state to use the same cost methodology to the extent possible for both its universal service program and its pricing of unbundled network elements. To assist the states, we enumerate below criteria for their cost studies. For states that do not elect to conduct their own cost studies, or for states that submit cost studies that do not meet the criteria that we prescribe, we will determine forward-looking economic cost according to the methodology that we will develop. By the end of June 1997, we will issue a Further Notice of Proposed Rule Making (FNPRM) seeking information to permit us to make our own estimates of forward-looking economic cost more reliable. The FNPRM will seek comment on a range of issues, and will explore options for a forward-looking economic cost methodology for calculating high cost support for non-rural carriers, including forward-looking cost studies and competitive bidding.

207. We agree with the Joint Board and commenters that there are many potential advantages to defining universal service support levels for rural, insular, and high cost areas through the use of a competitive bidding mechanism. We recognize, as did the Joint Board, that competitive bidding could supplement another forward-looking economic cost methodology in determining the universal service support levels because a properly structured bidding system requires competitors to reveal expected revenue opportunities. Accordingly, we will continue to review competitive bidding systems to determine whether competitive bidding could be used to determine universal service support through market-based mechanisms.

B. Background

208. Currently there are three mechanisms designed expressly to provide support for high cost and small telephone companies:[519] the Universal Service Fund (high cost assistance fund),[520] the DEM weighting program,[521] and LTS.[522]

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[519] For a more complete description of the existing universal service support mechanisms, *see* Common Carrier Bureau, *Preparation for Addressing Universal Service Issues: A Review of Current Interstate Support Mechanisms* (Feb. 23, 1996).

[520] 47 C.F.R. § 36.601 *et. seq.*

209. For high cost loops,[523] the jurisdictional separations rules[524] currently assign 25 percent of each ILEC's loop costs[525] to the interstate jurisdiction.[526] As a result, a portion of each ILEC's local loop costs is recovered through rates charged to its customers for interstate services.[527] For ILECs with above-average loop costs, the existing high cost assistance fund mechanism shifts an additional percentage of the loop costs to the interstate jurisdiction and permits those ILECs to recover this incremental allocation from the high cost assistance fund.[528] Each ILEC's embedded loop costs determine the support payments the ILEC will receive.

210. Currently, an ILEC is eligible for support if its embedded loop costs for a given study area exceed 115 percent of the national average loop cost.[529] ILECs with study areas[530] of 200,000 or fewer loops receive a greater percentage of their above-average loop

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[521] 47 C.F.R. § 36.125(b).

[522] 47 C.F.R. §§ 69.105, 69.502, 69.603(e), 69.612.

[523] "Subscriber loops" or "loops" are the connection between the telephone company's central office and the customer's premises. In the *Local Competition Order*, the Commission defined the loop, for unbundling purposes, as "a transmission facility between a distribution frame, or its equivalent, in an ILEC central office, and the network interface device at the customer premises." *Local Competition Order*, 11 FCC Rcd at 15,691.

[524] The Commission's jurisdictional separations rules are contained in Part 36 of the Commission's rules. 47 C.F.R. Part 36. The rules are designed to allocate property costs, revenues, expenses, taxes and reserves between the interstate and intrastate jurisdictions. *See* 47 C.F.R. § 36.1.

[525] Loop cost is the fixed cost of connecting customers to the ILEC central office. ILECs' local loop costs vary widely due to many factors, including subscriber density, terrain, local exchange size, and labor costs.

[526] 47 C.F.R. Part 36.

[527] The access charge rules currently require that these costs be recovered through SLCs and CCL charges. We are, however, revising the access charge structure for ILECs under price cap regulation in a separate proceeding. *See Access Charge Reform Order*.

[528] The high cost assistance fund is currently administered by NECA.

[529] The national average cost per loop based on year-end data for 1995 was $248.43. Universal Service Fund 1996 Submission of 1995 Study Results by the National Exchange Carrier Association (filed Oct. 1,1996). Therefore, under the existing rules a carrier would have to have loop costs exceeding $285.69 per year ($23.81 per month) before it would be eligible to receive high cost support funding.

[530] Carriers perform jurisdictional separations at the study area level. A "study area" is usually an ILEC's existing service area in a given state. The term "study area" is defined *supra* in section VI.B.2.b.

costs than those with study areas with more than 200,000 loops.[531] ILECs with study areas of 200,000 or fewer working loops recover from the fund an additional 65 percent of the unseparated cost per loop between 115 percent and 150 percent of the national average cost per loop, multiplied by the number of their working loops. This additional allocation of 65 percent coupled with the 25 percent allocation to the interstate for all carriers means that these companies allocate 90 percent of the loop costs between 115 percent and 150 percent of the national average to the interstate jurisdiction. These carriers receive an additional interstate allocation of 75 percent of the cost per loop that exceeds 150 percent of the national average cost per loop. That additional allocation, coupled with the base 25 percent allocation applicable to all carriers with 200,000 or fewer loops in their study area, means that carriers with loop costs greater than 150 percent of the national average recover 100 percent of their loop costs above 150 percent of the national average from the interstate jurisdiction. In other words, they receive a dollar from the interstate jurisdiction for each dollar of loop costs above 150 percent of the national average loop cost.

211. For ILECs with study areas of more than 200,000 working loops, the additional interstate allocation of unseparated loop costs recovered from the federal high cost fund is as follows: 10 percent of such costs between 115 percent and 160 percent of the national average, 30 percent of such costs between 160 percent and 200 percent of the national average, 60 percent of such costs between 200 percent and 250 percent of the national average, and 75 percent of such costs in excess of 250 percent of the national average. Today this program is funded entirely by interexchange carriers (IXCs).[532]

212. Our jurisdictional separations rules also include a second universal service support mechanism known as DEM weighting, which was designed to support switching costs for small telephone companies. When the DEM weighting mechanism was created, it was assumed that smaller telephone companies have higher local switching costs than larger ILECs because the smaller companies cannot take advantage of certain economies of scale. For ILECs with fewer than 50,000 access lines, the interstate DEM factor is weighted (multiplied by a factor of up to three, depending on the number of lines served by the carrier) to shift what would otherwise be intrastate costs to the interstate jurisdiction. Thus small ILECs assign a greater proportion of these local switching costs to the interstate jurisdiction than larger ILECs may allocate.[533] Currently, DEM weighting assistance is an implicit support mechanism recovered through switched access rates charged to interexchange carriers by those ILECs serving fewer than 50,000 lines. DEM weighting applies independent of, and

[531] 47 C.F.R. § 36.631(c), (d).

[532] Each IXC with at least .05 percent of presubscribed lines nationwide contributes to the fund an amount based on the number of its presubscribed lines. 47 C.F.R. § 69.116.

[533] 47 C.F.R. § 36.125(b).

unrelated to, the high cost assistance fund.

213. The third support mechanism currently in place is LTS. The LTS program supports carriers with higher-than-average loop costs by providing carriers that are members of the NECA pool with enough support to enable them to charge a nationwide average CCL interstate access rate.[534] Under the current LTS support system, NECA annually projects the common line revenue requirement (which includes an 11.25 percent return on investment) for ILECs that participate in the common line pool. NECA then calculates the average per-minute CCL charge that is charged by price cap ILECs,[535] and projects the revenues that ILECs participating in the NECA pool would expect to collect by charging that average CCL rate.[536] NECA then computes the total amount of LTS needed by subtracting the amount pooling carriers will receive in SLCs and CCL charges from the pool's projected revenue requirement. LTS is funded by ILECs that do not participate in the common line pool. Non-pooling ILECs' LTS contributions to the pool are set annually based on the total projected amount of LTS, converted to a monthly payment amount. The monthly payments received by the ILEC common line pool members are computed based on the pooling carriers' submissions to NECA of reported cost data (except for average schedule companies, whose monthly payments are based on average schedule data). As a result, each participating pool member does not receive an "LTS payment," but instead receives a payment from the "pooled" common line revenues. Non-pooling ILECs recover the LTS payments they make through their CCL charge to IXCs.

214. The Joint Board recommended that the amount of support a carrier receives for providing service in rural, insular, and high cost areas be calculated by subtracting a benchmark amount from the cost of service for a particular geographic area. The Joint Board recommended that the cost of service be determined by a forward-looking economic cost model.[537] The Joint Board found that, in order to ensure that universal service support

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[534] Prior to 1989, all ILECs were required to pool their carrier common line costs and revenues. Beginning in April 1989, ILECs were permitted to withdraw from the pool, but ILECs that choose to exit the pool must contribute enough so that ILECs remaining in the pool would be able to charge the same industry average CCL rates they would have charged if the pool were still mandatory for all ILECs. *See* MTS and WATS Market Structure; Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, *Report and Order*, 2 FCC Rcd 2953 (1987). *See infra* section XII.B.1.

[535] 47 C.F.R. § 69.105(b)(2), (3).

[536] *See* MTS and WATS Market Structure: Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, *Recommended Decision and Order*, 2 FCC Rcd 2324; MTS and WATS Market Structure: Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, *Report and Order*, 2 FCC Rcd 2953 (1987).

[537] Recommended Decision, 12 FCC Rcd at 185.

mechanisms send the correct signals for entry, investment, and innovation in the long run, the Commission should use forward-looking economic cost as the basis for determining support levels.[538] Consequently, the Joint Board recommended basing universal service support for eligible carriers on the forward-looking economic cost of building and operating the network needed to provide the services included in the list of services recommended for universal service support pursuant to section 254(c)(1).

215. The Joint Board stated that, in principle, using cost estimates generated by a model is a reasonable technique for determining forward-looking costs.[539] The Joint Board discussed the three cost models that had been presented during the proceeding but did not endorse a specific model.[540] The Joint Board concluded that, before a specific model could be selected, several issues would need to be resolved, including how the various assumptions regarding basic input levels among the models were determined, which input levels were reasonable, what the relationships were among the inputs, why certain functionalities included in one model were not present in the other models, and which of the unique set of engineering design principles for each model were most reasonable.[541]

216. Although it recommended using forward-looking economic costs calculated by using a cost model to determine high cost support for all eligible telecommunications carriers, the Joint Board found that the models as proposed could not precisely calculate small, rural carriers' costs.[542] The Joint Board therefore recommended that rural carriers not use a cost model immediately to calculate their support for serving rural high cost areas, but rather shift to a model over six years.[543] The Joint Board recommended that, for three years, starting on January 1, 1998, high cost assistance, DEM weighting, and LTS benefits for rural carriers be fixed based on historical per-line amounts. Rural carriers would then shift over a three-year period beginning January 1, 2001 to a mechanism for calculating support based on a cost

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[538] Recommended Decision, 12 FCC Rcd at 231-32.

[539] Recommended Decision, 12 FCC Rcd at 231-32.

[540] Recommended Decision, 12 FCC Rcd at 229, 234. The BCM, BCM2, CPM, and Hatfield Version 2.2, Release 2, models were submitted to the Joint Board for its consideration. *Id.* at 233-34. For a discussion of the BCM, BCM2, CPM, and Hatfield 2.2.2 models, *see id.* at 217-29. Appendix F of the Recommended Decision contained a review of the models. *See* Recommended Decision, 12 FCC Rcd at 529, App. F.

[541] Recommended Decision, 12 FCC Rcd at 234.

[542] Recommended Decision, 12 FCC Rcd at 234-35.

[543] The Joint Board recommended that the Commission define "rural" as those carriers that meet the statutory definition of a "rural telephone company." 47 U.S.C. § 153(47).

model.[544] The Joint Board recommended that, prior to the transition, the Commission work with the state commissions to review the model to ensure that the Commission considers the unique situations of rural carriers.[545] The Joint Board also concluded that, due to the unique nature of providing service in Alaska and insular areas, rural carriers serving those areas should not be shifted to a forward-looking cost methodology pending further review.

217. The Joint Board recommended that the benchmark used to calculate the support eligible telecommunications carriers would receive for serving rural, insular, and high cost areas be based on nationwide average revenue per line.[546] In addition, because it recommended that only primary residential and single-line business connections be supported, with single-line businesses receiving less support, the Joint Board recommended defining two benchmarks, one for residential service and a second for single-line business service.[547] According to the Joint Board, revenues per line are the sum of the revenue generated by local, discretionary,[548] access services and "others as found appropriate," divided by the number of loops served.[549] The Joint Board found that including revenues from those services would be consistent with the cost estimation process used in the models submitted to determine the cost of service in high cost support areas.[550]

218. On January 9, 1997, the Common Carrier Bureau released a staff analysis on the use of models for estimating forward-looking economic cost and sought comment on the

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[544] The Joint Board recommended that, beginning in the year 2001, and through the year 2003, that calculation of support be gradually shifted to a forward-looking economic cost methodology. In the year 2001, support would be based on 75 percent fixed levels and 25 percent cost model; in 2002, support would be based on 50 percent fixed levels and 50 percent cost model; in 2003, support would be based on 25 percent fixed levels and 75 percent cost model. Beginning in 2004, support would be calculated solely on a forward-looking economic cost methodology. Recommended Decision, 12 FCC Rcd at 236-237.

[545] Recommended Decision, 12 FCC Rcd at 235.

[546] Recommended Decision, 12 FCC Rcd at 246.

[547] Recommended Decision, 12 FCC Rcd at 247.

[548] Discretionary services include services that may be added, at the user's option, to basic local service, such as call waiting, call forwarding, and caller ID.

[549] Recommended Decision, 12 FCC Rcd at 246.

[550] Recommended Decision, 12 FCC Rcd at 246 (*citing* letter from Glenn Brown, U S West, to William F. Caton, FCC, dated Sep. 4, 1996, and letter from Richard N. Clarke, AT&T, to William F. Caton, FCC, dated Sep. 10, 1996.)

issues raised in the paper.[551] The staff presented a detailed analysis of the structure and input requirements of the cost models that had been submitted to the Commission and Joint Board for consideration.[552] The staff also raised several questions about the potential uses of models in several proceedings pending before the Commission, including this proceeding on universal service. The staff noted that the Joint Board had already recommended that the submitted models undergo refinement before they were used to set universal service support levels.[553] The Bureau sought comment on the different design assumptions that can or should be used in models when used for different purposes.[554]

219. Pursuant to the Joint Board's recommendation that we work with the state commissions to develop an adequate cost model to calculate forward-looking economic cost, on January 14 and 15, 1997, the federal staff of the Joint Board conducted workshops on the cost models on record in this proceeding. In a Public Notice issued on December 12, 1996, the staff announced the workshop and invited parties to submit cost models for discussion.[555] In response to the Public Notice, parties submitted three cost models: (1) the Benchmark Cost Proxy Model (BCPM) was submitted by U S West, Sprint, and Pacific Bell; (2) the Hatfield Model, Version 2.2, Release 2, developed by Hatfield Associates, was submitted by AT&T and MCI; and (3) the Telecom Economic Cost Model (TECM), developed by Ben Johnson Associates, Inc., was submitted by the New Jersey Ratepayer Advocate.[556] The workshops consisted of four round table discussions by representatives of the industry and the public on issues relating to the selection of a cost model for determining the cost of providing the

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[551] *See* Public Notice, Commission Staff Releases Analysis of Forward-looking Economic Cost Proxy Models, DA 97-56 (rel. Jan. 9, 1997).

[552] The Use of Computer Models for Estimating Forward-looking Economic Costs: A Staff Analysis (Jan. 9, 1997) at 4-7.

[553] The Use of Computer Models for Estimating Forward-Looking Economic Costs: A Staff Analysis (Jan. 9, 1997) at 5-6.

[554] *See* Public Notice, Commission Staff Releases Analysis of Forward-looking Economic Cost Proxy Models, DA 97-56 (rel. Jan. 9, 1997).

[555] *See* Public Notice, Federal-State Joint Board on Universal Service: Staff to Hold Workshops on Proxy Cost Models on January 14-15, 1997, CC Docket 96-45, DA 96-2091 (rel. Dec. 12, 1996).

[556] *See* Public Notice, Federal-State Joint Board on Universal Service: Agenda and Panelists Announced for Staff Workshops on Proxy Cost Models on January 14-15, 1997, CC Docket 96-45, DA 97-60 (rel. Jan. 9, 1997) ("January 9 Public Notice").

services supported by the universal service support mechanism.[557]

220. On March 26, 1997, the state members of the Joint Board filed a report with the Commission discussing their recommendations on a number of issues related to the use of a model to calculate the cost of providing the supported services.[558] Although acknowledging remaining problems with the models, the state members recommend that the Commission select one model as the one to determine universal service support in this Order in order to focus the efforts of industry participants and regulators.[559] The state members recommend that the Commission adopt a three-year phase-in for the use of a model by non-rural carriers to allow evaluation of the model's accuracy.[560] The state members also recommend that the Commission and Joint Board members and staff work with the administrator to monitor the use of the model.[561]

221. The state members recommend that, rather than the recommendation of the Joint Board, the Commission adopt an industry proposal regarding the determination of support for rural carriers before those carriers move to support based on a forward-looking economic cost methodology.[562] The state members further recommend that, during the period before rural carriers begin to draw support based solely on a model, each carrier continue to receive support based on all of the carrier's working lines, and not just its primary residential and single-line business lines.[563] The state members also depart from the Joint Board recommendation in recommending that rural carriers not be allowed to elect to draw support solely based on forward-looking economic cost until January 1, 2001, when all rural carriers would begin using a forward-looking economic cost methodology for calculating their high

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[557] The list of participants on each panel was set forth in the January 9 Public Notice. A transcript of the workshop was prepared by USTA and placed into the record or this proceeding. *See* Letter from Porter E. Childers, USTA, to William F. Caton, FCC, dated Jan. 29, 1977, attachment ("Workshop Transcript").

[558] *See* Letter from Kenneth McClure, Chair, State Members of the Federal-State Joint Board on Universal Service, to Reed E. Hundt, FCC (dated Mar. 26, 1997).

[559] State Members' Report on the Use of Cost Proxy Models, dated Mar. 26, 1997 ("State High Cost Report") at 1.

[560] State High Cost Report at 4.

[561] State High Cost Report at 5.

[562] *See* Letter from Porter Childers, USTA, to William F. Caton, FCC, dated Feb. 14, 1997 (ILEC Associations' February 14 *ex parte*); Letter from Porter Childers, USTA, to William F. Caton, FCC, dated Mar. 13, 1997 (ILEC Associations' March 13 *ex parte*).

[563] State High Cost Report at 3.

cost support.[564]

222. On April 21, 1997, a majority of the state members of the Joint Board filed a second report with the Commission regarding the selection of a cost model and a benchmark to be used with the model.[565] In this report, three of the five state members of the Joint Board recommend that the Commission narrow its focus to the BCPM as the best platform at this time from which to make revisions.[566] The majority state members assert, however, that the recommendation to select the BCPM is not a wholesale endorsement of all aspects of the model,[567] and discuss several aspects of the model, including the line counts used and the dispersion of loops within a CBG,[568] that they state will need to be refined before it is used.[569] Two state members of the Joint Board, however, dissent from the report's recommendation of the BCPM, and assert that convincing evidence is lacking for the selection of either BCPM or the Hatfield 3.1 as the appropriate model.[570] The majority of the state members reiterate that the Commission should adopt a three-year phase-in for non-rural carriers, and state that such a transition would allow for evaluation of the accuracy of the model and continued examination of other methods of calculating universal service support.[571] These state members of the Joint Board depart from the Joint Board recommendation that a nationwide average revenue benchmark be used, and recommend the use of a benchmark based on the national average cost of service as determined by the BCPM.[572]

C. Universal Service Support Based on Forward-Looking Economic Cost

1. Overview

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[564] State High Cost Report at 4.

[565] Majority State Members' Second Report on the Use of Cost Proxy Models, dated Apr. 21, 1997 ("Majority State Members' Second High Cost Report").

[566] Majority State Members' Second High Cost Report at 7.

[567] Majority State Members' Second High Cost Report at 8.

[568] A census block group is a geographic area defined by he Bureau of the Census which contains approximately 400 households.

[569] Majority State Members' Second High Cost Report at 9-13.

[570] Dissenting Statement of Chairman Julia Johnson and Chairman Sharon Nelson, dated Apr. 22, 1997 ("Johnson/Nelson Dissent") at 1.

[571] Majority State Members' Second High Cost Report at 15.

[572] Majority State Members' Second High Cost Report at 14.

223. We agree with the Joint Board's recommendation that federal support should be calculated by determining the forward-looking economic cost of providing the supported services reduced by a nationwide revenue benchmark calculated on the basis of average revenue per line. Forward-looking economic cost will be determined at the state's election according to state-conducted forward-looking economic cost studies approved by the Commission, or cost models developed by the Commission, in consultation with the Joint Board. We further determine that, once we calculate the difference between forward-looking economic cost and the nationwide revenue benchmark, federal support will be 25 percent of that amount, corresponding to the percentage of interstate allocated loop costs. We will continue to consult with states, individually and collectively, to determine whether additional federal universal service support will be necessary to replace existing intrastate implicit universal support so that rates remain "just, reasonable and affordable."

2. Scope of Costs to be Supported

224. Use of Forward-Looking Economic Cost. We agree with the Joint Board's recommendation that the proper measure of cost for determining the level of universal service support is the forward-looking economic cost of constructing and operating the network facilities and functions used to provide the supported services as defined per section 254(c)(1).[573] We agree with the Joint Board and many commenters that, in the long run, forward-looking economic cost best approximates the costs that would be incurred by an efficient carrier in the market.[574] We concur with the Joint Board's finding that the use of forward-looking economic costs as the basis for determining support will send the correct signals for entry, investment, and innovation.[575]

225. We agree with the Joint Board that the use of forward-looking economic cost will lead to support mechanisms that will ensure that universal service support corresponds to the cost of providing the supported services, and thus, will preserve and advance universal service and encourage efficiency because support levels will be based on the costs of an efficient carrier.[576] Because forward-looking economic cost is sufficient for the provision of the supported services, setting support levels in excess of forward-looking economic cost

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[573] Recommended Decision, 12 FCC Rcd at 230-32. In using the term "forward-looking economic cost," we mean the cost of producing services using the least cost, most efficient, and reasonable technology currently available for purchase with all inputs valued at current prices.

[574] Recommended Decision, 12 FCC Rcd at 230. *See, e.g.,* ITAA comments at 2; Texas PUC comments at 5; Chicago reply comments at 13.

[575] *See* Business Software Alliance comments at 9-10; CNMI Representative comments; MCI reply comments at 2.

[576] *See* Recommended Decision, 12 FCC Rcd at 232.

would enable the carriers providing the supported services to use the excess to offset inefficient operations or for purposes other than "the provision, maintenance, and upgrading of facilities and services for which the support is intended."[577] This excess, by increasing the burden on all contributors to the support mechanisms, would also unnecessarily reduce the demand for other telecommunications services.

226. We also agree with the Joint Board that a forward-looking economic cost methodology is the best means for determining the level of universal service support.[578] We find that a forward-looking economic cost methodology creates the incentive for carriers to operate efficiently and does not give carriers any incentive to inflate their costs or to refrain from efficient cost-cutting. Moreover, a forward-looking economic cost methodology could be designed to target support more accurately by calculating costs over a smaller geographical area than the cost accounting systems that the ILECs currently use. We note that California, Ohio, and Pennsylvania are using forward-looking economic cost studies for determining support levels in their intrastate universal service programs.[579]

227. Embedded Cost. Several ILECs have asserted that only a universal service mechanism that calculates support based on a carriers embedded cost[580] will provide sufficient support.[581] As we discussed above, we agree with the Joint Board that the use of forward-looking economic cost will provide sufficient support for an efficient provider to provide the supported services for a particular geographic area. Thus, for the reasons articulated by the Joint Board, we conclude that the universal service support mechanisms should be based on forward-looking economic cost, and we reject the arguments for basing the support mechanisms on a carrier's embedded cost.[582]

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[577] 47 U.S.C. § 254(e).

[578] Recommended Decision, 12 FCC Rcd at 184.

[579] *See* Cal. P.U.C. R.95-01-020/I.95-01-021 (Oct. 25, 1996); Public Utility Commission of Ohio, Commission Investigation Into the Establishment of Local Exchange Competition and Other Competitive Issues, *Entry on Rehearing,* Case No. 95-845-TP-COI (Nov. 7, 1996); Pennsylvania Public Utility Commission, Formal Investigation to Examine and Establish Updated Universal Service Principles and Policies for Telecommunications Services in the Commonwealth, *Opinion and Order,* Docket No. I-00940035 (entered Jan. 28, 1997). As discussed below, most states are also currently using forward-looking economic cost studies in proceedings to set interconnection rates for pricing access to unbundled network elements.

[580] The term "embedded cost" refers to a carrier's historic loop or switching costs. The Joint Board used "embedded cost" as a synonym for the terms "booked cost" and "reported cost." *See* Recommended Decision, 12 FCC Rcd at 185 n.600.

[581] *See, e.g.,* Minnesota Coalition comments at 17; ITC reply comments at 5; SBC reply comments at 11.

[582] *See, e.g.,* Ameritech comments at 10; Roseville Tel. Co. comments at 11; SBC reply comments at 9.

228. As the Joint Board recognized, to the extent that it differs from forward-looking economic cost, embedded cost provide the wrong signals to potential entrants and existing carriers.[583] The use of embedded cost would discourage prudent investment planning because carriers could receive support for inefficient as well as efficient investments. The Joint Board explained that when "embedded costs are above forward-looking costs, support of embedded costs would direct carriers to make inefficient investments that may not be financially viable when there is competitive entry."[584] The Joint Board also explained that if embedded cost is below forward-looking economic cost, support based on embedded costs would erect an entry barrier to new competitors, because revenue per customer and support, together, would be less than the forward-looking economic cost of providing the supported services. Consequently, we agree with the Joint Board's conclusion that support based on embedded cost could jeopardize the provision of universal service.[585] We also agree with CPI that the use of embedded cost to calculate universal service support would lead to subsidization of inefficient carriers at the expense of efficient carriers and could create disincentives for carriers to operate efficiently.[586]

229. We also decline to adopt Bell Atlantic's proposal to use state-averaged embedded line cost for setting universal service support levels.[587] Under this proposal, states would receive universal service support if the statewide average cost for all carriers in that state exceed the nationwide average.[588] By recommending the use of forward-looking economic cost to establish universal service support levels, the Joint Board did not accept this proposal. Even though the use of state-averaged costs might lessen disincentives for efficient operation and investment present in the existing universal service mechanisms as Bell Atlantic claims, we do not find that Bell Atlantic's particular proposal would eliminate those disincentives. In addition, support flows under this proposal would not target support to carriers serving high cost areas in states with low average embedded cost. That is, a carrier that serves high cost areas may not receive support for those areas, if the cost of serving other low cost areas in the state results in a low overall average cost of serving the state as a whole.

230. "Legacy" Cost. Several commenters assert that the use of forward-looking economic cost necessitates the establishment of a separate mechanism to reimburse ILECs for

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[583] *See* Recommended Decision, 12 FCC Rcd at 232.

[584] Recommended Decision, 12 FCC Rcd at 232.

[585] Recommended Decision, 12 FCC Rcd at 232.

[586] *See* CPI reply comments at 4.

[587] *See* Bell Atlantic comments at 12-13.

[588] *See* Bell Atlantic NPRM comments at 8-9.

their "legacy cost,"[589] which they define to include the under-depreciated portion of the plant and equipment.[590] PacTel contends that moving to support mechanisms based on forward-looking economic cost would renege on a long-standing agreement between regulators and carriers regarding the recovery of the latter's costs.[591] Several ILECs further contend that unless we explicitly provide a mechanism for them to recover their under-depreciated costs, the use of forward-looking economic cost to determine universal service support would constitute a taking under the Fifth Amendment.[592] No carrier, however, has presented any specific evidence that the use of forward-looking economic cost to determine support amounts will deprive it of property without just compensation. Indeed, the mechanisms we are creating today provide support to carriers in addition to other revenues associated with the provision of service.[593]

231. Construction Costs. U S West proposes to establish a separate support mechanism for the cost of constructing facilities. Under U S West's proposal, the carrier that first constructed the facility to serve an end user would receive support for its construction costs, even if the end user switched to another carrier. The second carrier to serve the end user would receive support only for its operational expenses.[594] Under the U S West proposal, only the carrier that constructed first, generally an ILEC, except in currently unserved areas, would receive support to cover the facilities' construction costs. We observe that allowing only the ILEC to receive support for the construction of the facilities used to provide universal service would, however, discourage new entrants from constructing additional facilities in high cost areas, thereby discouraging facilities-based competition, in contravention of Congress's explicit goals. Further investigation is needed to determine whether there are special circumstances, such as the need to attract carriers to unserved areas or to upgrade facilities, in which it may or may not be reasonable to compensate one-time costs with one-time payments. Because we believe this issue should be examined further, we will consider this proposal in a future proceeding.

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[589] PacTel defines "legacy" cost as "the costs associated with recovery (and in the interim, return on investment) for past investments in plant and equipment, previously found to be used and useful and includable in the ratebase for the purposes of providing regulated telecommunications services." PacTel comments at 6.

[590] GTE comments at 31; PacTel comments at 8; U S West comments at 11.

[591] PacTel comments at 6-8.

[592] *See, e.g.,* Ameritech comments, att. at 4; GTE comments at 42; Western Alliance comments at 26-27.

[593] The issues related to legacy costs will be addressed in the Access Reform Proceeding. *See Access Charge Reform Order* at section I.

[594] U S West comments at 11-13.

3. Determination of Forward-Looking Economic Cost For Non-Rural Carriers

232. Having adopted the Joint Board recommendation that universal service support be based upon forward-looking economic cost, we next consider how such cost should be determined. The Joint Board found that cost models provide an "efficient method of determining forward-looking economic cost, and provide other benefits, such as the ability to determine costs at smaller geographic levels than would be practical using the existing cost accounting system."[595] The Joint Board also found that because they are not based on any individual company's costs, cost models provide a competitively neutral estimate of the cost of providing the supported services.[596] Based on those conclusions, the Joint Board recommended that the amount of universal service support a carrier would receive should be calculated by subtracting a benchmark amount from the cost of service for a particular geographic area, as determined by the forward-looking economic cost model.[597]

233. The Joint Board discussed the three cost models that had been presented to it during the proceeding, but did not endorse a specific model.[598] The Joint Board concluded that, before a specific model could be selected, several issues would need to be resolved, including how the various assumptions among the models regarding basic input levels were determined, which input levels were reasonable, what were the relationships among the inputs, why certain functionalities included in one model were not present in the other models, and which of the unique set of engineering design principles for each model were most reasonable.[599]

234. Three different forward-looking cost models were submitted to the Commission for consideration in response to the January 9 Public Notice: the BCPM; the Hatfield model; and the TECM.[600] These three models use many different engineering assumptions and input

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[595] Recommended Decision, 12 FCC Rcd at 230.

[596] Recommended Decision, 12 FCC Rcd at 232.

[597] Recommended Decision, 12 FCC Rcd at 185.

[598] Recommended Decision, 12 FCC Rcd at 229, 234. The Benchmark Cost Model (BCM), the Benchmark Cost Model 2 (BCM2), the Cost Proxy Model (CPM), and Hatfield Version 2.2, Release 2, models were submitted to the Joint Board for its consideration. *Id.* at 233-34. For a discussion of the BCM, BCM2, CPM, and Hatfield 2.2.2 models, *see id.* at 217-29. Appendix F of the Recommended Decision contained a review of the models. *See* Recommended Decision, 12 FCC Rcd at 529, app. F.

[599] Recommended Decision, 12 FCC Rcd at 234.

[600] A description of each of the models, as submitted to the Commission, is included in Appendix J.

values to determine the cost of providing universal service.[601] For example, Hatfield 3.1 uses loading coils in its outside plant to permit the use of longer copper loops, thereby reducing the amount of fiber required for outside plant.[602] In contrast, the BCPM relies more heavily on fiber and avoids the use of loading coils; this assumption increases the cost of service that BCPM predicts.[603] Another example is that Hatfield designs the interoffice network required to provide local service in a multiple switch environment, while the BCPM accounts for this interoffice service by allowing the user to input a switch investment percentage.[604]

235. There has been significant progress in the development of the two major models -- the BCPM and Hatfield 3.1 -- since the Joint Board made its recommendation. For example, the ability of both models to identify which geographic areas are high cost for the provision of universal service has been improved. The BCPM uses seven different density groups, rather than the six zones used in the BCM2, to determine for a given CBG the mixture of aerial, buried, and underground plant, feeder fill factors, distribution fill factors, and the mix of activities in placing plant, such as aerial placement or burying, and the cost per foot to install plant.[605] Hatfield also increased the number of density zones, going from six density zones in Hatfield Version 2.2.2 to nine in Hatfield 3.1.[606]

236. Other areas where the BCPM and Hatfield models have made advancements during this proceeding include assigning CBGs to the correct wire centers, the inclusion of costs associated with general support facilities, and recognition of multi-tenant housing. Previous versions of the models assigned CBGs to the closest serving wire center. BCPM

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[601] We intend to discuss the models, and the areas in which they need refinement, more fully in the FNPRM. At that time we will seek comments on these and other issues regarding the models, such as structure sharing, expenses, and depreciation rates.

[602] *See* Letter from Richard N. Clarke, AT&T, to William F. Caton, FCC, dated Feb. 28, 1997 (Hatfield Feb. 28 Submission). A loading coil is an induction device generally used with loops longer than 18,000 feet, that compensates for wire capacitance and boosts voice grade frequencies. *See* Newton's Telecom Dictionary (7th ed. 1994) at 611-12.

[603] *See* Letter from Alan Ciamporcero, Pacific Telesis, Warren Hannah, Sprint, and Glenn Brown, U S West, to Office of the Secretary, FCC, dated Jan. 31, 1997 (BCPM Jan. 31 Submission).

[604] *See* BCPM Jan. 31 Submission; Hatfield Feb. 28 Submission

[605] BCPM Jan. 31 Submission at 120.

[606] The highest density zone in Hatfield 2.2.2 -- greater than 2,500 lines per square mile -- has been broken into three zones for Hatfield 3.1 -- 2,550-5,000, 5,001-10,000, and more than 10,000 lines per square mile -- to better differentiate dense suburban from dense downtown areas. The second lowest density zone in Hatfield 2.2.2, 5-200 lines per square mile, was divided into two zones, 5-100 and 101-200 lines per square mile, to provide more fine-grained distinctions within low density areas. Hatfield Feb. 28 Submission at 8.

associates the CBG with the wire center that actually serves the center point or centroid of the CBG.[607] Hatfield 3.1 assigns each CBG to a wire center based on analysis of the NPA-NXXs in the CBG.[608] Although BCM2 omitted capital costs and expenses associated with general support facilities, these costs are now included in BCPM.[609] The Hatfield 3.1 model includes support capital cost and associated expenses for all of the general support asset accounts.[610] Hatfield 2.2 had omitted the cost associated with motor vehicles and other work equipment. The distribution algorithms of both models also have been enhanced to calculate the impact of multi-tenant housing on the amount of cable needed in the distribution network. In general, as more households are in multi-tenant units rather than single-family dwellings, the amount of cable required to serve the households decreases. These enhancements required changes in the mathematical relationships within the model and the gathering of additional data to be used as inputs to the enhanced algorithm.[611]

237. Another necessary requirement to identify high cost areas is the ability to determine the distribution of customers within the geographic area being examined. BCM and Hatfield 2.2.2 used a uniform distribution algorithm to locate customers within a CBG, the geographic area used by the models.[612] This model assumes that customers are distributed evenly across the entire CBG area. Improving the accuracy of the models with regard to customer location should generate better estimates of the amount of outside cable required to serve the customers and, therefore, better estimates of the cost of the outside plant.

238. In response to criticisms of BCM, the BCM2 altered the customer distribution algorithm for low-density CBGs. The BCM2 did not alter the uniform distribution assumption, but reduced the area of the CBG in size by eliminating all segments of the CBG that do not fall within 500 feet of the road network.[613] BCPM incorporates the BCM2 customer distribution algorithm without change. Each CBG consists of a number of census blocks (CBs), and using the CB data would allow the model to match the estimated customer

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[607] *See* BCPM Jan 31 Submission at 3.

[608] *See* Hatfield feb 28 Submission at 8. An NPA-NXX is a designation for the area code (NPA) and central office (NXX) numbers.

[609] *See* BCPM Jan. 31 Submission, att. 9 at 131.

[610] Hatfield Feb. 28 Submission at 9.

[611] BCPM Jan. 31 Submission, att. 9, app. B at 6; Hatfield Feb. 28 Submission at 9.

[612] MCI Communications, Inc., NYNEX Corporation, Sprint/United Management Co., and U S West, Inc., Benchmark Costing Model: A Joint Submission, Copyright 1995, CC Docket No. 80-286, filed December 1, 1995. Letter from Richard N. Clarke, AT&T, to William F. Caton, FCC, dated August 27, 1996.

[613] Letter from Warren Hannah, Sprint, to William F. Cation, FCC, dated July 15, 1996, attachment.

location to actual locations with greater accuracy than relying on more aggregated CBG data. The BCPM proponents plan to revise the algorithm to reflect CB data.[614]

239. Hatfield 3.1 replaces the Hatfield 2.2.2 uniform distribution assumption with a clustering algorithm. The algorithm first determines the empty space within each CBG as the area in empty CBs. The algorithm then reduces the size of each area served by subtracting the calculated empty space area from the total area. In low population density CBGs, the algorithm clusters 85 percent of the population within a town rather than assuming that the population is distributed uniformly throughout the remaining CBG area. Finally, in extremely high population density CBGs, the algorithm assumes that the population lives in multi-unit dwellings.[615]

240. While acknowledging remaining problems with the models in their report to the Commission, the state members of the Joint Board recommend that the Commission reject the TECM and select in this Order one of the remaining models to determine the needed level of universal service support in order to focus the efforts of industry participants and regulators.[616] Specifically, three of the state members recommend that the Commission select the BCPM as the platform from which to seek further refinement to the modeling process.[617] The state members of the Joint Board recommend that the non-rural carriers move to the use of a model over a three-year period. According to the state members, such a period will allow for continued evaluation of the model's accuracy and permit any needed improvements to be made before non-rural carriers receive support based solely on the model.[618] The state members of the Joint Board also recommend that the Commission and Joint Board members and staff work with the administrator to monitor the use of the model.[619]

241. As we discussed previously, we agree with the Joint Board's recommendation that we should base universal service support for eligible telecommunications carriers on the forward-looking economic cost of constructing and operating the network used to provide the

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[614] BCPM Jan. 31 Submission at 3.

[615] Hatfield Feb. 28 Submission at 29-31.

[616] State High Cost Report at 1. The state members recommended that the TECM be excluded from consideration.

[617] *See* Majority State Members' Second High Cost Report at 1, 7; *contra* Johnson/Nelson Dissent.

[618] Majority State Members' Second High Cost Report at 4.

[619] Majority State Members' Second High Cost Report at 5.

supported services.[620] We agree with the state members that the TECM should be excluded from further consideration for use as the cost model because the proponents have never provided nationwide estimates of universal service support using that model. We also agree with the state members that there are many issues that still need to be resolved before a cost model can be used to determine support levels.[621] In particular, the majority state members note that the model input values should not be accepted. Instead, they suggest specific input values for the cost of equity, the debt-equity ratio, depreciation lives, the cost of switches, the cost of digital loop carrier equipment and the percentage of structures that should be shared.[622] The majority state members are also concerned with the models' logic for estimating building costs. They see no justification for tying building costs to the number of switched lines as Hatfield 3.1 does and they suggest that using BCPM's technique of estimating building costs as a percent of switch costs is not logical.[623] In light of the wide divergence and frequent changes in data provided to us, we agree with the recommendation of the dissenting state members of the Joint Board that we cannot at this time reasonably apply either of the models currently before us to calculate forward-looking economic costs of providing universal service.[624]

242. The proposed cost models also use widely varying input values to determine the cost of universal service, and in many cases the proponents have not filed the underlying justification for the use of those values. For example, BCPM no longer uses ARMIS expenses as the basis for its expense estimates. Instead, BCPM bases expenses on a survey of eight ILECs.[625] Neither the survey instrument nor the individual carrier responses to the survey have been filed with the Commission. The proponents have not provided supporting

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[620] Recommended Decision, 12 FCC Rcd at 230-32.

[621] *See* Majority State Members' Second High Cost Report at 9.

[622] *See* Majority State Members' Second High Cost Report at app. a, 1-5.

[623] *See* Majority State Members' Second High Cost Report at 12-13.

[624] *See* Johnson/Nelson Dissent at 1. *See also* letter Cheryl L. Parino, Wisconsin PSC, to FCC Commissioners, dated Apr. 28, 1997, at 1 ("I agree with Joint Board Commissioner Julia Johnson that none of the proxies in this proceeding is ready for use."); letter from Roger Hamilton, Joan H. Smith, and Ron Eachus, Oregon PUC, dated Apr. 18, 1997, at 2 ("[T]he FCC should not adopt a model at this time.").

[625] BCPM Jan. 31 Submission, att. 10 at 155-157. For example, BCPM includes a $2.76 per-line cable and wire maintenance expense as compared to BCM2, which set cable and wire plant specific expenses equal to 6.76 percent of model investment. *See* BCPM Jan. 31 submission, att. 10 at 157; Letter from Warren D. Hannah, Sprint, and Glenn H. Brown, U S West, to William F. Caton, dated Aug. 22, 1996, att. 17.

information underlying their determinations of expenses.[626] This lack of support fails to meet the Joint Board's criterion for evaluation that the underlying data and computations should be available to all interested parties.[627] We agree with the state members of the Joint Board that this lack of support makes it impossible to determine whether the estimated expenses are the minimum necessary to provide service.[628] The Hatfield 3.1 model also is based on information that has not been fully made available to the Commission and all interested parties. For example, the Hatfield 3.1 model adjusts the number of supported lines assigned to a CBG on the basis of an undisclosed algorithm. This algorithm has not been filed with the Commission. The application of this algorithm, however, increased the number of households in one state by 34 percent.[629] Moreover, in regard to the fiber/copper cross-over point,[630] the proponents of the Hatfield 3.1 model have submitted no studies to show that the decision concerning the cross-over point between the use of copper and fiber that they chose represents the least-cost configuration, as required by the Joint Board.[631]

243. We also agree with the state members of the Joint Board that efforts to study the models have been severely hampered by the delays in their submission to the Commission and the constant updating of the models to correct technical problems, such as missing data.[632] For example, BCPM was originally submitted on January 8, 1997 with data only for Texas.[633] The proponents then resubmitted the BCPM with data for fifty states on January 31, 1997.[634]

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[626] The expenses calculated by the cost methodologies include plant specific expenses such as the maintenance of facilities and equipment and plant non-specific expenses such as marketing, customer operations, and general corporate overhead.

[627] *See* Recommended Decision, 12 FCC Rcd at 233. *See also* Majority State Members' Second High Cost Report at 5-6.

[628] State High Cost Report at 19. *See also* Majority State Members' Second High Cost Report at 5-6, 13; Johnson/Nelson Dissent at 1-2.

[629] FCC Staff comparison of Hatfield model data for Massachusetts. *See* Letter from Richard N. Clarke, AT&T, to William F. Caton, Fcc, dated Sep. 10, 1996, attachment; Hatfield Feb. 28 Submission.

[630] The fiber/copper cross-over point determines when carriers will use fiber cable instead of copper cable in the feeder plant. The feeder plant is the portion of the outside local subscriber plant that connects the wire center to the service area interface, where the feeder plant connects to the distribution plant.

[631] *See* Recommended Decision, 12 FCC Rcd at 232.

[632] State High Cost Report at 1, 7; Majority State Members' Second High Cost Report at 5.

[633] *See* Letter from Alan Ciamporcero, Pacific Bell, Warren Hannah, Sprint, and Glenn Brown, U S West, to William F. Caton, FCC, dated Jan. 8, 1997.

[634] *See* BCPM Jan. 31 Submission.

The Hatfield Model 3.0 was submitted on February 7, 1997 with data for five states, and resubmitted on February 28, 1997 with data for fifty states.[635] The TECM was originally filed on January 7, 1997, and a revised version submitted on January 31, 1997.[636] The complexity of these models, combined with the conflicting input assumptions, precludes sufficient analysis in the short interlude between the receipt of the models and issuance of this Order by the statutory deadline.

244. Despite significant and sustained efforts by the commenters and the Commission, the versions of the models that we have reviewed to date have not provided dependable cost information to calculate the cost of providing service across the country. The majority state members emphasize that their recommendation to use the BCPM is not an endorsement of all aspects of the model, but rather that they regard the model as the best platform at this time from which the Commission, state commissions, and interested parties can make collective revisions.[637] Indeed, the report finds that neither the Hatfield 3.1 model nor the BCPM meets the criteria set out by the Joint Board pertaining to openness, verifiability, and plausibility.[638] The report also discusses several specific issues that the majority state members of the Joint Board contend must be addressed before the BCPM can be considered for use in determining support levels, including the dispersion of population within a CBG, the plant-specific operating expenses used by the model, and interoffice local transport investment.[639] We agree with the state members that there are significant unresolved problems with each of these cost models, such as the input values for switching costs, digital loop carrier equipment, depreciation rates, cost of capital, and structure sharing.[640] We also agree with them that line count estimates should be more accurate and reflect actual ILEC counts.[641]

245. Based on these problems with the models, we conclude that we cannot use any of the models at this time as a means to calculate the forward-looking economic cost of the

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[635] *See* Hatfield Feb. 28 Submission.

[636] *See* Comments of the New Jersey Division of the Ratepayer Advocate Concerning Improvements to the Telecom Economic Cost Model (filed Jan. 31, 1997) (New Jersey Advocate Jan. 31 *ex parte*).

[637] Majority State Members' Second High Cost Report at 7.

[638] Majority State Members' Second High Cost Report at 2, 5-6.

[639] Majority State Members' Second High Cost Report at 3, 9-13.

[640] State High Cost Report at 1; Majority State Members' Second State High Cost Report at 9-13; Johnson/Nelson Dissent at 1.

[641] *See* Majority State Members' Second High Cost Report at 11; Johnson/Nelson Dissent at 2.

network on which to base support for universal service in high cost areas. Consequently, we believe that it would be better to continue to review both the BCPM and Hatfield models.[642] Further review will allow the Commission and interested parties to compare and contrast more fully the structure and the input values used in these models. As two state members note, the process has benefitted by the healthy competition among the model proponents.[643] We find that continuing to examine the various models will not delay our implementation of a forward-looking economic cost methodology for determining support for rural, insular, and high cost areas.[644] As discussed above, we will issue a FNPRM on a forward-looking cost methodology for non-rural carriers by the end of June 1997. We anticipate that by the end of the year we will choose a specific model that we will use as the platform for developing that methodology. We anticipate that we will seek further comment on that selection and the refinements necessary to adopt a cost methodology by August 1998 that will be used for non-rural carriers starting on January 1, 1999. Consequently, as we explain below, we will continue using mechanisms currently in place to determine universal service support until January 1, 1999, while we resolve the issues related to the forward-looking economic cost models.

246. We also agree with the dissenting state members of the Joint Board that our actions are consistent with the requirements of section 254 because we have identified the services to be supported by federal universal service support mechanisms,[645] and we are setting forth a specific timetable for implementation of our forward-looking cost methodology.[646] Moreover, our actions here are consistent with section 254's requirement that support should be explicit.[647] Making "implicit" universal service subsidies "explicit" "to the extent possible"[648] means that we have authority at our discretion to craft a phased-in plan that relies in part on prescription and in part on competition to eliminate subsidies in the prices for various products sold in the market for telecommunications services. Consequently, we reject the arguments that section 254 compels us immediately to remove all costs associated with

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[642] *See* Johnson/Nelson Dissent at 2.

[643] Johnson/Nelson Dissent at 2.

[644] *See* Johnson/Nelson Dissent at 2 ("It is more important to establish a timetable to allow the development of mechanisms which will accurately compensate companies for the provision of universal service and ensure continued affordability of basic rates for consumers.")

[645] *See supra* section IV.B.

[646] Johnson/Nelson Dissent at 2 ("We would suggest, instead, that Section 254(a)(2) of the Telecommunications Act of 1996 clearly states that the FCC must only establish rules by May 8, 1997 which " . . . include a definition of the services that are supported by the Federal universal service support mechanisms and a specific timetable for implementation'.")

[647] 47 U.S.C. § 254(e).

[648] *See* Joint Explanatory Statement at 131.

the provision of universal service from interstate access charges.[649] Under the timetable we have set forth here, we will over the next year identify implicit interstate universal support and make that support explicit, as further provided by section 254(e).[650]

247. We believe that the states can provide valuable assistance in our efforts to determine the cost of providing service in their areas because the states have been reviewing cost studies for several years and most recently have been reviewing forward-looking economic cost studies in the context of local interconnection, unbundling, and resale arbitrations and in the review of statements of generally available terms and conditions.[651] One alternative proposed by some commenters is to use, as the basis for calculating the forward-looking economic cost of universal service, the cost studies relied upon by the states to determine the price of interconnection and unbundled network elements.[652] We reject the use of current, generally interim, state-adopted unbundled elements prices for determining the cost of providing supported services for two reasons. First, many of these prices are only interim in nature, and thus do not provide adequate predictability. Second, to the extent that unbundled network elements offered on the market provide services in addition to the supported services, the cost of those elements may exceed the cost of providing supported services. We affirm our belief, however, that the underlying state-conducted cost studies can be an appropriate basis upon which to determine the cost of providing universal service. We also affirm that state-conducted cost studies have the advantage of permitting states to

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[649] *See Access Charge Reform Order* at section I.

[650] Costs associated with the provision of universal service are presently intermingled with all other costs, including the forward-looking economic cost of interstate access and any historic costs associated with the provision of interstate access services. We cannot remove universal service costs from interstate access charges until we can identify those costs, which we will not be able to do, even for non-rural ILECs, before January 1, 1999.

[651] *See, e.g. Petition of AT&T Communications of the Midwest, Inc. for Arbitration pursuant to § 252(b) of the Telecommunications Act of 1996*, Docket No. Arb-96-3 (Iowa Utilities Board December 11, 1996); *Petition of AT&T Communications of the Pacific Northwest, Inc. for Arbitration of Interconnection Rates, Terms, and Conditions with GTE Northwest Incorporated Pursuant to 47 U.S.C.§ 252(b)*, Order No. 97-021 (Oregon Public Utility Commission January 13, 1997); *Petition of AT&T Communications of the Mountain States, Inc. for Arbitration of Interconnection Contract Negotiations with U S West Communications, Inc.*, Docket No. 96A-345T (Colorado Public Utilities Commission November 27, 1996); *Petition of AT&T Communications of the Southern States, Inc. for Arbitration of Interconnection Rates, Terms and Conditions with BellSouth Telecommunications, Inc. Under the Telecommunications Act of 1996*, Docket No. 6801-U (Georgia Public Service Commission December 4, 1996); *Petition of NYNEX for Arbitration of Interconnection Agreements with Teleport Communications Group, Inc., Brooks Fiber Communications, AT&T Communications of New England, Inc., MCI Communications Company, and Sprint Communications Company, L.P. Pursuant to Section 252(b) of the Telecommunications Act of 1996*, Nos. 96-73174, 96-75, 96-80/81, 96-83, 96-94 (Massachusetts Department of Public Utilities December 4, 1996).

[652] *See* BANX reply comments at 14-15.

coordinate the basis for pricing unbundled network elements and determining universal service support. This coordination can improve regulatory consistency and avoid such marketplace distortions as unbundled network element cost calculations unequal to universal service cost calculations for the elements that provide supported services. Such marketplace distortions may generate unintended and inefficient arbitrage opportunities. Thus, it is reasonable for the Commission to rely on this work by a state in determining federal universal service support for rural, insular, and high cost areas.

248. Therefore, as the basis for calculating federal universal service support in their states, we will use forward-looking economic cost studies conducted by state commissions that choose to submit such cost studies to determine universal service support. As discussed further below, we today adopt criteria appropriate for determining federal universal service support to guide the states as they conduct those studies. We ask states to elect, by August 15, 1997, whether they will conduct their own forward-looking economic cost studies. States that elect to conduct such studies should file them with the Commission on or before February 6, 1998. We will then seek comment on those studies and determine whether they meet the criteria we set forth. The Commission will review the studies and comments received, and only if we find that the state has conducted a study that meets our criteria will we approve those studies for use in calculating federal support for non-rural eligible telecommunications carriers rural, insular, and high cost areas to be distributed beginning January 1, 1999. We intend to work closely with the states as they conduct these forward-looking economic cost studies. We will also work together with the states and the Joint Board to develop a uniform cost study review plan that would standardize the format for presentation of cost studies in order to facilitate review by interested parties and by the Commission.

249. If a state elects not to conduct its own forward-looking economic cost study or that the state-conducted study fails to meet the criteria we adopt today, the Commission will determine the forward-looking economic cost of providing universal service in that state according to the Commission's forward-looking cost methodology. We will seek the Joint Board's assistance in developing our method of calculating forward-looking economic cost, which we intend to develop by building on the work already done by the Joint Board, its staff, and industry proponents of various cost models. We will issue a FNPRM by the end of June 1997 seeking additional information on which to base the development of a reliable means of determining the forward-looking economic cost of providing universal service. We shall also separately seek information on issues such as the actual cost of purchasing switches, the current cost of digital loop carriers, and the location of customers in the lowest density areas.

250. Criteria for Forward-Looking Economic Cost Determinations. Whether forward-looking economic cost is determined according to a state-conducted cost study or a Commission-determined methodology, we must prescribe certain criteria to ensure consistency

in calculations of federal universal service support. Consistent with the eight criteria set out in the Joint Board recommendation,[653] we agree that all methodologies used to calculate the forward-looking economic cost of providing universal service in rural, insular, and high cost areas must meet the following criteria:

(1) The technology assumed in the cost study or model must be the least-cost, most-efficient, and reasonable technology for providing the supported services that is currently being deployed A model, however, must include the ILECs' wire centers as the center of the loop network and the outside plant should terminate at ILECs' current wire centers. The loop design incorporated into a forward-looking economic cost study or model should not impede the provision of advanced services. For example, loading coils should not be used because they impede the provision of advanced services.[654] We note that the use of loading coils is inconsistent with the Rural Utilities Services guidelines for network deployment by its borrowers.[655] Wire center line counts should equal actual ILEC wire center line counts, and the study's or model's average loop length should reflect the incumbent carrier's actual average loop length.

(2) Any network function or element, such as loop, switching, transport, or signaling, necessary to produce supported services must have an associated cost.

(3) Only long-run forward-looking economic cost may be included. The long-run period used must be a period long enough that all costs may be treated as variable and avoidable. The costs must not be the embedded cost of the facilities, functions, or elements. The study or model, however, must be based upon an examination of the current cost of purchasing facilities and equipment, such as switches and digital loop carriers (rather than list prices).

(4) The rate of return must be either the authorized federal rate of return on interstate services, currently 11.25 percent, or the state's prescribed rate of return for intrastate services. We conclude that the current federal rate of return is a reasonable rate of return by which to determine forward looking

[653] The state members of the Joint Board also evaluated the models based on whether they meet the criteria set out in the Joint Board recommendation. *See* Majority State Members' Second State High Cost Report at 2-6.

[654] *See* Majority State Members' Second High Cost Report at 7.

[655] RUS model reply comments at 4.

costs.[656] We realize that, with the passage of the 1996 Act, the level of local service competition may increase, and that this competition might increase the ILECs' cost of capital.[657] There are other factors, however, that may mitigate or offset any potential increase in the cost of capital associated with additional competition. For example, until facilities-based competition occurs, the impact of competition on the ILEC's risks associated with the supported services will be minimal because the ILEC's facilities will still be used by competitors using either resale or purchasing access to the ILEC's unbundled network elements.[658] In addition, the cost of debt has decreased since we last set the authorized rate of return.[659] The reduction in the cost of borrowing caused the Common Carrier Bureau to institute a preliminary inquiry as to whether the currently authorized federal rate of return is too high, given the current marketplace cost of equity and debt.[660] We will re-evaluate the cost of capital as needed to ensure that it accurately reflects the market situation for carriers.

(5) Economic lives and future net salvage percentages used in calculating depreciation expense must be within the FCC-authorized range. We agree with those commenters that argue that currently authorized lives should be used because the assets used to provide universal service in rural, insular, and high cost areas are unlikely to face serious competitive threat in the near term.[661] To the extent that competition in the local exchange market changes the economic lives of the plant required to provide universal service, we will re-evaluate our authorized depreciation schedules.[662] We intend shortly to issue a notice of proposed rule making to further examine the Commission's depreciation rules.

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[656] *See* Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, *Order*, 5 FCC Rcd 7507 (1990), *recon.*, 6 FCC Rcd 7193 (1991).

[657] *See Workshop Jan. 15 Transcript,* panel three.

[658] NCTA model reply comments at 17.

[659] *See* Common Carrier Bureau Sets Pleading Schedule in Preliminary Rate of Return Inquiry, *Public Notice*, 11 FCC Rcd 3651 (Com. Car. Bur. 1996).

[660] *See* Common Carrier Bureau Sets Pleading Schedule in Preliminary Rate of Return Inquiry, *Public Notice*, 11 FCC Rcd 3651 (Com. Car. Bur. 1996).

[661] Gabel model comments at 53; NCTA model reply comments at 18-19.

[662] The Commission prescribes depreciation rates for 33 ILECs. Depreciation rates for each of these ILEC are represcribed every three years. The economic lives reflected in those schedules have been shortened considerably from those that were used ten to fifteen years ago.

(6) The cost study or model must estimate the cost of providing service for all businesses and households within a geographic region. This includes the provision of multi-line business services, special access, private lines, and multiple residential lines. Such inclusion of multi-line business services and multiple residential lines will permit the cost study or model to reflect the economies of scale associated with the provision of these services.

(7) A reasonable allocation of joint and common costs must be assigned to the cost of supported services. This allocation will ensure that the forward-looking economic cost does not include an unreasonable share of the joint and common costs for non-supported services.

(8) The cost study or model and all underlying data, formulae, computations, and software associated with the model must be available to all interested parties for review and comment. All underlying data should be verifiable, engineering assumptions reasonable, and outputs plausible.[663]

(9) The cost study or model must include the capability to examine and modify the critical assumptions and engineering principles. These assumptions and principles include, but are not limited to, the cost of capital, depreciation rates, fill factors, input costs, overhead adjustments, retail costs, structure sharing percentages, fiber-copper cross-over points, and terrain factors.

(10) The cost study or model must deaverage support calculations to the wire center serving area level at least, and, if feasible, to even smaller areas such as a Census Block Group, Census Block, or grid cell. We agree with the Joint Board's recommendation that support areas should be smaller than the carrier's service area in order to target efficiently universal service support.[664] Although we agree with the majority of the commenters that smaller support areas better target support,[665] we are concerned that it becomes progressively more difficult to determine accurately where customers are located as the support areas grow smaller. As SBC notes, carriers currently keep records of the number of lines served at each wire center, but do not know which lines are associated with a

[663] *See, e.g.,* GTE comments at 28; RTC comments at 4; TDS Telecom comments at 21.

[664] *See* Recommended Decision, 12 FCC Rcd at 181.

[665] *See, e.g,* GTE comments at 57; Washington UTC comments at 3; USTA model comments at 20.

particular CBG, CB, or grid cell.[666] Carriers, however, would be required to provide verification of customer location when they request support funds from the administrator.

251. In order for the Commission to accept a state cost study submitted to us for the purposes of calculating federal universal service support, that study must be the same cost study that is used by the state to determine intrastate universal service support levels pursuant to 254(e).[667] A state need not perform a new cost study, but may submit a cost study that has already been performed for evaluation by the Commission.[668] We also encourage a state, to the extent possible and consistent with the above criteria, to use its ongoing proceedings to develop permanent unbundled network element prices as a basis for its universal service cost study. This would reduce duplication and diminish arbitrage opportunities that might arise from inconsistencies between the methodologies for setting unbundled network element prices and for determining universal service support levels. In particular, we wish to avoid situations in which, because of different methodologies used for pricing unbundled network elements and determining universal service support, a carrier could receive support for the provision of universal service that differs from the rate it pays to acquire access to the unbundled network elements needed to provide universal service.[669] Consequently, to prevent differences between the pricing of unbundled network elements and the determination of universal service support, we urge states to coordinate the development of cost studies for the

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[666] SBC comments at 22. The Bureau of the Census defines "census blocks" as "small areas bounded on all sides by visible features such as streets, roads, streams, and railroad tracks, and by invisible boundaries such as city, town, township, and county limits, property lines, and short, imaginary extensions of streets and roads." Bureau of the Census, United States Department of Commerce, 1990 Census of population and Housing, A-3. It further defines a "census block group" as "generally contain[ing] between 250 and 550 housing units, with the ideal size being 400 housing units." *Id*. at A-4. A "grid cell" is an approximately four-tenths of a square mile (3,000 ft by 3,000 ft). *See* Recommended Decision, 12 FCC Rcd at 222.

[667] 47 U.S.C. § 254(e).

[668] Such a state cost study would still need to meet the criteria set out herein.

[669] Methodological differences such as different geographic divisions or different input assumptions could result in a divergence between the cost calculation for that (albeit limited) set of unbundled elements required to provide supported services to a particular customer and the universal service cost calculation for providing supported services to that same customer. The following arbitrage opportunity could result. Suppose universal service cost calculations indicate that the cost of providing supported services to a particular customer is $50. If the benchmark were $20, then the support per line for serving customers in that geographic area would be $30. Suppose also that the cost of unbundled network elements for the supported service is calculated with a different methodology, which results in a $20 cost of serving the same customer. This outcome places entrants using unbundled network elements to provide the supported services at a competitive advantage -- if they serve such customers with unbundled network elements purchased for $20, but receive universal service support of $30, entrants benefit from the $10 differential that results from the different methodologies.

pricing of unbundled network elements and the determination of universal service support.[670]

4. Determination of Forward-Looking Economic Cost For Rural Carriers

252. Development and Selection of a Suitable Forward-Looking Support Mechanism for Rural Carriers. Consistent with our plan for non-rural carriers, we shall commence a proceeding by October 1998 to establish forward-looking economic cost mechanisms for rural carriers. Although a precise means of determining forward-looking economic cost for non-rural carriers will be prescribed by August 1998 and will take effect on January 1, 1999, rural carriers will begin receiving support pursuant to support mechanisms incorporating forward-looking economic cost principles only when we have sufficient validation that forward-looking support mechanisms for rural carriers produce results that are sufficient and predictable. Consistent with the Joint Board's recommendation that mechanisms for determining support for rural carriers incorporate forward-looking cost principles, rather than embedded cost, we will work closely with the Joint Board, state commissions, and interested parties to develop support mechanisms that satisfy these principles.

253. To ensure that the concerns of rural carriers are thoroughly addressed, Pacific Telecom suggests that a task force be established specifically to study the development and impact of support mechanisms incorporating forward-looking economic cost principles for rural carriers. State Joint Board members and USTA have also recommended the formation of a rural task force to study and develop a forward-looking economic cost methodology for rural carriers.[671] The state Joint Board members contend that such a task force "should provide valuable assistance in identifying the issues unique to rural carriers and analyzing the appropriateness of proxy cost models for rural carriers."[672] We support this suggestion. Such a task force should report its findings to the Joint Board. We encourage the Joint Board to establish the task force soon, so that its findings can be included in any Joint Board report to the Commission prior to our issuance of the FNPRM on a forward-looking economic cost methodology for rural carriers by October 1998. Although the Joint Board has the responsibility to appoint the members of the task force, we suggest that it include a broad representation of industry, including rural carriers, as well as a representative from remote and insular areas. We also suggest that the meetings and records of the task force be open to the

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[670] *See* Letter from Julia L. Johnson, Florida Public Service Commission, to Reed Hundt, FCC, dated Apr. 22, 1997, at 3 (warning of the difficulties inherent in using state cost studies designed for pricing unbundled network elements for universal services purposes, but noting that there may be merit in performing comparisons between proxy model results and those of unbundled network element cost studies.")

[671] State High Cost Report at 4; USTA model comments at 7-8.

[672] State High Cost Report at 4.

public.

254. The Commission, with the Joint Board's assistance, will develop appropriate cost inputs and review a model's performance to target support narrowly to those specific geographic areas that have high costs for the provision of universal service. This will help to ensure that rural carriers receive support at a level that will enable them to provide supported services at affordable rates. The support level provided to rural carriers should also be sufficient to encourage the deployment of the most efficient technology available and the availability of advanced services in rural areas.

255. Specifically, through the FNPRM, we will seek to determine what mechanisms incorporating forward-looking economic cost principles would be appropriate for rural carriers. We require that mechanisms developed and selected for rural carriers reflect the higher operating and equipment costs attributable to lower subscriber density, small exchanges, and lack of economies of scale that characterize rural areas, particularly in insular and very remote areas, such as Alaska. We also require that cost inputs be selected so that the mechanisms account for the special characteristics of rural areas in its cost calculation outputs. We recognize the unique situation faced by carriers serving Alaska and insular areas may make selection of cost inputs for those carriers especially challenging. Thus, if the selected mechanisms include a cost model, the model should use flexible inputs to accommodate the variation in cost characteristics among rural study areas due to each study area's unique population distribution. Moreover, the Commission, working with the Joint Board, state commissions, and other interested parties, will determine whether calculating the support using geographic units other than CBGs would more accurately reflect a rural carrier's costs. The Commission will likewise consider whether such mechanisms should include a "maximum shift or change" feature to ensure that the amount of support each carrier receives will not fluctuate more than an established amount from one year to the next, similar to the provision in section 36.154(f)(1) of the Commission's rules to mitigate separations and high cost fund changes.[673]

256. The Commission with the Joint Board's assistance will also consider whether a competitive bidding process could be used to set support levels for rural carriers. The record does not support adoption of competitive bidding as a support mechanism at this time.[674] The FNPRM will examine the development of such a competitive bidding process that will meet the requirements of both sections 214(e) and 254.

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[673] Once a carrier's transition to a 25 percent allocation factor has been achieved, however, the five percent limitation in the change no longer applies. *See* Florida Public Service Commission Request for Interpretation of the Applicability of the Limit on Change in Interstate Allocation, Section 36.154(f) of the Commission's Rules, *Order*, FCC 97-83 (rel. Mar. 17, 1997); 47 C.F.R. § 36.154(f)(1).

[674] *See infra* section VII.E.

5. Applicable Benchmarks

257. The Joint Board recommended that the Commission adopt a benchmark based on nationwide average revenue per line to calculate the support eligible telecommunications carriers would receive for serving rural, insular, and high cost areas.[675] The Joint Board recommended that the support that an eligible telecommunications carrier receives for serving a supported line in a particular geographic area should be the cost of providing service calculated using forward-looking economic cost minus a benchmark amount.[676] The benchmark is the amount subtracted from the cost of providing service that is the basis for determining the support provided from the federal universal service support mechanisms.

258. The Joint Board recommended setting the benchmark at the nationwide average revenue per line, because "that average reflects a reasonable expectation of the revenues that a telecommunications carrier would be reasonably expected to use to offset its costs, as estimated in the proxy model."[677] Because it recommended that eligible residential and single-line business be supported, with single-line businesses receiving less support, the Joint Board recommended defining two benchmarks, one for residential service and a second for single-line business service. Because they found that a revenue-based benchmark will require periodic review and more administrative oversight than a cost-based benchmark, however, the majority state members of the Joint Board recommended, in their second report to the Commission, the use of a benchmark based on the nat^Aonwide average cost of service as determined by the cost model.[678]

259. We agree with the Joint Board's recommendation,[679] and intend to establish a nationwide benchmark based on average revenues per line for local, discretionary,[680] interstate and intrastate access services, and other telecommunications revenues that will be used with either a cost model or a cost study to determine the level of support carriers will receive for

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[675] Recommended Decision, 12 FCC Rcd at 246.

[676] Recommended Decision, 12 FCC Rcd at 185.

[677] Recommended Decision, 12 FCC Rcd at 247.

[678] Majority State Members' Second High Cost Report at 14.

[679] Recommended Decision, 12 FCC Rcd at 246.

[680] The Joint Board stated that "[d]iscretionary services include services that are added on to basic local service, e.g., call waiting, call forwarding or caller ID." Recommended Decision, 12 FCC Rcd at 246, n. 1002.

lines in a particular geographic area.[681] A non-rural eligible telecommunications carrier could draw from the federal universal service support mechanism for providing supported services to a subscriber only if the cost of serving the subscriber, as calculated by the forward-looking cost methodology, exceeds the benchmark. We note that a majority of the commenters support the use of a benchmark based on revenues per line.[682] We also agree with the Joint Board that there should be separate benchmarks for residential service and single-line business service.[683]

260. Consistent with the Joint Board's recommendation, we shall include revenues from discretionary services in the benchmark.[684] We agree with Time Warner that a determination of the amount of support a carrier needs to serve a high cost area should reflect consideration of the revenues that the carrier receives from providing other local services, such as discretionary services.[685] As the Joint Board noted, those revenues offset the costs of providing local service.[686] Setting the benchmark at a level below the average revenue per line, including discretionary services, would allow a carrier to recover the costs of discretionary services from customers purchasing these discretionary services and from the universal service mechanisms. This unnecessary payment would increase the size of the universal service support mechanisms, and consequently require larger contributions from all telecommunications carriers. Although we agree with MFS that competition could reduce revenues from a particular service,[687] we anticipate that the development of competition in the local market will also lead to the development of new services that will produce additional revenues per line and to reductions in the costs of providing the services generating those revenues.[688] As suggested by the Joint Board, we will also review the benchmark at the same time we review the means for calculating forward-looking economic cost.[689] Thus, at these periodic reviews, we can adjust both the forward-looking cost methodology and the

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[681] We note that a benchmark is not required if support is developed through a competitive bidding process because the eligible carriers' bids will be based on their required support levels and not costs.

[682] *See, e.g.,* Ad Hoc comments at 11; Cincinnati Bell comments at 9; ALTS reply comments at 3.

[683] Recommended Decision, 12 FCC Rcd at 247.

[684] Recommended Decision, 12 FCC Rcd at 246.

[685] Time Warner comments at 16.

[686] Recommended Decision, 12 FCC Rcd at 247.

[687] MFS comments at 24.

[688] For example, many ILECs are currently marketing voice recognition services.

[689] *See* MFS comments at 24; ALTS reply comments at 3.

benchmark to reflect the positive effects of competition.

261. We include revenues from discretionary services in the benchmark for additional reasons. The costs of those services are included in the cost of service estimates calculated by the forward-looking economic cost models that we will be evaluating further in the FNPRM.[690] Revenues from services in addition to the supported services should, and do, contribute to the joint and common costs they share with the supported services. Moreover, the former services also use the same facilities as the supported services, and it is often impractical, if not impossible, to allocate the costs of facilities between the supported services and other services. For example, the same switch is used to provide both supported services and discretionary services. Consequently, in modeling the network, the BCPM and the Hatfield 3.1 models use digital switches capable of providing both supported services and discretionary services. Therefore, it would be difficult for the models to extract the costs of the switch allocated to the provision of discretionary services.

262. We also include both interstate and intrastate access revenues in the benchmark, as recommended by the Joint Board.[691] Access to IXCs and to other local wire centers is provided by a part of the switch known as the port. The methodologies filed in this proceeding include the costs of the port as costs of providing universal service. The BCPM, however, subtracts a portion of port costs allocated to toll calls. Hatfield 3.1, in contrast, includes all port costs in the costs of providing supported services. Both methodologies exclude per-minute costs of switching that are allocated to toll calls. Therefore, the methodologies filed in this proceeding do not include all access costs in the costs of providing universal service. Access charges to IXCs, however, have historically been set above costs as one implicit mechanism supporting local service. We therefore conclude that, unless and until both interstate and intrastate access charges have been reduced to recover only per-minute switch and transport costs, access revenues should be included in the benchmark. Accordingly, we reject the proposals by some commenters to exclude revenues from discretionary and access services in calculating the benchmark.[692]

263. We also agree with the Joint Board that setting the benchmark at nationwide average revenue per line is reasonable because that average reflects a reasonable expectation of the revenues that a telecommunications carrier could use to cover its costs, as estimated by the forward-looking cost methodology we are adopting.[693] A nationwide benchmark will also

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[690] Recommended Decision,12 FCC Rcd at 246-47.

[691] Recommended Decision, 12 FCC Rcd at 246.

[692] *See, e.g.,* ALLTEL comments at 9; Cincinnati Bell comments at 9; GTE reply comments at 31-32.

[693] Recommended Decision, 12 FCC Rcd at 247.

be easy to administer and will make the support levels more uniform and predictable than a benchmark set at a regional, state, or sub-state level would make them. A nationwide benchmark, as the Joint Board noted, will also encourage carriers to market and introduce new services in high costs areas as well as urban areas, because the benchmark will vary depending upon the average revenues from carriers serving all areas. For that reason, contrary to the contentions of some commenters,[694] we conclude that a nationwide benchmark will not harm carriers serving rural areas but rather encourage them to introduce new services. We note that support levels for rural carriers will be unaffected by the benchmark unless and until they begin to transition to a forward-looking cost methodology, which would occur no earlier than 2001. Further, we note that the states have discretion to provide universal service support beyond that included in the federal universal service support mechanism.[695]

264. We agree the Joint Board's recommendation to adopt two separate benchmarks, one for residential service and a second for single-line business services.[696] Because business service rates are higher than residential service rates, we consider those additional revenue derived from business services when developing the benchmark.[697] We note that the only parties who have opposed adopting separate benchmarks contend that, because ILECs do not keep separate records for residential and business revenues, separate benchmarks would be administratively difficult.[698] We do not believe , however, that using two revenue benchmarks will be administratively difficult. For purposes of universal service support, the eligible telecommunications carrier need not determine the exact revenues per service, but only the number of eligible residential and business connections it serves in a particular support area. To calculate support levels, the administrator will take the cost of service, as derived by the forward-looking cost methodology, and subtract the applicable benchmark and multiply that number by the number of eligible residential or business lines served by the carrier in that support area.

265. We are not persuaded to adopt any of the other methods of determining a nationwide benchmark proposed by the commenters. We decline to adopt a benchmark based on household income, because we agree with the Joint Board that issues related to subscriber levels should be addressed through programs directed at helping low-income households

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[694] *See* Roseville Tel. Co. comments at 13-14; TDS Telecom comments at 35.

[695] *See* 47 U.S.C. § 254(f).

[696] Recommended Decision, 12 FCC Rcd at 247.

[697] *See* 1996 Monitoring Report, CC Docket No. 87-339, May 1996, prepared by the Federal and State Staff for the Federal-State Joint Board in CC Docket No. 80-286, Tables 5.7 and 5.8, at 468-469.

[698] *See* Roseville Tel. Co. comments at 6; TDS Telecom comments at 35-36.

obtain and retain telephone service.[699] We likewise reject a benchmark based on local service rates, because such a benchmark would ignore the revenues that carriers receive from other services that contribute to the joint and common costs of providing those and the supported services.[700]

266. The majority state members depart from the Joint Board recommendation and now suggest the use of a cost-based benchmark. They contend that it may be difficult to match the revenue used in a benchmark with the cost of service included in the model. They also argue that a revenue benchmark would require periodic review and more regulatory oversight than a cost-based benchmark.[701] Although we recognize there may be some difficulties in using a revenue-based benchmark, we agree with the Joint Board that a cost-based benchmark should not be relied upon at this time.[702] As the Joint Board noted, it is best to compare the revenue to the cost to determine the needed support rather than to examine only the cost side of the equation.[703] A cost-based benchmark, as Time Warner states, does not reflect the revenue already available to a carrier for covering its costs for the supported services.[704] Even in some areas with above average costs, revenue can offset high cost without resort to subsidies, resulting in maintenance of affordable rates.[705] We also agree with the majority state members of the Joint Board that a cost-based benchmark will not completely satisfy the objective of ensuring that only a reasonable allocation of joint and common costs are assigned to the cost of the supported services.[706] Although the majority state members of the Joint Board now express concern about the difficulty in matching the service revenue and the cost of services included in a model,[707] we remain confident that we can do that. We also do not find that it will be administratively difficult to establish and

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[699] Recommended Decision, 12 FCC Rcd at 247-48.

[700] *See* Time Warner comments at 15-16.

[701] Majority State Members' Second High Cost Report at 14.

[702] Recommended Decision, 12 FCC Rcd at 249.

[703] Recommended Decision, 12 FCC Rcd at 249.

[704] Time Warner comments at 16.

[705] *See* Ohio PUC comments at 48 (while rural ILECs often have small calling areas, with low basic service rates, they receive substantial revenues from toll service).

[706] Majority State Members' Second High Cost Report at 15.

[707] Majority State Members' Second High Cost Report at 14.

maintain a revenue-based benchmark,[708] and intend to review the benchmark when we review the forward-looking economic cost methodology. Consequently, we will not adopt a cost-based benchmark at this time, but will, as the majority state members of the Joint Board suggest,[709] address in the FNPRM the specific benchmark that should be used.

267. As stated above, we have determined that the revenue benchmark should be calculated using local service, access, and other telecommunications revenues received by ILECs, including discretionary revenue. Based on the data we have received in response to the data request from the Federal-State Joint Board in CC Docket 80-286 (80-286 Joint Board) on universal service issues, it appears that the benchmark for residential services should be approximately $31 and for single-line businesses should be approximately $51.[710] We recognize, as did the Joint Board, that the precise calculation of the level of the benchmark must be consistent with the means of calculating the forward-looking economic costs of constructing and operating the network. Thus, we do not adopt a precise calculation of the benchmark at this time, but will do so after we have had an opportunity to review state cost studies and the study or model that will serve as the methodology for determining forward looking economic costs in those states that do not conduct cost studies. We will also seek further information, particularly to clarify the appropriate amounts of access charge revenue and intraLATA toll revenue that should be included in the revenue benchmark.

6. Share of Support Provided by Federal Universal Service Support Mechanisms

268. As we discuss in detail later, we have determined to assess contributions for the universal service support mechanisms for rural, insular, and high cost areas solely from interstate revenues.[711] We have adopted this approach because the Joint Board did not recommend that we should assess intrastate as well as interstate revenues for the high cost support mechanisms and because we have every reason to believe that the states will participate in the federal-state universal service partnership so that the high cost mechanisms will be sufficient to guarantee that rates are just, reasonable, and affordable. Therefore, we do not, in this Order, attempt to identify existing state-determined intrastate implicit universal

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[708] *Contra* Majority State Members' Second High Cost Report at 14.

[709] Majority State Members' Second High Cost Report at 15.

[710] *See* Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, *Order*, 9 FCC Rcd 7962 (Com.Car.Bur. 1994). Summing all ILEC responses to data requests showed that the average residential total monthly bill for local and toll service was $50.69 per month in 1994 and that the average local residential local bill was $25.93 per month in 1994. Subtracting taxes and surcharges from and adding access revenues to average residential bills results in ILEC revenues per line of $30.71 in 1994.

[711] *See infra* section X.E.

service support presently effected through intrastate rates or other intrastate rules, and because we do not attempt to convert such implicit intrastate support into explicit federal universal service support. Instead, the support for rural, insular, and high cost areas served by non-rural carriers distributed through forward-looking economic cost based mechanisms need only support interstate costs. Of course, we will monitor the high cost mechanisms to determine whether additional federal support becomes necessary.[712]

269. Accordingly, we must determine the federal and state shares of the costs of providing high cost service. We have concluded that the federal share of the difference between a carrier's forward looking economic cost of providing supported services and the national benchmark will be 25 percent. Twenty-five percent is the current interstate allocation factor applied to loop costs in the Part 36 separations process, and because loop costs will be the predominant cost that varies between high cost and non-high cost areas, this factor best approximates the interstate portion of universal service costs.

270. Prior to the adoption of the 25 percent interstate allocation factor for loop costs, the Commission allocated most non-traffic sensitive (NTS) plant costs on the basis of a usage-based measure, called the Subscriber Plant Factor (SPF).[713] In 1984, the Commission and the 80-286 Joint Board recognized that there was no purely economic method of allocating NTS costs on a usage-sensitive basis.[714] Therefore, the Commission adopted a fixed interstate allocation factor to separate loop costs between the interstate and intrastate jurisdictions. In establishing a 25 percent interstate allocation factor for loop costs, the Commission was guided by the following four principles adopted by the 80-286 Joint Board: "(1) Ensure the permanent protection of universal service; (2) provide certainty to all parties; (3) be administratively workable; and (4) be fair and equitable to all parties."[715] Because we find that the four principles adopted by the 80-286 Joint Board are consistent with the principles set out in section 254(b) and because universal service support is largely attributable to high NTS loop costs,[716] we find that applying the 25 percent interstate

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[712] We note that parties have sought to have all of separations determined on a fixed factor basis. If we adopt such a change in our upcoming separations proceeding, we would conform the federal percentage of high cost support as well.

[713] *See Amendment of Part 67*, 96 FCC 2d at 786.

[714] *See Amendment of Part 67*, 96 FCC 2d at 789.

[715] Jurisdictional Separations Procedures, *Second Recommended Decision and Order*, CC Docket 80-286, 48 Fed. Reg. 46556 (Oct. 13, 1983).

[716] The level of high cost support is also a function of switching and local inter-office transport costs. These additional costs, however, do not vary significantly in different support areas and would have a relatively low impact on the total universal service support mechanisms.

allocation factor historically applied to loop costs in the Part 36 separations process is appropriate here.

271. As noted above, we believe that the states will fulfill their role in providing for the high cost support mechanisms. Indeed, we note that there is evidence that such state support is substantial, as states have used a variety of techniques to maintain low residential basic service rates, including geographic rate averaging, higher rates for business customers, higher intrastate access rates, higher rates for intrastate toll service, and higher rates for discretionary services.[717] The Commission does not have any authority over the local rate setting process or the implicit intrastate universal service support reflected in intrastate rates. We believe that it would be premature for the Commission to substitute explicit federal universal service support for implicit intrastate universal service support before states have completed their own universal service reforms through which they will identify the support implicit in existing intrastate rates and make that support explicit.[718] Although we are not, at the outset, providing federal support for intrastate, as well as interstate, costs associated with providing universal services, we will monitor the high cost mechanisms to ensure that they are sufficient to ensure just, reasonable, and affordable rates. We expect that the Joint Board and the states will do the same and we hope to work with the states in further developing a unified approach to the high cost mechanisms.

272. We also believe that, as competition develops, the marketplace itself will help to identify intrastate implicit universal service support, and that marketplace forces will compel states to generate that support through explicit, sustainable mechanisms consistent with section 254(e). Competition will not arrive in all places at the same time, so the approach we adopt today will allow the Commission to work with the states, both collectively and individually, to ensure that states are able to accomplish their own transition from implicit support to explicit universal service support. Again, the Commission, working with the Joint Board, will continue to monitor universal service support needs as states implement explicit intrastate universal service support mechanisms, and will assess with the assistance of the state commissions whether additional federal universal service support is necessary to ensure that quality services remain "available at just, reasonable and affordable rates."[719]

D. Mechanisms for Carriers Until Support is Provided Based on Forward-Looking Economic Cost

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[717] *See, e.g,* Letter from Kenneth Rust, NYNEX, to William F. Cation, FCC, dated Sep. 25, 1996, att. at 3; R. Crandall, L. Waverman, *Talk Is Cheap: The Promise of Regulatory Reform in North American Telecommunications* (1995) at 84.

[718] *See infra* section X.E.

[719] 47 U.S.C. § 254(b)(1).

1. Non-Rural Carriers

273. We will continue to use the existing high cost support mechanisms for non-rural carriers through December 31, 1998, by which time we will have a forward-looking cost methodology in place for non-rural carriers. We are also adopting rules that will make this support portable, or transferable, to competing eligible telecommunications carriers when they win customers from ILECs or serve previously unserved customers. We also shall limit the amount of corporate operations expenses that an ILEC can recover through high cost loop support. We shall also extend the indexed cap on the growth of the high cost fund. These modifications to the existing mechanisms shall take effect on January 1, 1998.

274. We anticipate that mechanisms based on existing support will be in effect for non-rural carriers only until December 31, 1998. We find that, because we will continue to base support on the existing mechanisms for such a short period, we do not think it necessary to make significant changes to the existing universal service support mechanisms prior to the introduction of the forward-looking economic cost mechanisms.

275. Although the Joint Board defined universal service to include support for single residential and business lines only, we join the state members of the Joint Board in recognizing that an abrupt withdrawal of support for multiple lines may significantly affect the operations of carriers currently receiving support for businesses and residential customers using multiple lines. Again, because we will only continue to use the existing support mechanisms for 1998, we find that non-rural carriers should continue to receive high cost assistance and LTS for all lines. We shall continue to evaluate whether support for second residential lines, second residences, and multiple line businesses should be provided under the forward-looking economic cost methodology.[720]

276. Alternative Options. We have considered different methods for calculating support until a forward-looking economic cost methodology for non-rural carriers becomes effective. First, we could extend application of the Joint Board's recommendation for rural carriers to non-rural carriers and provide high loop cost support and LTS benefits on a per-line basis for all high cost carriers, based on amounts received for each line that are set at previous years' embedded costs. We decline to take that approach, however, because we, like the state members of the Joint Board, are concerned that a set per-line support level may not provide carriers adequate support because such support does not take into consideration any necessary and efficient facility upgrades by the carrier.[721] We are persuaded by the commenters that this set per-line methodology may have an adverse impact on carriers that

[720] *See supra* section IV.D.

[721] *See* State High Cost Report at 2.

are currently receiving high cost support.[722]

277. A second alternative would be to calculate costs based on the models before us, either by choosing a model or taking an average from the results of the models.[723] As we have stated, flaws in and unanswered questions about the models that have been submitted in this proceeding prevent us from choosing one now to determine universal service support levels. For example, the proponents use widely divergent input values for structure sharing and switch costs to determine the cost of providing service.[724] We agree with the commenters that these variations account for a large part of the difference in results between the models.[725] We also agree with the state members of the Joint Board that the current versions of the models are flawed in how they distribute households within a CBG.[726] The BCPM and Hatfield models also inaccurately determine the wire centers serving many customers.[727] These inaccuracies can create great variance in the costs of service determined by the models. In some instances these inaccuracies lead to predictions that some rural carriers with only a few wire centers may not serve any customers or serve far fewer customers than they actually do. For those reasons, we find that it would better serve the public interest not to use the current versions of the models, but to continue to work with the model proponents, industry, and the state commissions to improve the models before we select one to determine universal service support. Likewise, we find that taking an average of the models will not address their underlying flaws.

278. At this point we conclude that we should not select one model over another because both models lack a compelling design algorithm that specifies where within a CBG customers are located. The BCPM model continues to uniformly distribute customers within the CBG, and therefore spreads customers across empty areas and generates lot sizes that appear to be larger than the actual lot sizes. On the other hand, the clustering algorithm used in the Hatfield 3.1 model requires that 85 percent of the population live within two or four clusters within a CBG. This requirement could misrepresent actual population locations when the population is clustered differently. We also find that it will be helpful in the selection of a forward-looking economic cost methodology to have different models to compare and

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[722] *See, e.g.,* Evans Tel. Co. comments at 8; TDS Telecom comments at 39; ITC reply comments at 3.

[723] *See* Letter from Warren D. Hannah, Sprint, to William F. Caton, FCC dated March 21, 1997, attachment.

[724] We will be specifically addressing the differences in the inputs used by the proponents in the FNPRM.

[725] *See, e.g.,* ALTS post-workshop comments at 3; Aliant model comments at 2.

[726] State High Cost Report at 8.

[727] *See* State High Cost Report at 8.

contrast.[728] We are confident that we will be able to gather sufficient data in the approaching months to select a forward-looking economic cost methodology.

279. A third alternative is the proposal made by BANX to base universal support on prices for unbundled network elements.[729] We reject this alternative because the record before us indicates that the states have yet to set prices for all of the unbundled network elements needed to provide universal service, including loop, inter-office transport, and switching. In addition, to the extent states have established pricing for such elements, that pricing is only interim.[730]

280. We conclude that the public interest is best served by using high cost mechanisms that allow carriers to continue receiving support at current levels while we continue to work with state regulators to select a forward-looking economic cost methodology. This approach will ensure that carriers will not need to adjust their operations significantly in order to maintain universal service in their service areas pending adoption of a forward-looking economic cost methodology. It will also allow the carriers and the Commission time to analyze and consider other regulatory changes now occurring, such as access charge reform, and the effects of growing competition in the local exchange market, as part of the process of selecting the forward-looking economic cost methodology.

281. Indexed Cap. In order to allow an orderly conversion to the new universal service mechanisms, the Joint Board on June 19, 1996 recommended extending the interim

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[728] *See* Johnson/Nelson Dissent at 2; NCTA model reply comments att. at iii. *See also* Statement of Ben Johnson, Ben Johnson Associates, *Workshop Jan. 14 Transcript* at 16-17; Statement of Robert Mercer, Hatfield Associates, *Workshop Jan. 15 Transcript* at 237.

[729] BANX reply comments at 14-15.

[730] In arbitrating interconnection disputes, states are generally setting interim rather than permanent rates. *See, e.g., Petition of AT&T Communications of the Mountain States, Inc. for Arbitration of Interconnection Rates, Terms, and Conditions With U S West Communications, Inc.*, Docket No. U-2428-96-417 (Arizona Corporation Commission December 10, 1996); *Petition of AT&T Communications, Inc. for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Pacific Bell*, Application 96-08-040 (California Public Utilities Commission December 11, 1996); *Petition of AT&T Communications of New York, Inc. for Arbitration of an Interconnection Agreement with New York Telephone Company*, Case No. 96-C-0723 (New York Public Service Commission November 29, 1996); *Petition of AT&T Communications of Virginia, Inc., for Arbitration of Unresolved Issues From the Interconnection Negotiations with GTE South, Inc.*, Case No. PUC960117 (Virginia State Corporation Commission December 11, 1996). We also note that the part of the Commission's *Local Competition Order* concerning forward-looking costs has been stayed. *See* Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, *First Report and Order*, FCC 96-235 (rel. Aug. 8, 1996) , *partial stay granted, Iowa Util. Bd. v. FCC*, No. 96-3321, 1996 WL 589204 (8th Cir. Oct. 15, 1996) *Order Lifting Stay in Part*, (8th Cir. Nov. 1, 1996)

cap limiting growth in the Universal Service Fund until the effective date of the rules the Commission adopts pursuant to section 254 and the Joint Board's recommendation.[731] We adopted that recommendation on June 26, 1996.[732] Because we will continue to use the existing universal service mechanisms, with only minor modifications, until the forward-looking economic cost mechanisms become effective, we clarify that the indexed cap on the Universal Service Fund will remain in effect until all carrier receive support based on a forward-looking economic cost mechanism. We anticipate that non-rural carriers will begin receiving universal service support based on the forward-looking economic cost mechanisms on January 1, 1999.

282. Continued use of this indexed cap will prevent excessive growth in the size of the fund during the period preceding the implementation of a forward-looking support mechanisms. We find that a cap will encourage carriers to operate more efficiently by limiting the amount of support they receive. From our experience with the indexed cap on the current high cost support mechanisms, implemented pursuant to the recommendations of the Joint Board in the 80-286 proceeding, we find that the indexed cap effectively limits the overall growth of the fund, while protecting individual carriers from experiencing extreme reductions in support.[733]

283. Corporate Operations Expense. In order to ensure that carriers use universal service support only to offer better service to their customers through prudent facility investment and maintenance consistent with their obligations under section 254(k),[734] we shall limit the amount of corporate operations expense that may be recovered through the support mechanisms for high loop costs.[735] A limitation on the inclusion of such expenses was proposed in the *80-286 NPRM*.[736] Commenters in this proceeding and the 80-286 proceeding

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[731] Federal-State Joint Board on Universal Service, *Recommended Decision*, 11 FCC Rcd 7928 (1996).

[732] Federal-State Joint Board on Universal Service, *Report and Order*, 11 FCC Rcd 7920 (1996).

[733] *See* Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, *CC Docket No. 80-286, Report and Order*, 9 FCC Rcd 303 (1993). *See also* Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, CC Docket No. 80-286, *Report and Order*, 11 FCC Rcd 2538 (1996).

[734] 47 U.S.C. § 254(k).

[735] Corporate operations expense are recorded in Account 6710 (Executive and planning) and Account 6720 (General and administrative). *See* 47 C.F.R. §§ 32.6710 and 32.6720.

[736] Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, *Notice of Proposed Rule Making and Notice of Inquiry,* 10 FCC Rcd 12309 (1995) (*80-286 NPRM*) at 12324. The Commission initiated a rule making proceeding in CC Docket No. 80-286 to modify the current support mechanism for high cost and small telephone companies. The primary goals of that proceeding were to eliminate barriers to competitive entry, contain the size of the fund at a reasonable level, and promote efficient

generally support limiting the amount of corporate operations expense that can be recovered through the high cost mechanisms because costs not directly related to the provision of subscriber loops are not necessary for the provision of universal service.[737] Most commenters suggest that there be a cap on the amount of corporate operations expense that a carrier is allowed to recover through the universal service mechanism,[738] but some assert that these expenses should not be allowed at all.[739] We agree with the commenters that these expenses do not appear to be costs inherent in providing telecommunications services, but rather may result from managerial priorities and discretionary spending.[740] Consequently, we intend to limit universal service support for corporate operations expense to a reasonable per-line amount, recognizing that small study areas, based on the number of lines, may experience greater amounts of corporate operations expense per line than larger study areas.

284. We conclude that, for each carrier, the amount of corporate operations expense per line that is supported through our universal service mechanisms should fall within a range of reasonableness. We shall define this range of reasonableness for each study area as including levels of reported corporate operations expense per line up to a maximum of 115 percent of the projected level of corporate operations expense per line. The projected corporate operations expense per line for each service area will be based on the number of access lines and calculated using a formula developed from a statistical study of data submitted by NECA in its annual filing.[741]

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investment and operation of local service networks. *Id*. at paras. 5, 17-75. The Commission incorporated into this proceeding the portion of the record from CC Docket 80-286 that relates to changing the support mechanisms found in Part 36 of the Commission's rules. NPRM at para. 39.

[737] *See, e.g.,* New York DPS NPRM comments at 6; AT&T NPRM further comments at 2-4, app. A; Sprint *80-286 NPRM* comments at 10-14; NASUCA *80-286 NPRM* comments at 11-12.

[738] *See, e.g.,* NECA NPRM further comments (Commission could limit the amount of such expenses included in high cost support); GTE 80-286 NPRM comments at 43 (Commission should establish limits on the amount of such expenses included in high cost support); NYNEX 80-286 NPRM comments at 14-15 (might be reasonable to cap the level of such expenses).

[739] *See, e.g.,* Ad Hoc Telecom NPRM comments at 12; AT&T NPRM further comments at 2-4; ACTA 80-286 NPRM comments at 9.

[740] *See, e.g.,* Washington UTC NPRM further comments at 17; MCI 80-286 NPRM comments at 10-16; MFS 80-286 NPRM comments at 12.

[741] For study areas with 10,000 loops or fewer, the amount per line shall be $27.12 - (0.002 x the number of access lines). For study areas with more than 10,000 lines, the amount per line shall be $7.12. This formula represents the relationship between corporate operating expenses per line for the typical company and its number of access lines. A study of the data for corporate operating expenses per line and access lines suggests that these costs per line decline as access lines increase to 10,000, at which point these costs per line become approximately flat. A regression technique was applied to this information that showed corporate operating

285. Furthermore, we will grant study area waivers only for expenses that are consistent with the principle in section 254(e) that carriers should use universal service support for the "provision, maintenance, and upgrading of facilities and services for which the support is intended."[742] Consistent with our limitation on corporate operations expense discussed above, we believe that corporate operations expense in excess of 115 percent of the projected levels are not necessary for the provision of universal service, and therefore, absent exceptional circumstances, we will not grant waivers to provide additional support for such expenses. To the extent a carrier's corporate operations expense is disallowed pursuant to these limitations, the national average unseparated cost per loop shall be adjusted accordingly.

286. Portability of Support. Under section 254(e), eligible telecommunications carriers are to use universal service support for the provision, maintenance, and upgrading of facilities and services for which the support is intended.[743] When a line is served by an eligible telecommunications carrier, either an ILEC or a CLEC, through the carrier's owned and constructed facilities, the support flows to the carrier because that carrier is incurring the economic costs of serving that line.

287. In order not to discourage competition in high cost areas, we adopt the Joint Board's recommendation to make carriers' support payments portable to other eligible telecommunications carriers prior to the effective date of the forward-looking mechanism. A competitive carrier that has been designated as an eligible telecommunications carrier shall receive universal service support to the extent that it captures subscribers' lines formerly served by an ILEC receiving support or new customer lines in that ILEC's study area. At the same time, the ILEC will continue to receive support for the customer lines it continues to serve. We conclude that paying the support to a CLEC that wins the customer's lines or adds new subscriber lines would aid the emergence of competition.[744] Moreover, in order to avoid creating a competitive disadvantage for a CLEC using exclusively unbundled network elements, that carrier will receive the universal service support for the customer's line, not to

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expenses per line declining as the number of access lines increases for those companies with fewer then 10,000 access lines and remaining constant for companies with more than 10,000 lines. A spline function technique was used to force the two linear regressions with different slopes to meet at the point of 10,000 lines. The parameters in the formula are taken from the coefficients estimated with this regression. FCC Staff Analysis of Universal Service Fund 1996 Submission of 1995 Study Results by the National Exchange Carrier Association (filed Oct. 1, 1996).

[742] 47 U.S.C. § 254(e).

[743] 47 U.S.C. § 254(e).

[744] Non-rural carriers that currently receive high cost loop support get between $.04 and $13.55 per line per month in support for their study areas. Staff Analysis of Universal Service Fund 1996 Submission of 1995 Study Results by the National Exchange Carrier Association (filed Oct. 1,1996).

exceed the cost of the unbundled network elements used to provide the supported services. The remainder of the support associated with that element, if any, will go the ILEC to cover the ILEC's economic costs of providing that element in the service area for universal service support.[745]

288. During the period in which the existing mechanisms are still defining high cost support for non-rural carriers, we find that the least burdensome way to administer the support mechanism will be to calculate an ILEC's per-line support by dividing the ILEC's universal service support payment under the existing mechanisms by the number of loops served by that ILEC. That amount will be the support for all other eligible telecommunications carriers serving customers within that ILEC's study area.[746]

289. We are not persuaded by commenters that assert that providing support to CLECs based on the incumbents' embedded costs gives preferential treatment to competitors and is thus contrary to the Act and the principle of competitive neutrality.[747] While the CLEC may have costs different from the ILEC, the CLEC must also comply with Section 254(e), which provides that "[a] carrier that receives such support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended." Furthermore, because a competing eligible telecommunications carrier must provide service and advertise its service throughout the entire service area, consistent with section 254(e), the CLEC cannot profit by limiting service to low cost areas. If the CLEC can serve the customer's line at a much lower cost than the incumbent, this may indicate a less than efficient ILEC. The presence of a more efficient competitor will require that ILEC to increase its efficiency or lose customers. State members of the Joint Board concur with our determinations regarding the portability of support.[748]

290. As previously stated, we conclude that carriers that provide service throughout their service area solely through resale are not eligible for support. In addition, we clarify the Joint Board's recommendation on eligibility and find that carriers that provide service to some

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[745] For loops, the CLEC will receive the lesser of the unbundled network element price for the loop or the ILEC's per-line draw from the high cost loop support and LTS, if any. Because non-rural ILECs are ineligible for DEM weighting, the CLEC will not receive any support for switching costs.

[746] When the support is based on the forward-looking economic costs of serving lines in a particular geographic area, the carrier that serves the line, either the ILEC or the CLEC, will receive the support for that line, sharing only if the CLEC takes that loop as an unbundled network element at a rate less than the universal service support for that line. At that time the support level will no longer be based on the ILEC's support per line under the existing support mechanisms. *See supra* section VI.

[747] *See, e.g.*, Evans Tel. Co. comments at 12; RTC comments at 15; Western Alliance comments at 14.

[748] State High Cost Report at 3.

customer lines through their own facilities and to others through resale are eligible for support only for those lines they serve through their own facilities.[749] The purpose of the support is to compensate carriers for serving high cost customers at below cost prices. When one carrier serves high cost lines by reselling a second carrier's services, the high costs are borne by the second carrier, not by the first, and under the resale pricing provision the second carrier receives revenues from the first carrier equal to end-user revenues less its avoidable costs. Therefore it is the second carrier, not the first, that will be reluctant to serve absent the support, and therefore it should receive the support.

2. Rural Carriers

291. Use of Embedded Cost to Set Support Levels for Rural Carriers. We adopt the Joint Board's recommendation that, after a reasonable period, support for rural carriers also should be based on their forward-looking economic cost of providing services designated for universal service support. Although it recommended using forward-looking economic cost calculated by using a cost model to determine high cost support for all eligible telecommunications carriers, the Joint Board found that the proposed models could not at this time precisely model small, rural carriers' cost.[750] The Joint Board expressed concern that, if the proposed models were applied to small, rural carriers, the models' imprecision could significantly change the support that such carriers receive, providing carriers with funds at levels insufficient to continue operations or, at the other extreme, a financial windfall.[751] The Joint Board noted that, compared to the large ILECs, small, rural carriers generally serve fewer subscribers, serve more sparsely populated areas, and do not generally benefit from economies of scale and scope as much as non-rural carriers.[752] Rural carriers often also cannot respond to changing operating circumstances as quickly as large carriers.[753] We agree with the Joint Board and adopt its recommendation that rural carriers not use a cost model or other means of determining forward-looking economic cost immediately to calculate their support for serving rural high cost areas, but we do support an eventual shift from the existing system.

292. Like the Joint Board, we disagree with commenters that contend that using embedded cost is the only way to set the level of universal service support needed for rates to

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[749] *See supra* section VI.B. for a discussion of what constitutes a carrier's own facilities.

[750] Recommended Decision, 12 FCC Rcd at 234-35.

[751] Recommended Decision, 12 FCC Rcd at 235.

[752] Recommended Decision, 12 FCC Rcd at 235. *See also* Harris comments at 3; ICORE comments at 12; Minnesota Coalition comments at 18.

[753] Recommended Decision, 12 FCC Rcd at 234-35.

be affordable. Because rural carriers' contributions to universal service support mechanisms will be small relative to the support they will draw, we do not find persuasive RTC's contention that the Commission should maintain the current support mechanisms because rural carriers may suffer significant reductions in net support if all carriers are required to contribute to the new universal service mechanisms.[754] We also find no statutory mandate that we calculate universal service support based on embedded cost.[755] Rather, we conclude that the 1996 Act's mandate to foster competition in the provision of telecommunications services in all areas of the country and the principle of competitive neutrality compel us to implement support mechanisms that will send accurate market signals to competitors. We find that the current support mechanisms neither ensure that ILECs are operating efficiently nor encourage them to do so. Indeed, by guaranteeing carriers recovery of 100 percent of all loop costs in excess of 150 percent of the national average loop cost, the current high cost funding mechanisms effectively discourage efficiency. Thus, we agree with CSE that calculating high cost support based on embedded cost is contrary to sound economic policy. We conclude that basing support on forward-looking economic cost or perhaps competitive bidding will require telecommunications carriers to operate efficiently and will facilitate the move to competition in all telecommunications markets.

293. Use of a Forward-Looking Economic Cost Methodology by Small Rural Carriers. We acknowledge commenters' concerns that the proposed mechanisms incorporating forward-looking economic cost methodologies filed in this proceeding should not in their present form be used to calculate high cost support for small, rural carriers. At present, we recognize that these mechanisms cannot presently predict the cost of serving rural areas with sufficient accuracy.[756] Consistent with the Joint Board's recommendation, we anticipate, however, that forward-looking support mechanisms that could be used for rural carriers within the continental United States will be developed within three years of release of this Order.[757] We conclude that a forward-looking economic cost methodology consistent with the principles we set forth in this section should be able to predict rural carriers' forward-looking economic cost with sufficient accuracy that carriers serving rural areas could continue to make infrastructure improvements and charge affordable rates. Like the Joint Board, we conclude that calculating support using such a forward-looking economic cost methodology would comply with the Act's requirements that support be specific, predictable, and sufficient and that rates for consumers in rural and high cost areas be affordable and reasonably comparable

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[754] RTC comments at 14.

[755] *See* Minnesota Coalition comments at 13.

[756] *See, e.g.,* GVNW comments at att. B, 3, 4; John Staurulakis comments at 4; Minnesota Coalition comments at 18; Roseville comments at 12; ALLTEL reply comments at 3; RTC reply comments at 2.

[757] Pending further review, we will not require rural carriers in Alaska and insular areas to calculate support based on a forward-looking cost method. *See infra* regarding the treatment of rural carriers in insular areas.

to rates charged for similar services in urban areas. Moreover, such a mechanism could target support by calculating costs over a smaller geographical area than the study areas currently used. In addition, we find that the use of mechanisms incorporating forward-looking economic cost principles would promote competition in rural study areas by providing more accurate investment signals to potential competitors. Accordingly, we find that, rather than causing rural economies to decline, as some commenters contend, the use of such a forward-looking economic cost methodology could bring greater economic opportunities to rural areas by encouraging competitive entry and the provision of new services as well as supporting the provision of designated services.[758] Because support will be calculated and then distributed in predictable and consistent amounts, such a forward-looking economic cost methodology would compel carriers to be more disciplined in planning their investment decisions. We are thus unpersuaded by Minnesota Coalition's argument that rural service areas are too small to enable carriers to make investments at consistent levels each year.

294. Conversion to a Forward-Looking Economic Cost Methodology. Consistent with the Joint Board, we recognize that new universal service funding mechanisms could significantly change (but not necessarily diminish) the amount of support rural carriers receive. Moreover, we agree that compared to large ILECs, rural carriers generally serve fewer subscribers, serve more sparsely populated areas, and do not generally benefit as much from economies of scale and scope. For many rural carriers, universal service support provides a large share of the carriers' revenues, and thus, any sudden change in the support mechanisms may disproportionately affect rural carriers' operations. Accordingly, we adopt the Joint Board's recommendation to allow rural carriers to continue to receive support based on embedded cost for at least three years. Once a forward-looking economic cost methodology for non-rural carriers is in place, we shall evaluate mechanisms for rural carriers. Rural carriers will shift gradually to a forward-looking economic cost methodology to allow them ample time to adjust to any changes in the support calculation.

295. Treatment of Rural Carriers. We conclude that a gradual shift to a forward-looking economic cost methodology for small, rural carriers is consistent with the Act and our access charge reform proceeding. Section 251(f)(1) grants rural telephone companies an exemption from section 251(c)'s interconnection requirements, under specific circumstances, because Congress recognized that it might be unfair to both the carriers and the subscribers they serve to impose all of section 251's requirements upon rural companies.[759] Furthermore,

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[758] *See, e.g.*, Evans Tel. Co. comments at 9; RUS comments at 1; Universal Service Alliance comments at 4; Western Alliance comments at 2.

[759] For example, section 251(f)(1) exempts rural telephone companies from the requirements of section 251(c)(2) until the rural telephone company has received a bona fide request for interconnection, services, or network elements, and the state commission determines that the exemption should be terminated. In addition, section 251(f)(2) permits ILECs with fewer than two percent of the nation's subscriber lines to petition a state

the companion *Access Charge Reform Order* limits application of the rules adopted in that proceeding to price-cap ILECs.[760] The *Access Charge Reform Order* concludes that access reform for non-price-cap ILECs, which tend to be small, rural carriers, will occur separately from reform for price-cap ILECs because small, rural ILECs, which generally are under rate-of-return regulation, may not be subject to some of the duties under section 251(b) and (c) and will likely not have competitive entry into their markets as quickly as price cap ILECs will experience.[761] Because the Commission's access reform proceeding does not propose generally to change access charge rules for non-price-cap ILECs, we find without merit Minnesota Coalition's argument that the current embedded-cost support mechanisms must be maintained because changes to Part 69 may cause rural carriers' revenues to decrease.[762] Consistent with our approach towards non-price-cap ILECs in access charge reform, we conclude that rural carriers' unique circumstances warrant our implementation of separate mechanisms.

296. Supported Lines. In the process of selecting a forward-looking economic cost methodology for calculating universal service support for carriers serving high cost areas, we will determine whether lines other than primary residential and single business connections should be eligible for support. For this reason, we conclude that rural carriers should continue to receive high cost loop assistance, DEM weighting, and LTS support for all their working loops until they move to a forward-looking economic cost methodology. State members of the Joint Board concur with this determination.[763]

297. Modifications to Existing Support Mechanisms. The Joint Board recommended that for the three years beginning January 1, 1998, high cost support for rural ILECs be calculated based on high cost loop support, DEM weighting, and LTS benefits for each line

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commission for a suspension or modification of any requirements of sections 251(b) and (c). *See Local Competition Order*, 11 FCC Rcd at 16,118; 47 U.S.C § 251(b), (c) and (f).

[760] *Access Charge Reform Order* at section V. The price-cap ILECS affected by the *Access Charge Reform Order* include the seven Regional Bell Operating Companies (Ameritech, Bell Atlantic, BellSouth, NYNEX, Pacific Bell, SBC, U S West), Citizens Utilities, Frontier, GTE, Aliant (formerly Lincoln), SNET, and United/Central.

[761] *Access Charge Reform Order* at section V.

[762] *Access Charge Reform Order* at section V. Price-cap ILECs that serve rural areas, however, are not exempt from the Commission's rules in the *Access Charge Reform Order*. We note in our response to Citizens Utilities' request in the access charge reform proceeding for exemption from some of the rules adopted in that order that a carrier's election of price cap regulation is an indication that it believes it can achieve a higher rate of productivity under price-cap regulation than under rate-of-return regulation. *See Access Charge Reform Order* at section V.

[763] State High Cost Report at 2.

based on historic support amounts. We are persuaded, however, by the commenters[764] and the recent State High Cost Report that, even in the absence of new plant construction, this may not provide rural carriers adequate support for providing universal service because support to offset cost increases in maintenance expenses due to natural disasters or inflation would not be available. We also find that, in order to maintain the quality of the service they offer their customers, carriers may not be able to avoid upgrading their facilities. We find that, consistent with the State High Cost Report, the level of support recommended by the Joint Board may not permit carriers to afford prudent facility upgrades.

298. The state members recommend that the Commission adopt an industry proposal regarding the determination of the needed amount of support for rural carriers rather than the recommendation of the Joint Board. Expressing concern that setting high cost support, DEM weighting, and LTS at the current per-line amount could discourage carriers from investing in their networks, the state members endorse a proposal that would: (1) use a carrier's embedded costs as compared to the 1995 nationwide average loop cost, adjusted annually to reflect inflation, to determine whether a carrier receives high cost support; (2) use the 1995 interstate allocation factor for DEM weighting; and (3) freeze the percentage of the NECA pool that is associated with LTS at 1996 levels.[765] The state Joint Board members further recommend that, during the period before rural carriers begin to draw support based solely on a forward-looking cost methodology, each carrier continue to receive support based on all of the carrier's working lines, not just the eligible residential and single-line business lines.[766] The state members of the Joint Board also depart from the Joint Board's recommendation that rural carriers not be allowed to elect to draw support solely based on forward-looking economic costs until January 1, 2001, when all rural carriers would begin using a forward-looking cost study for calculating their high cost support.[767]

299. We are persuaded by commenters stating that rural carriers require more time to adjust to any change in universal service support than large carriers do. While giving rural carriers ample time to plan for changes from the current methodology, we shall retain many features of the current support mechanisms for them until they move to a forward-looking economic cost methodology. Because we believe that rural carriers must begin immediately to plan their network maintenance and development more carefully, we will use some attributes of the ILEC Associations' proposal to limit the growth of the size of the current high cost

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[764] *See, e.g.*, Evans Tel. Co. comments at 8, 9; ITC comments at 4, 5; RTC comments at 12; Rural Alliance comments at 7; TCA comments at 2; USTA comments at 8; Western Alliance comments at 37.

[765] *See* ILEC Associations' February 14 *ex parte*; ILEC Associations' March 13 *ex parte.*

[766] State High Cost Report at 3.

[767] State High Cost Report at 4.

support mechanisms beginning in 2000. We will use those mechanisms until they are replaced by the forward-looking economic cost methodology. The ILEC Associations' proposal would control the growth in support received by the carriers but still leave support to cover, at least partially, costs of essential plant investment.[768] Because they find this proposal to offer a better initial mechanism for rural carriers than the Joint Board's recommendations, state Joint Board members also support the ILEC Associations' proposal.[769] Starting on January 1, 1998, rural carriers shall receive high cost loop support, DEM weighting assistance, and LTS benefits on the basis of the modification of the existing support mechanism, described below. In addition, the other modifications to the existing mechanisms set forth shall also take effect on January 1, 1998.

300. High Cost Loop Support. We agree with the state members of the Joint Board that rural carriers may require a greater amount of support than fixed support mechanisms would provide.[770] Consequently, we decline to adopt the Joint Board's recommendation to base support for high cost loops on costs reported in 1995. In order to maintain existing facilities and make prudent facility upgrades until such time as a forward-looking support mechanisms are in place, we direct that the use of the current formula to calculate high cost loops for rural ILECs continue for two years. Thus from January 1, 1998 through December 31, 1999, rural carriers will calculate support using the current formulas.[771]

301. Beginning January 1, 2000, however, rural carriers shall receive high loop cost support for their average loop costs that exceed 115 percent of an inflation-adjusted nationwide average loop cost. The inflation-adjusted nationwide average cost per loop shall be the 1997 nationwide average cost per loop as increased by the percentage in change in Gross Domestic Product Chained Price Index (GDP-CPI)[772] from 1997 to 1998.[773] We index loop costs to inflation in order to limit the growth in the fund because, historically, small carriers' costs have risen faster than the national average cost per loop. As a result, small

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[768] *See* ILEC Associations' February 14 *ex parte.*

[769] State High Cost Report at 2.

[770] State High Cost Report at 2-3.

[771] *See* 47 C.F.R. § 36.631(c), (d).

[772] The Bureau of Economic Analysis, Department of Commerce, calculates and issues this index annually.

[773] The inflation-adjusted nationwide average loop cost for the year 2000 shall be calculated in the following manner:

$$\frac{\text{1998 GDP-CPI}}{\text{1997 GDP-CPI}} \times \text{1997 nationwide average loop cost} = \text{2000 inflation-adjusted nationwide average loop cost.}$$

carriers have drawn increased support from the fund. We are using the GDP-CPI of the year for which costs are reported because the support mechanisms reflect a two-year lag between the time when the costs on which support is based are incurred and the distribution of support. We are using the 1997 nationwide average loop cost per loop as the benchmark because the 1998 nationwide average loop costs would not be calculated until September 1999. The percentage of the above-average loop cost that rural carriers may recover from the support mechanisms during 2000 will remain consistent with the current provisions concerning support for high loop costs in the Commission's rules. We note that this modification to the existing benchmark for calculating high cost loop support enjoys wide support among ILEC commenters and is supported by the state Joint Board members in their report.[774] We also conclude that rural carriers should continue to receive this support through the jurisdictional separations process, by allocating to the interstate jurisdiction the amount of a recipient's universal service support for loop costs.[775]

302. Indexed Cap. Until rural carriers calculate their support using a forward-looking economic cost methodology, we shall continue to prescribe a cap on the growth of the fund to support high cost loops served by either non-rural and rural carriers equal to the annual average growth in lines. Because beginning January 1, 1999, non-rural carriers will no longer receive support under the existing universal service mechanisms, it is necessary to recalculate the cap based on the costs of the rural carriers that will remain under the modified existing support mechanisms. This overall cap will prevent excessive growth in the size of the fund during the period preceding the implementation of a forward-looking support mechanisms. We conclude that a cap will encourage carriers to operate more efficiently by limiting the amount of support they receive. We also conclude that excessive growth in high loop cost support would make the change to forward-looking support mechanisms more difficult for rural carriers if those support mechanisms provide significantly different levels of support. From our experience with the indexed cap on the current high cost support mechanisms, implemented pursuant to the recommendations of the 80-286 Joint Board proceeding, we conclude that the indexed cap effectively limits the overall growth of the fund, while protecting individual carriers from experiencing extreme reductions in support.[776]

303. DEM Weighting Support. We adopt the Joint Board's recommendation that a subsidy corresponding in amount to that generated formerly by DEM weighting be recovered

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[774] State High Cost Report at 2.

[775] This allocation to the interstate jurisdiction would be in addition to any general allocation of loop costs to the interstate jurisdiction required by our rules. *See* 47 C.F.R. § 36.601.

[776] *See* Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, *CC Docket No. 80-286, Report and Order*, 9 FCC Rcd 303 (1993). *See also* Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, CC Docket No. 80-286, *Report and Order*, 11 FCC Rcd 2538 (1996); Federal State Joint Board on Universal Service, CC Docket No. 96-45, *Report and Order*, 61 Fed. Reg. 34376 (July 2, 1996).

from the new universal service support mechanisms.[777] Accordingly, the local switching costs assigned to the interstate jurisdiction beginning in 1998 will include an amount based on the modified DEM weighting factor. We will not, however, set DEM weighting support on a per-line basis and calculate support for high switching costs based on the amount by which revenues collected by each carrier exceed what would be collected without DEM weighting for calendar year 1996. We conclude that setting support at those levels may not provide rural carriers with sufficient resources to enable the carriers to make prudent upgrades to their switching facilities so that they may continue to offer quality service to their customers. As we have discussed above, we do not believe that the fixed per-line support recommended by the Joint Board would provide rural carriers adequate support for providing universal service because support to offset increases in maintenance expenses due to natural disasters or inflation would not be available. Furthermore, we find that United Utilities' proposal to use switched minutes of use for allocating local switching costs contemplates a major modification in the Commission's separations rules without providing sufficient description of such a mechanism and its impact in calculating DEM weighting.[778] We decline to consider this proposal because we conclude that further information regarding the effect of such a modification on the allocation of costs among the federal and state jurisdictions is required. We adopt instead a modified version of the ILEC Associations' proposal to provide DEM weighting benefits prior to the conversion to a forward-looking economic cost methodology.

304. Beginning on January 1, 1998, and continuing until a forward-looking economic cost methodology for them becomes effective, rural carriers will receive local switching support based on weighting of their interstate DEM factors. Assistance for the local switching costs of a qualifying carrier will be calculated by multiplying the carrier's annual unseparated local switching revenue requirement by a local switching support factor, where the local switching support factor is the difference between the 1996 weighted and unweighted interstate DEM factors.[779] If the number of a carrier's lines increases during 1997 or any successive year, either through the purchase of exchanges or through other growth in lines, such that the current DEM weighting factor would be reduced, the carrier must apply the lower weighting factor to the 1996 unweighted interstate DEM factor in order

[777] Currently, DEM weighting assistance is an implicit support mechanism recovered through switched access rates charged to interexchange carriers by those ILECs serving fewer than 50,000 lines.

[778] Local switching costs are apportioned as Category 3 switching costs in accounts 2210, 2211, 2212, and 2215 in the Commission's separations rules. *See* 47 C.F.R. §§ 36.122 and 36.125.

[779] In addition, the 85 percent limit on interstate local switching cost set forth in section 36.125(f) of the Commission's rules, 47 C.F.R. § 36.125(f), will continue to apply.

to derive the local switching support factor used to calculate universal service support.[780] We conclude that this mechanism will provide support for carriers to make prudent upgrades to their switching equipment needed to maintain, if not improve, the quality of service to their customers.

305. Long Term Support. Consistent with the Joint Board's recommendation, beginning in 1998, rural carriers will recover from the new universal service support mechanisms LTS at a level sufficient to protect their customers from the effects of abrupt increases in the NECA CCL rates. We agree with those commenters contending that the Joint Board's recommendation that the mechanisms compensate each common line pool member on the basis of its interstate common line revenue requirement relative to the total interstate common line revenue requirement does not consider each carrier's revenues from other sources, such as SLCs and CCL charges.[781] Accordingly, we decline to adopt the Joint Board's recommendation to calculate the support for LTS on a fixed per-line basis. Instead, we adopt a modified per-line support mechanisms for providing LTS.

306. Beginning on January 1, 1998, we shall allow a rural carrier's annual LTS to increase from its support for the preceding calendar year based on the percentage of increase of the nationwide average loop cost. LTS is a carrier's total common line revenue requirement less revenues received from SLCs and CCL charges. This approach ties increases in LTS to changes in common line revenue requirements. Alternative options suggested are not sufficient because they depend on an ability to determine a nationwide CCL charge, which will no longer be possible if the non-pooling carriers switch to a per-line rather than a per-minute CCL charge.

307. Corporate Operations Expense. As we described earlier, for universal service support, we will not prescribe support for corporate operations expense for each carrier study area, as measured on an average monthly per-line basis, in excess of 115 percent of an amount projected for a service area of its sizes. The projected amount will be defined by a formula based upon a statistical study that predicts corporate operations expense based on the number of access lines.

308. Sale of Exchanges. Until support for all carriers is based on a forward-looking economic cost methodology, we conclude that potential universal service support payments may influence unduly a carrier's decision to purchase exchanges from other carriers. In order to discourage carriers from placing unreasonable reliance upon potential universal service

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[780] *See* 47 C.F.R. § 36.125(b). Carriers with 10,000 or fewer access lines use a DEM weighting factor of 3, carriers with 10,001 - 20,000 lines use a DEM weighting factors of 2.5, and carriers with 20,001 to 50,000 lines use a DEM weighting factor of 2.

[781] *See* USTA comments at 29.

support in deciding whether to purchase exchanges from other carriers, we conclude that a carrier making a binding commitment on or after May 7, 1997 to purchase a high cost exchange should receive the same level of support per line as the seller received prior to the sale. For example, if a rural carrier purchases an exchange from a non-rural carrier that receives support based on the forward-looking economic cost methodology, the loops of the acquired exchange shall receive per-line support based on the forward-looking economic cost methodology of the non-rural carrier prior to the sale, regardless of the support the rural carrier purchasing the lines may receive for any other exchanges. Likewise, if a rural carrier acquires an exchange from another rural carrier, the acquired lines will continue to receive per-line support of the selling company prior to the sale. If a carrier has entered into a binding commitment to buy exchanges prior to May 7, 1997, that carrier will receive support for the newly acquired lines based upon an analysis of the average cost of all its lines, both those newly acquired and those it had prior to execution of the sales agreement.[782] This approach reflects the reasonable expectations of such purchasers when they entered into the purchase and sale agreements. After support for all carriers is based on the forward-looking economic cost methodology, carriers shall receive support for all exchanges, including exchanges acquired from other carriers, based on the forward-looking economic cost methodology. We note that, when all carriers receive support based on forward-looking economic costs, the level of support will not be a primary factor in a carrier's decision to purchase exchanges because the carrier's support will not be based on the size of the study area nor embedded costs.

309. Early Use of Forward-Looking Economic Cost Methodology. Consistent with the recommendations in the State High Cost Report, at this time, we find that, because of the current methodologies' high margin of error for rural areas, we should not permit rural carriers to begin to use the forward-looking economic cost methodology when the non-rural ILECs do. We conclude that a forward-looking economic cost methodology developed for non-rural carriers will require further review before being applied to rural carriers. We conclude that a forward-looking economic cost methodology for rural carriers should not be implemented until there is greater certainty that the mechanisms account reasonably for the cost differences in rural study areas.[783]

310. Certification as a Rural Carrier. Consistent with the Joint Board's recommendation, we define "rural carriers" as those carriers that meet the statutory definition of a "rural telephone company."[784] In order for the administrator to calculate support

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[782] *See supra* section VII.D.2, for a discussion of how acquisition of additional lines affects computation of a rural carrier's support for switching costs.

[783] State High Cost Report at 4.

[784] 47 U.S.C. § 153(37).

payments, a carrier must notify the Commission and its state commission, that for purposes of universal service support determinations, it meets the definition of a "rural carrier." Carriers should make such a notification each year prior to the beginning of the payout period for that year. We reject the contention of some commenters that a more formal certification process is necessary to prevent abuse. Although carriers may self-certify, the Commission and the state commissions may still verify the accuracy of the carriers' statements. The current support mechanisms rely on truthful reporting by carriers and we have found a high degree of industry compliance with the reporting requirements. In light of this fact, a separate proceeding by the Commission to verify each rural carrier's eligibility for classification as a rural telephone company, as AT&T suggests,[785] would impose significant and unnecessary administrative costs on the Commission and industry. We find that a self-certification process, coupled with random verification by the Commission and the availability of the section 208 compliance process, would ensure that support is distributed to a carrier without delay and still provide adequate protection against abuse.[786]

311. Portability of Support. We adopt the Joint Board's recommendation to make rural carriers' support payments portable. As we discussed above regarding non-rural carriers, a CLEC that qualifies as an eligible telecommunications carrier shall receive universal service support to the extent that it captures subscribers formerly served by carriers receiving support based on the modified existing support mechanisms or adds new customers in the ILEC's study area. We conclude that paying the support to a competitive eligible telecommunications carrier that wins the customer or adds a new subscriber would aid the entry of competition in rural study areas.

312. We shall calculate an ILEC's per-line support by dividing the ILEC's universal service support payment by the number of loops in the ILEC's most recent annual loop count to calculate universal service support for all eligible telecommunications carriers serving customers within that ILEC's study area.[787] Moreover, in order to avoid creating a competitive disadvantage for an eligible CLEC using exclusively unbundled network elements to provide service, that carrier will receive the universal service support for the customer, not to exceed the cost of the unbundled network elements used to provide the supported services. If the service is provided in part through facilities constructed and deployed by the CLEC and

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[785] AT&T comments at 27.

[786] 47 U.S.C. § 208. Members of the public and other state or municipal regulatory bodies may file with the Commission a complaint against a common carrier alleging violations of the Act pursuant to section 208 of the Act.

[787] When the support is based on the forward-looking economic cost of serving lines in a particular geographic area, the carrier that serves the line, either the ILEC or the CLEC, will receive the support for that line, sharing only if the CLEC takes that loop as an unbundled network element at a rate less than the universal service support for that line. *See supra* section VI.B.

in part through unbundled network elements, then support will be allocated between the ILEC and the CLEC depending on the amount of support assigned to each element and whether the carrier constructed the facilities used to provide service or purchased access to an unbundled network element. For example, if a CLEC provides service using a switch that it has constructed and deployed in combination with an unbundled loop element, then the CLEC would receive the per-line DEM support, the support associated with switching, and the lesser of the unbundled loop element rate or the universal service support associated with the loop. The ILEC would receive any universal service support that is in excess of the unbundled loop element rate because this will allow the ILEC to recover its economic cost associated with facilities used to provide universal service.

313. We conclude that determining a rural ILEC's per-line support by dividing the ILECs' universal service support payment by the number of loops served by that ILEC to calculate universal service support for all eligible telecommunications carriers serving customers within that rural ILEC's study area will be the least burdensome way to administer the support mechanisms and will provide the competing carrier with an incentive to operate efficiently. Besides using a forward-looking or embedded costs system, the alternative for calculating support levels for competing eligible telecommunications carriers consists of requiring the CLECs to submit cost studies. Compelling a CLEC to use a forward-looking economic cost methodology without requiring the ILEC's support to be calculated in the same manner, however, could place either the ILEC or the CLEC at a competitive disadvantage. We thus disagree with commenters that assert that providing support to eligible CLECs based on the incumbents' embedded costs would violate Section 254(e).

314. Alaska and Insular Areas. The Joint Board recommended that, because of the unique circumstances faced by rural carriers providing service in Alaska and insular areas, those carriers should not be required to shift to support mechanisms based on the forward-looking economic cost at the same time that other rural carriers are so required. The Joint Board noted that carriers serving insular areas have higher shipping costs for equipment and damage caused by tropical storms, while carriers serving Alaska have limited construction periods and serve extremely remote rural communities.[788] Therefore, the Joint Board recommended that rural carriers in Alaska and insular areas continue to receive support based on the fixed support amounts.[789] The Joint Board further recommended that the Commission revisit at a future date the issue of when to move such carriers to a forward-looking economic cost methodology.[790] Given the plan we adopt in this Order, we find that we do not need to resolve the issue of rural carriers serving Alaska and insular areas at this time because we

[788] Recommended Decision, 12 FCC Rcd at 239-40, 308.

[789] Recommended Decision, 12 FCC Rcd at 239-40.

[790] Recommended Decision, 12 FCC Rcd at 240.

have not set a time frame for rural carriers to move to the forward-looking economic cost methodology. We will revisit this question when we decide the schedule for other rural carriers moving to the forward-looking economic cost methodology.

315. We do not accept the suggestion of Puerto Rico Tel. Co., the twelfth largest telephone company in the nation,[791] that non-rural carriers that serve Alaska or insular areas should be treated as rural carriers and allowed to postpone their conversion to the forward-looking economic cost methodology. Puerto Rico Tel. Co. argues that extreme weather and terrain conditions and high shipping costs justify its continued receipt of support based on embedded cost. The Joint Board's recommendation to postpone application of forward-looking support mechanisms to rural carriers, however, was based on the size of rural carriers and the fact that rural carriers generally serve fewer subscribers and do not benefit from economies of scale and scope as much as non-rural carriers.[792] Even if they are not classified as rural carriers, non-rural carriers that serve Alaska or insular areas will continue to receive universal service support if their service areas are high cost areas. At the same time, however, large telephone companies such as Puerto Rico Tel. Co. should possess economies of scale and scope to deal efficiently with the cost of providing service in their areas, and thus, the level of that support will be determined through a forward-looking mechanism. Consequently, we agree with the Joint Board that non-rural carriers serving Alaska and insular areas should move to the forward-looking economic cost methodology at the same time as other non-rural carriers. We note, however, that we retain the ability to grant waivers of this requirement in appropriate cases.

316. We also decline to adopt USTA's proposal to use the standard set out in section 251(f)(2) of two percent of the nation's subscriber lines installed in the aggregate nationwide to define which carriers serving Alaska or insular areas may continue to receive support based on their set support amounts pending further review by the Commission.[793] That standard is included in section 251, which addresses local competition issues.[794] In other parts of the Act, including those concerning universal service, there is no separate standard for defining rural carriers, so the general definition set out in section 153 applies.[795] As discussed previously, the Act establishes different procedures for "rural telephone companies" in section 214(e),

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[791] Puerto Rico Tel. Co. is the twelfth largest telephone company, including holding companies, as measured by access lines, in the United States with 1,135,679 access lines and operating revenues of $1 billion in 1995. USTA, Statistics of the Local Exchange Carriers (1996) at 5, 24.

[792] *See* Recommended Decision, 12 FCC Rcd at 235.

[793] 47 U.S.C. § 251(f)(2).

[794] *See* 47 U.S.C. § 251.

[795] 47 U.S.C. § 153(47).

which sets forth the requirements for carrier eligibility to receive universal service support and the service areas in which carriers must provide service in order to qualify for such support.[796]

317. We note, however, that the forward-looking economic cost models that have been presented to us so far do not include any information on Alaska or the insular areas.[797] We anticipate that information for non-rural carriers serving Alaska and insular areas will be included in future versions of the models. If such information is not available in a timely manner, we recognize that we may need to adjust the schedule for non-rural carriers serving Alaska and insular areas to move to support based forward-looking economic cost. We will evaluate that situation as we proceed with our determination of a forward-looking economic cost methodology through the FNPRM. We also note that, in the absence of such information in the models, the commissions for Alaska and the insular areas may still submit a state cost study to the Commission.

318. We agree with Guam Tel. Authority that, under the principle set out in section 254(b)(3)[798] this carrier should be eligible for universal service support and clarify the procedures to be used for any carriers, such as Guam Tel. Authority,[799] that may not have historical costs studies on which to base the set support amounts.[800] Guam Tel. Authority or any other carrier serving an insular area, such as CNMI, that is not currently included in the existing universal service mechanism, shall receive support based on an estimate of annual amount of their embedded costs. Such carriers must submit verifiable embedded-cost data to the fund administrator. We anticipate that such carriers will work with the fund administrator to determine the exact support level to which they are entitled.

E. Use of Competitive Bidding Mechanisms

319. In the NPRM, the Commission sought comment on whether competitive bidding could be used to determine universal service support in rural, insular, and high cost areas. Specifically, the Commission asked whether relying on competitive bidding would be

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[796] 47 U.S.C. § 214(e).

[797] *See* BCPM Jan. 31 Submission; Hatfield Feb. 28 Submission.

[798] 47 U.S.C. § 254(b)(3). *See also* Joint Explanatory Statement at 131 ("section 254(b) combines the principles found in both the Senate bill and House amendment, with the addition of 'insular areas' (such as the Pacific Island territories)").

[799] Guam Tel. Authority is the local exchange carrier on Guam. Guam Tel. Authority comments at 2.

[800] *See* Guam Tel. Authority comments at 2.

consistent with section 214(e),[801] the provision of the statute that specifies the circumstances under which telecommunications carriers are eligible to receive universal service support.[802] Under a competitive bidding mechanism eligible telecommunications carriers would bid on the amount of support per line that they would receive for serving a particular geographic area.

320. The Joint Board identified many advantages arising from the use of a competitive bidding system.[803] We agree with the Joint Board and the commenters that a compelling reason to use competitive bidding is its potential as a market-based approach to determining universal service support, if any, for any given area.[804] The Joint Board and some commenters also noted that by encouraging more efficient carriers to submit bids reflecting their lower costs, another advantage of a properly structured competitive bidding system would be its ability to reduce the amount of support needed for universal service.[805] In that regard, the bidding process should also capture the efficiency gains from new technologies or improved productivity, converting them into cost savings for universal service. Like the Pennsylvania PUC,[806] the California PUC,[807] and the Joint Board, we find that competitive bidding warrants further consideration.[808]

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[801] 47 U.S.C. § 214(e).

[802] NPRM at para. 35.

[803] *See* Recommended Decision, 12 FCC Rcd at 266.

[804] *See* AirTouch comments at 24; CSE Foundation comments at 7.

[805] Recommended Decision, 12 FCC Rcd at 266. *See, e.g.*, Ameritech comments at 13; GSA comments at 10; Sprint PCS comments at 6.

[806] The Pennsylvania PUC has recognized this advantage in Pennsylvania Public Utility Commission, *Formal Investigation to Examine and Establish Updated Universal Service Principles and Policies for Telecommunications Services in the Commonwealth*, Opinion and Order, Docket No. I-00940035 (entered Jan. 28, 1997) at 31.

[807] Cal. P.U.C. (D.) 96-10-066 at 215-16, 260.

[808] We also note that Chile and Peru use competitive bidding as part of their universal service programs. In Chile the Rural Telecommunications Development (RTD) Fund is allocated to companies based on an annual competitive bidding process in order to increase the number of public payphones in rural and low-income urban areas. The competitive bidding process is initiated when the Subsecretaria de Telecomunicaciones (SUBTEL), issues an annual report of RTD projects by priority. SUBTEL assigns an "RTD subsidy" for each project and issues a public notice calling for qualified companies to submit bids. Bids are opened during a public meeting, and the lowest bids win. Companies that receive funds are not given any exclusive rights for the areas that they serve. Subsecretaria de Telecomunicaciones (SUBTEL) de Chile. *Funcionamiento del Fondo de Desarollo de las Telecomunicaciones*. SUBTEL document, February, 1997. In Peru, the Organismo Supervisor de la

321. In the Recommended Decision, the Joint Board found, however, that the record before it was insufficient to support the adoption of any particular competitive bidding mechanism.[809] The Joint Board recommended that the Commission continue to investigate how to structure a fair and effective competitive bidding system. The Joint Board specifically recommended that any competitive bidding system be competitively neutral and not favor either the incumbent or new entrants. Only GTE proposed a detailed competitive bidding plan,[810] and even GTE characterized the proposal as an outline rather than a final, fixed proposal.[811] The Joint Board found, however, that the GTE proposal posed serious questions that warranted further inquiry, and set out a number of questions about the GTE plan in the Recommended Decision.[812]

322. We agree with the commenters that suggest we issue a notice to examine issues related to the use of competitive bidding to set universal service support levels for rural,

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Inversion Privada de Telecomunicaciones (OSIPTEL) has stated that it will allocate funds from its Fund for Investment in Telecommunications (FITEL) program through a competitive bidding process similar to the one used in Chile. The FITEL program is intended to expand universal service by bringing telephone service to areas not currently served by Telefonica de Peru, the monopoly provider of telephone services. von Hese, Milton, *Telecommunications for Rural and Preferential Social Interest Areas Development: Strategy and Funding Policy*, Organismo Supervisor de la Inversion Privada de Telecomunicaciones (OSIPTEL) at 13- 17.

[809] Recommended Decision, 12 FCC Rcd at 265.

[810] GTE proposes that the auction process be administered by the states subject to federal guidelines. GTE's proposal would call for a competitive bidding process to replace the proxy-based system used to establish universal service support levels in a market once competing carriers enter that market and are willing to accept all the carrier of last resort obligations imposed on the ILEC. Competitors that wish to become carriers of last resort in a given area would submit a notice of intent to bid to the state commission that would trigger an auction process for that area. The form of the auction would be a sealed bid, single-round auction. An entrant could nominate a set of CBGs as the area it wishes to serve. Those companies making nominations would be required to establish their qualifications to satisfy the carrier of last resort requirement. In order to induce aggressive and low bidding, only those carriers that bid within a specified range of the lowest bidder would be eligible to receive support. The support levels would be the same for each of the carriers in this range and would be set equal to the highest accepted bid in that range. If the auction results in a new carrier of last resort for the area, either in addition to the incumbent or in place of the incumbent, the support levels and obligations for that area would be frozen for three years. No new entrants could receive universal support during this time, although they could enter and provide service without support. After the three-year period, the area could be bid upon again. *See* GTE NPRM further comments at 45-55, Att. 1.

[811] GTE NPRM further comments, att. 1 at 1.

[812] Recommended Decision, 12 FCC Rcd at 268.

insular, and high cost areas.[813] We find that the record in this proceeding does not contain discussion of those issues adequate for us to define at this time a competitive bidding mechanism that is also consistent with the requirements of sections 214(e) and 254. Overall, there is even less discussion in the comments on the Recommended Decision addressing the use of competitive bidding by the Commission than in the comments filed in response to the NPRM and the Common Carrier Bureau's Public Notice.

323. In addition, these most recent comments largely discuss only the general concept of setting universal service support through competitive bidding, and offer only very limited analysis of specific procedures for implementing a lawful competitive bidding system. For example, while the Joint Board asked several specific questions about the GTE proposal,[814] only a few commenters other than GTE discussed that specific plan.[815] In contrast, numerous parties filed substantial comments analyzing the cost models,[816] and the state Joint Board staff has made specific recommendations regarding selection of a cost model to determine the cost of providing the supported services.[817]

324. As several commenters note, it is unlikely that there will be competition in a significant number of rural, insular, or high cost areas in the near future.[818] Consequently, it is unlikely that competitive bidding mechanisms would be useful in many areas in the near future. Given the limited utility of a competitive bidding process in the near term, it is important that we not rush to adopt competitive bidding procedures before we complete a thorough and complete examination of the complex and unique issues involved with developing bidding mechanisms for awarding of universal service support.[819] Furthermore, as

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[813] *See, e.g.,* AirTouch comments at 24; CSE Foundation comments at 10; Sprint PCS comments at 5; GTE reply comments at 61.

[814] *See* Recommended Decision, 12 FCC Rcd at 268.

[815] *See, e.g.,* CSE Foundation comments at 8; AT&T reply comments at 9; RTC reply comments at 20; Teleport reply comments, att.

[816] *See* Appendix J.

[817] *See* State High Cost Report; Majority State Members' Second High Cost Report.

[818] *See*, e.g., CNMI comments at 38; Minnesota Coalition comments at 27; Sprint PCS comments at 5; WorldCom comments at 22.

[819] Among the issues that we would need to address before prescribing a competitive bidding mechanism for universal service support are how to prevent collusion between bidders, whether safeguards are needed to prevent a bidder from bidding excessively low to drive out competitors, whether and how bidders may withdraw from being an eligible carrier based on the support level of the winning bid, and whether additional quality of service standards are needed for areas for which the support levels set by competitive bidding. The FNPRM would also

envisioned in the proposals made to the Commission thus far, competitive bidding will be a complement to, not a substitute for, an alternative forward-looking economic cost methodology. We will seek, as GTE suggests,[820] to define a role for a competitive bidding mechanism as part of the forward-looking economic cost methodology by which support to non-rural carriers for their provision of universal service is defined after December 31, 1998.

325. We shall therefore issue a FNPRM examining specifically the use of competitive bidding to define universal service support for rural, insular, and high cost areas. Our goal will be to develop a record on specific competitive bidding mechanisms sufficient to enable us to adopt one, if we also find it to be in the public interest. A separate proceeding will allow commenters to focus on the issues posed by a decision to use competitive bidding for universal service support in light of our actions in this Order. Although we agree with the Joint Board that competitive bidding is consistent with section 254, and comports with the intent of the 1996 Act to rely on market forces and to minimize regulation,[821] we will more thoroughly address these issues in the FNPRM. That proceeding would also allow us to examine how the results from auctions in areas in which there is competition could be used to adjust the support levels in areas lacking competition, as AirTouch suggests.[822]

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address the issue of whether there are synergies from serving adjacent markets that will have a determinative impact on whether a single-round bidding process or a simultaneous multi-round bidding process would be more efficient.

[820] *See* GTE comments at 60.

[821] Recommended Decision, 12 FCC Rcd at 266. *See also* City of Chicago reply comments at 18.

[822] *See* AirTouch comments at 24-25.

VIII. SUPPORT FOR LOW-INCOME CONSUMERS

A. Overview

326. We agree with the Joint Board that the Commission's low-income programs, Lifeline Assistance ("Lifeline") and Lifeline Connection Assistance ("Link Up"), should be revised in order to achieve three primary goals. First, we adopt the Joint Board's recommendation that Lifeline service should be made available to low-income consumers nationwide, even in states that currently do not participate in Lifeline. To that end, we adopt the Joint Board's recommendations that Lifeline service should be provided to low-income consumers in every state, irrespective of whether the state provides matching funds, and that all eligible telecommunications carriers should be required to provide Lifeline service. We also agree with the Joint Board's recommendation to increase the federal Lifeline support amount, but condition such an increase on the state permitting its carriers to reduce intrastate charges paid by the end user.

327. Second, we adopt the Joint Board's recommendation to make the collection and distribution of support for Lifeline and Link Up competitively neutral. Therefore, we find that support for Lifeline and Link Up should be provided by contributions from all interstate telecommunications carriers, and all eligible telecommunications carriers should be permitted to receive support for offering Lifeline service to qualifying low-income customers or reduced service-connection charges through Link Up.

328. Third, as the Joint Board recommended, we conclude that Lifeline consumers should have the benefit of certain basic services and policies. We therefore find, as did the Joint Board, that Lifeline service should include: single-party service, voice grade access to the public switched telephone network (PSTN), DTMF or its functional digital equivalent, access to emergency services, access to operator services, access to interexchange service, access to directory assistance, and toll limitation. We also adopt the Joint Board's recommendation to prohibit disconnection of Lifeline service for non-payment of toll charges and service deposit requirements for customers who accept toll limitation.

B. Authority to Revise Lifeline and Link Up Programs

1. Background

329. Since 1985, the Commission, pursuant to its general authority under sections 1,[823] 4(i),[824] 201,[825] and 205[826] of the Act and in cooperation with state regulators and local

[823] The Commission's regulations should "make available, so far as possible, to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communications service with adequate facilities at reasonable charges." 47 U.S.C. § 151.

telephone companies, has administered two programs designed to increase subscribership by reducing charges to low-income consumers. The Commission's Lifeline program reduces qualifying consumers' monthly charges, and Link Up provides federal support to reduce eligible consumers' initial connection charges by up to one half.

330. Pursuant to its authority in sections 1, 4(i), 201, and 205, the Commission has amended Lifeline and Link Up on numerous occasions since 1985. In July 1995, the Commission issued an NPRM to review Lifeline and Link Up in light of its statutory mandate to make telecommunications service available to all Americans.[827] After passage of the 1996 Act, the Commission sought comment in this proceeding on the effect of the new legislation on its low-income programs.[828] The Commission noted in particular section 254(j),[829] which states that "[n]othing in [section 254] shall affect the collection, distribution, or administration of the Lifeline Assistance Program provided for by the Commission under regulations set forth in section 69.117 of Title 47, Code of Federal Regulations, and other related sections of such title."[830] The Commission asked if section 254(j) prevented it from making any changes in the Lifeline program.[831]

331. In its Recommended Decision, the Joint Board determined that section 254(j) could be reconciled with other portions of section 254 regarding competitive neutrality and support for low-income consumers in all regions of the nation.[832] The Joint Board found that Congress did not intend for section 254(j) to codify the existing Lifeline program, but that it intended to give the Joint Board and the Commission *permission* to leave the Lifeline program in place without modification, despite Lifeline's inconsistency with other portions of

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[824] "The Commission may perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this Act, as may be necessary in the execution of its functions." 47 U.S.C. § 154(i).

[825] 47 U.S.C. § 201 (Commission's general authority to regulate common carriers' rates and service offerings).

[826] 47 U.S.C. § 205.

[827] *See generally Subscribership Notice*, 10 FCC Rcd at 13003.

[828] NPRM at paras. 50-65.

[829] NPRM at para. 63.

[830] 47 U.S.C. § 254(j). Section 69.117 of the Commission's rules addresses the conditions and mechanisms for waiver of the subscriber line charge for Lifeline participants. 47 C.F.R. § 69.117.

[831] NPRM at paras. 63-65.

[832] Recommended Decision, 12 FCC Rcd at 283.

the 1996 Act. The Joint Board further concluded that it had the authority to recommend, and that the Commission has the authority to adopt, changes to the Lifeline program to make it more consistent with the 1996 Act.[833]

2. Discussion

332. We agree with the Joint Board that section 254(j) allows us to adopt certain changes to the Lifeline program in order to make it consistent with the goals of the 1996 Act.[834] We thus concur with the Joint Board's finding that Congress did not intend for section 254(j) to codify every detail of the existing Lifeline program, but that it intended to give the Joint Board and the Commission *permission* to leave the Lifeline program in place without modification, despite Lifeline's inconsistency with other portions of the 1996 Act.

333. Our authority to alter the existing low-income assistance programs must be understood in light of our general authority to preserve and advance universal service under section 254. As we describe in detail in section XIII.F below, we find that section 254 clarifies the scope of the Commission's universal service responsibilities in several fundamental respects. Most notably, universal service as defined by section 254 is both intrastate and interstate in nature. This feature of universal service is evident, for example, in the case of low-income support programs. Affordability of basic telephone service is necessary to ensure that low-income consumers have access not only to intrastate services but to interstate telecommunications as well.

334. Thus, as discussed in section XIII.F below, we agree with the Joint Board that state and federal governments have overlapping obligations to strengthen and advance universal service. We further conclude that section 254 grants us authority to ensure that states satisfy these obligations. That authority is reflected, among other places, in Congress's directive that the Commission ensure that support is "sufficient" to meet universal service obligations.[835] Although states also must ensure that their support mechanisms are "sufficient," they may only do so to the extent that such mechanisms are not "inconsistent with the Commission's rules to preserve and advance universal service."[836] Of course, in identifying a sufficient amount of Lifeline support, the Commission must consider support provided by state universal service programs.

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[833] Recommended Decision, 12 FCC Rcd at 284.

[834] Recommended Decision, 12 FCC Rcd at 283.

[835] 47 U.S.C. § 254(d).

[836] 47 U.S.C. § 254(f).

335. In fulfilling our responsibility to preserve and advance universal service, we find that the 1996 Act clarifies not only the scope of the Commission's authority, but also the specific nature of our obligations. With respect to the Lifeline and Link-Up programs, we observe that the Act evinces a renewed concern for the needs of low-income citizens. Thus, for the first time, Congress expresses the principle that rates should be "affordable," and that access should be provided to "low-income consumers" in all regions of the nation.[837] These principles strengthen and reinforce the Commission's preexisting interest in ensuring that telecommunications service is available "to all the people of the United States."[838] Under these directives, all consumers, including low-income consumers, are equally entitled to universal service as defined by this Commission under section 254(c)(1). Even prior to the passage of the 1996 Act, we expressed a desire to reexamine the effectiveness of low-income programs.[839] We find that the principles in section 254 that the Joint Board endorsed provide further impetus to undertake that review.

336. We thus adopt the recommendation of the Joint Board[840] to reject the view offered by some commenters[841] that section 254(j) prevents the Commission from making any change to the Lifeline program. As the Joint Board concluded, we find that Congress did not intend to codify the existing Lifeline program so as to immunize it from *any* future changes or improvements.[842] We therefore conclude, as did the Joint Board, that Congress intended in section 254(j) to permit the Commission to leave the Lifeline program in place, notwithstanding that the program may conflict with the pro-competitive provisions of the 1996 Act.[843]

337. Moreover, by its own terms, section 254(j) applies only to changes made pursuant to section 254 itself. Our authority to restrict, expand, or otherwise modify the Lifeline program through provisions other than section 254 has been well established over the past decade. In 1985, we created Lifeline under the general authority of sections 1, 4(i), 201, and 205 of the Act. Since then, we have relied on those provisions to modify the program on several occasions. Just months before the passage of the 1996 Act, we issued an NPRM

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[837] NPRM at para. 14.

[838] 47 U.S.C. § 151.

[839] *See generally Subscribership Notice*, 10 FCC Rcd at 13003.

[840] Recommended Decision, 12 FCC Rcd at 283-284.

[841] *See, e.g.,* Georgia PSC reply comments at 19; BellSouth comments at 18.

[842] Recommended Decision, 12 FCC Rcd at 283-284.

[843] Recommended Decision, 12 FCC Rcd at 283-284.

announcing our intention to re-examine whether "additional measures may now be necessary to carry out our statutory mandate of making universal service available to all Americans."[844] We must assume that Congress was aware of the Commission's authority under Titles I and II to amend Lifeline.[845] Consequently, we agree with the Joint Board that we retain the authority to revise the Lifeline program.

338. We also agree with the Joint Board that we are not barred from relying on the authority of section 254 itself when modifying the Lifeline program. Although section 254(j) provides that nothing in section 254 "shall affect" the Lifeline program, nonetheless, like the Joint Board, we do not believe that section 254(j) can reasonably be read to prevent us from changing Lifeline to bring it into conformity with the principles of section 254. Section 254 clearly gives the Commission independent statutory authority to establish federal mechanisms to provide universal service support to low-income consumers, and section 254(j) in no way can be read to usurp the Commission's authority under section 254 to establish such mechanisms. Were section 254 to be interpreted to prohibit us from revising our rules establishing the Lifeline program, we could, pursuant to section 254, establish new low-income universal service support mechanisms and then, acting pursuant to sections 1, 4(i), and 201, simply abolish the Lifeline program as duplicative. We do not believe that Congress drafted section 254(j) to require the Commission to elevate form over substance in this manner.

339. Like the Joint Board, we believe that a more plausible interpretation of section 254(j) exists. Section 254(j) indicates that Congress did not intend to require a change to the Lifeline program in adopting the new universal service principles. Presumably, Congress did not want to be viewed as *mandating* modifications to this worthy and popular program. Congress did not intend, however, to prevent the Commission from making changes to Lifeline that are sensible and clearly in the public interest. Thus, we agree with the Joint Board that it "has the authority to recommend, and the Commission has authority to adopt, changes to the Lifeline program to make it more consistent with Congress's mandates in section 254 if such changes would serve the public interest."[846]

340. In this section, we make changes to the Lifeline program that we believe are necessary, are in the public interest, and advance universal service. We emphasize that, in

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[844] *Subscribership Notice*, 10 FCC Rcd at 13004.

[845] *See Goodyear Atomic Corp v. Miller*, 486 U.S. 174, 184 (1988) (Congress is presumed to know the existing law pertinent to the legislation it enacts). *See also Fogerty v. Fantasy, Inc*., 510 U.S. 517, 114 S. Ct. 1023, 1030 (1994), *citing Lorillard v. Pons*, 434 U.S. 575, 580 (1978) (Congress is presumed to be aware of an administrative or judicial interpretation of a statute).

[846] Recommended Decision, 12 FCC Rcd at 284.

doing so, we are relying principally upon our preexisting authority under Titles I and II of the Communications Act (particularly sections 1, 4(i), 201, and 205). To the extent that we act on the basis of the principles of section 254(b), however, we rely on the authority of that section as well.

C. Changes to Structure of Lifeline and Link Up

1. Background

a. Lifeline

341. As noted in the NPRM, the Commission's Lifeline program currently reduces end-user charges that low-income consumers in participating jurisdictions pay for some state-specified level of local service that includes access to the PSTN and some local calling.[847] Support is provided in the form of a waiver of the federal SLC;[848] to participate, states are required to generate a matching reduction in intrastate end-user charges. States may choose to participate in either of two Lifeline Assistance plans. Under Plan 1,[849] a qualifying subscriber's monthly telephone bill is reduced through a waiver of one half of the $3.50 federal SLC. The customer's ILEC receives the waived amount from the Lifeline Assistance fund. The subscriber's bill is further reduced by state support that must match or exceed the federal contribution, which may be generated from any intrastate source.[850] Under Plan 2, which expands Plan 1 to provide for waiver of the entire residential SLC (up to the amount matched by the state), a subscriber's bill may be reduced by twice the SLC (or more, if the state more than matches the value of the federal waiver).[851] As with Plan 1, the state contribution may come from any intrastate source. Under either plan, qualifying subscribers may receive assistance for a single telephone line in their principal residence. NECA bills the interstate costs of both programs to IXCs with more than 0.05 percent of presubscribed

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[847] 47 C.F.R. § 69.104(j)-(l). Currently, 44 states (including the U.S. Virgin Islands and the District of Columbia) participate.

[848] The SLC, which is capped at $3.50, is assessed on subscribers as a way for ILECs to recover a portion of the subscriber loops costs assigned to the interstate jurisdiction. For a more detailed discussion of the SLC, *see infra* section XII.

[849] 47 C.F.R. § 69.104(j).

[850] Intrastate sources of funding include, for example, state assistance for basic local telephone service, connection charges, or customer service deposits. These intrastate matching contributions, along with the federal contribution, are disbursed to ILECs.

[851] 47 C.F.R. § 69.104(k).

lines.[852] While Plan 2 requires the verification of participating subscribers' qualifications, Plan 1 requires only that subscribers' qualifications be "subject to verification."[853] Of the 44 states participating in Lifeline, only California offers a Lifeline program under Plan 1.[854]

342. The Joint Board recommended expanding Lifeline to every state and requiring all eligible telecommunications carriers, as defined in section 214(e), to offer Lifeline service.[855] The Joint Board recommended that the Commission eliminate the state matching requirement and provide for an increased baseline level of federal support in the amount of $5.25 per primary residential connection, plus one half of any support generated from the intrastate jurisdiction, with federal support not to exceed $7.00 per primary residential connection.[856] To make Lifeline competitively neutral, the Joint Board recommended that the program be supported by a universal service support mechanism to which all telecommunications carriers that provide interstate telecommunications services contribute on an equitable and nondiscriminatory basis, with their contributions being a function of their revenues.[857] The Joint Board also recommended enabling all eligible telecommunications carriers, not just ILECs, to be eligible to receive support for providing Lifeline service.[858] With regard to customer qualification to receive Lifeline service, the Joint Board recommended that the Commission maintain the current framework for administering Lifeline qualification in states that provide matching support for Lifeline,[859] with the criteria to be based solely on income or factors directly related to income.[860] The Joint Board recommended that for states that choose not to match support from the intrastate jurisdiction, the Commission should adopt default means-tested qualification standards.[861]

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[852] 47 C.F.R. § 69.117.

[853] 47 C.F.R. § 69.104(j).

[854] Indus. Analysis Div., *FCC Monitoring Report May 1996 CC Docket No. 87-339* at tbl. 2.1 (1996) (*1996 Monitoring Report*). California allows subscribers to self-certify their eligibility to participate in the Lifeline program, which is only allowed under Plan 1.

[855] Recommended Decision, 12 FCC Rcd at 300.

[856] Recommended Decision, 12 FCC Rcd at 301.

[857] Recommended Decision, 12 FCC Rcd at 302.

[858] Recommended Decision, 12 FCC Rcd at 302.

[859] Recommended Decision, 12 FCC Rcd at 303.

[860] Recommended Decision, 12 FCC Rcd at 303.

[861] Recommended Decision, 12 FCC Rcd at 303.

343. Pursuant to the Joint Board's recommendation that state members of the Joint Board submit a report to the Commission on low-income issues prior to the Commission issuing its final Order,[862] the state members submitted their report on March 27, 1997.[863] The state Joint Board members assert that the Federal-State Joint Board on Universal Service should closely monitor the new low-income support programs to ensure effective implementation of our policy goals with regard to low-income consumers.[864]

b. Link Up

344. The Commission's existing Link Up program helps low-income subscribers initiate telephone service by paying half of the first $60.00 of installation charges.[865] Where an ILEC has a deferred payment plan, Link Up also will pay the interest on any balance up to $200.00, for up to one year.[866] To be eligible for this program, a subscriber must meet a state-established means test, and may not, unless over 60 years old, be another's dependent for federal income tax purposes.[867] Link Up currently is funded through an expense adjustment that allocates ILECs' Link Up costs to the interstate jurisdiction, effectively passing them on to IXCs.[868]

345. The Joint Board recommended that, in order to make the program competitively neutral, the Link Up funding mechanism should be removed from the jurisdictional separations rules and funded through contributions from all eligible interstate telecommunications carriers.[869] The Joint Board also recommended that the Commission amend its rules to eliminate the requirement that the commencement-of-service charges eligible for support be filed in a state tariff.[870] The Joint Board recommended[871] that the

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[862] Recommended Decision, 12 FCC Rcd at 301.

[863] State Members' Report on Low-Income Services, CC Docket No. 96-45 (Mar. 27, 1997) (*State Low-Income Report*).

[864] *State Low-Income Report* at 4-5.

[865] 47 C.F.R. § 36.711.

[866] 47 C.F.R. § 36.711(a)(2).

[867] 47 C.F.R. § 36.711(b).

[868] *See* 47 C.F.R. § 36.741.

[869] Recommended Decision, 12 FCC Rcd at 304.

[870] Recommended Decision, 12 FCC Rcd at 304.

present level of Link Up support remain the same.[872] The Joint Board further recommended that for customer qualification, the same modifications be made to Link Up as were recommended for Lifeline.[873] Additionally, the Joint Board recommended that the Commission prohibit states from restricting the number of service connections per year for which low-income consumers who relocate can receive Link Up support.[874]

2. Discussion

a. Expanding Lifeline Nationwide

346. We share the Joint Board's concern over the low subscribership levels among low-income consumers[875] and agree that changes in the current Lifeline program are warranted. Like the Joint Board, we are particularly concerned that two factors deter subscribership among low-income consumers. First, several states do not participate in the Lifeline program, and therefore low-income consumers in those regions do not have access to Lifeline.[876] Second, some low-income consumers in states that participate in the Lifeline program receive no assistance because not all carriers in those areas are obligated to offer Lifeline. We find that the unavailability of Lifeline to low-income consumers in these areas runs counter to our duty to "make available, so far as possible, to all the people of the United States . . . a rapid, efficient Nationwide . . . wire and radio communication service."[877] The unavailability of Lifeline to many low-income consumers also conflicts with the statutory principle that access to telecommunications services should be extended to "[c]onsumers in all regions of the Nation, including low-income consumers."[878] For these reasons, we revise the Lifeline program pursuant to our authority under sections 1, 4(i), 201, 205, and 254 to promote access to telecommunications service for all consumers.

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[871] Recommended Decision, 12 FCC Rcd at 304.

[872] That is, any eligible telecommunications carrier may receive support for providing Link Up if that carrier offers a reduction in the eligible customer's connection charge equal to one half of the carrier's customary connection charge or $30.00, whichever is less.

[873] Recommended Decision, 12 FCC Rcd at 304.

[874] Recommended Decision, 12 FCC Rcd at 304.

[875] Recommended Decision, 12 FCC Rcd at 299.

[876] The states without Lifeline programs are: the Commonwealth of the Northern Mariana Islands; Delaware; Guam; Indiana; Iowa; Kentucky; Louisiana; Nebraska; New Hampshire; New Jersey; and Puerto Rico.

[877] 47 U.S.C. § 151.

[878] 47 U.S.C. § 254(b)(3).

347. Carriers' Obligation to Offer Lifeline. We concur with the Joint Board's conclusion and reasoning that, to increase subscribership among low-income consumers, we should modify the Lifeline program so that qualifying low-income consumers can receive Lifeline service from all eligible telecommunications carriers.[879] Our determination arises from a concern that, in certain regions of the nation, carriers may not offer Lifeline service unless compelled to do so. In requiring all eligible telecommunications carriers to offer Lifeline service to qualifying low-income consumers, we make Lifeline part of our universal service support mechanisms. We emphasize, however, that in imposing this obligation, we are acting under our general authority in sections 1, 4(i), 201, and 205 of the Act, as well as our authority under section 254.

348. Expanding Lifeline to Every State and Modifying Matching Requirements. We also agree with the Joint Board that the Lifeline program should be amended so that qualifying low-income consumers throughout the nation can receive Lifeline service. Presently, only 44 states (including the District of Columbia and the U.S. Virgin Islands) participate in Lifeline.[880] Because the Lifeline program currently requires states to make a matching reduction in intrastate rates in order to qualify for the SLC waiver, a state's decision not to participate means that federal support will not be available in that state. We agree with the Joint Board that a baseline amount of federal support should be available in all states irrespective of whether the state generates support from the intrastate jurisdiction. We agree with the Joint Board, however, that state participation in Lifeline historically has been an important aspect of the program. As a result, we agree with the Joint Board that matching incentives should not be eliminated entirely. As discussed below and as the Joint Board recommended, we will provide a baseline federal support amount to qualifying low-income consumers in all states, with a matching component above the baseline level.

349. We recognize that the Joint Board, along with several commenters,[881] has expressed concern that eliminating the matching requirement might reduce states' incentives to provide intrastate support to reduce Lifeline rates further.[882] If that result were to occur, total Lifeline support in participating states might decrease below current levels. We have no reason to believe, however, that states will reduce their current support levels if we do not require state matching of federal support. Consequently, we fully expect that the support provided in states currently participating in Lifeline will continue at least at their present levels. We expect, however, that the Joint Board will continue to monitor this situation and

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[879] *See* Recommended Decision, 12 FCC Rcd at 300.

[880] *1996 Monitoring Report* at tbl. 2.1.

[881] *See, e.g.,* CPI comments at 4; NYNEX comments at 9.

[882] Recommended Decision, 12 FCC Rcd at 300.

recommend appropriate action if states do not provide adequate Lifeline support.

350. Lifeline Support Amount. The Further Comment Public Notice asked: (1) whether the new universal service support mechanisms should provide support for Lifeline in order to make the support technologically and competitively neutral; and (2) if so, whether the amount of the Lifeline support still should be tied to the amount of the SLC.[883] In determining the appropriate amount of support for Lifeline, the Joint Board indicated that it was uncertain whether a federal support amount equal to the level of the SLC (currently a maximum of $3.50), absent any state support, would be a sufficient baseline federal support amount. Although the Lifeline program currently provides federal support in the form of a SLC waiver (i.e., up to $3.50), that support must be matched by equal or greater reductions in intrastate rates. Thus, Lifeline customers currently receive overall reductions in their charges of $7.00 or more, depending upon state participation. Our revised Lifeline program, as recommended by the Joint Board, will be available in all states, irrespective of state participation. Thus, as the Joint Board noted, the baseline support must provide a sufficient level of support even in states that generate no support from the intrastate jurisdiction. The Joint Board therefore proposed a baseline amount of $5.25 in federal support, which is half-way between the current maximum federal support level of $3.50 and the $7.00 reduction in charges that a Lifeline customer would receive assuming full state matching.[884] In general, we believe that the record supports adopting the Joint Board's proposal. Furthermore, we note that a number of commenters, including parties with much knowledge about the needs of low-income consumers, such as state regulators, consumer advocates, and advocacy groups for the poor, support the Joint Board's proposal.[885] Sprint contends that an increased federal support amount is especially necessary as basic local service rates move closer to cost due to rate rebalancing, access charge reform, and changes in universal service policy.[886] While some commenters oppose increasing the support amount,[887] others advocate even greater increases

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[883] Further Comment Public Notice at Question 71.

[884] In the Recommended Decision Public Notice, the Commission asked whether the $5.25 baseline amount suggested in the Recommended Decision was likely to be adequate. The Commission further asked in the Public Notice how the FCC could avoid the unintended consequence that the increased federal support amount has no direct effect on Lifeline subscribers' rates in many populous states with Lifeline programs and instead results only in a larger percentage of the total support being generated from federal sources. *See* Recommended Decision Public Notice at 1.

[885] *See, e.g.,* Catholic Conference comments at 9; DC OPC comments at 2-3; Florida PSC comments at 2; Kansas CC comments at 2-3; NASUCA comments at 11; NCTA comments at 16; NYNEX comments at 9; Washington UTC comments at 10.

[886] Sprint reply comments at 6-7.

[887] *See, e.g.,* AT&T comments at 16; BellSouth comments at 18; Fred Williamson comments at 4; MCI comments at 13-14; MFS comments at 29; SBC comments at 7-8.

in support. We therefore conclude that the $5.25 amount represents a sound compromise and a pragmatic balancing of the goals of extending Lifeline to states that currently do not participate and maintaining incentives for states to provide matching funds.

351. We adopt the Joint Board's recommendation regarding federal Lifeline support amounts in virtually all respects. Lifeline consumers will continue to receive the $3.50 in federal support that is currently available. Further, as the Joint Board recommended, we will provide for additional federal support in the amount of $1.75 above the current $3.50 level. For Lifeline consumers in a given state to receive the additional $1.75 in federal support, that state need only approve the reduction in the portion of the intrastate rate paid by the end user; no state matching is required. The requirement of state consent before we make available federal Lifeline support in excess of the federal SLC is consistent with our overall deference to the states in areas of traditional state expertise and authority.[888] This approach is consistent with the Joint Board's recommendation because it raises to $5.25 the level of federal Lifeline support that is available even if the state generates no support from the intrastate jurisdiction. Because the states need not provide matching funds to receive this amount, but only approve the reduction of $1.75 in the portion of the intrastate rate that is paid by the end user, we believe that the states will participate in this aspect of the program.

352. We also adopt the Joint Board's recommendation that we "provide for additional federal support equal to one half of any support generated from the intrastate jurisdiction, up to a maximum of $7.00 in federal support."[889] Thus, if a state provides the minimum amount of matching support to receive the full federal support amount, the total reduction in end user charges would increase from $7.00 under the current system to $10.50.[890] We believe that this increase in total support will affect positively the low subscribership levels among low-income consumers that concerned the Joint Board. As with the $1.75 in federal support above $3.50, states will have to approve this reduction in intrastate rates provided by the additional federal support amount.

353. We conclude that our approach accomplishes the Joint Board's goals of increasing subscribership and maximizing matching incentives. We conclude that providing Lifeline support in all states, irrespective of state participation, will help increase

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[888] *See* 47 U.S.C. § 152(b). For example, the Link Up program currently provides federal support to reduce state-tariffed connection charges, and operates by allocating carriers' expenses in providing the reduced charges to the interstate jurisdiction. *See* 47 C.F.R. §§ 67.701, 67.711. *But see* BellSouth comments at 18 (arguing that a federal Lifeline support amount in excess of the SLC would constitute an improper infringement on state ratemaking authority).

[889] Recommended Decision, 12 FCC Rcd at 301.

[890] We acknowledge that a number of states currently generate intrastate support that exceeds the $3.50 federal SLC waiver.

subscribership in those states that presently do not participate in the Lifeline program. At the same time, we conclude that our additional support offers states an incentive to generate intrastate support to receive the additional $1.75 (over $5.25) in federal support and thus will increase support in many states. We have no reason to conclude that states will not participate in the modified Lifeline program.[891] The 1996 Act embraces the principle that universal service should be provided to all Americans at affordable rates, and we believe that states will respond to meet this goal. The 1996 Act envisions a federal-state partnership in preserving and advancing universal service.[892] Thus, we conclude that it is important for states to retain a role in assessing and responding to low subscribership levels. Moreover, states may have greater familiarity than we with income levels, demographic patterns, and factors affecting low-income subscribership. We also recognize that many states are in the process of determining their spending priorities for universal service. Until these procedures are completed, we will continue to evaluate our Lifeline program and to look to the Joint Board for guidance.

354. A few parties suggest that the Commission should not offer additional federal support in currently participating states that, in response to the availability of additional federal support, reduce their matching contribution below existing levels.[893] According to these commenters, the provision of additional federal support will give currently participating states an incentive to reduce their present levels of support. We agree with Oregon PUC,[894] however, that we should not penalize qualifying low-income consumers based on the actions taken by the state in which they live. While Lifeline customers will receive varying support amounts depending on how much support their state provides, we believe that all low-income consumers throughout the country should have the opportunity to receive the same minimum federal support amount. For this same reason, we reject Kansas CC's proposal to condition the entire amount of federal support on state participation.[895]

355. CPI asserts that providing additional federal support in states such as New York, which has a Lifeline rate of $1.00, could cause the Lifeline rate to drop below zero (to negative $0.75).[896] Similarly, MCI opposes the provision of additional federal support

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[891] Under our new plan, low-income consumers will receive the full $10.50 in support if their state provides $3.50 in intrastate support, as now occurs in 44 jurisdictions.

[892] *See* 47 U.S.C. §§ 254(b)(5), 254(f).

[893] *See, e.g.*, CPI comments at 4; NYNEX comments at 9; SBC reply comments at 14.

[894] Oregon PUC comments at 4.

[895] Kansas CC comments at 3-4.

[896] CPI comments at 3.

because, it reasons, $5.25 in federal support would be greater than some states' Lifeline rates of between $3.00 and $10.00.[897] We conclude that the federal support amount in no case should exceed the Lifeline rate.

356. MCI also asserts that, rather than offering additional federal support in order to provide residents of non-participating states with a sufficient level of assistance, the Commission should offer additional federal support only in states without Lifeline programs.[898] We conclude, however, that MCI's proposal effectively would penalize states that do generate Lifeline funds. The Commission seeks to encourage states to generate Lifeline support; providing additional federal support in only states that do not participate would create incentives for currently participating states to cease providing matching funds and discourage currently non-participating states from beginning.

357. Some commenters express concern,[899] as did the Joint Board, that offering additional federal support may have no direct effect on Lifeline subscribers' rates in many populous states with established Lifeline programs and instead may result only in shifting the burden of supporting low-income consumers from the state to the federal jurisdiction. We recognize that offering additional federal support may shift the burden of supporting Lifeline consumers to the federal jurisdiction. The Commission could avoid this result by not offering additional federal support in states that currently participate; we do not wish, however, to penalize states that have implemented Lifeline programs or to penalize low-income consumers based on the state in which they live.

358. A number of commenters assert that the Commission should not offer additional federal Lifeline support absent evidence that such additional support would increase subscribership levels among low-income consumers.[900] Some of these parties contend that the main reason low-income consumers lose access to telecommunications services is not because local telephone service is unaffordable, but rather because they have not paid their toll bills. While we agree, as discussed below, that some low-income consumers may lose access to telecommunications services because they did not pay their toll charges, we also conclude that the existing Lifeline program has generally made telephone service more affordable for low-income consumers. In a recently released report on telephone subscribership, we found that although subscribership rates are comparable in states with and without Lifeline programs, increases in subscribership among low-income households have been greater on average in

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[897] MCI comments at 14.

[898] MCI comments at 13-14.

[899] *See, e.g.,* California PUC comments at 10; Citizens Utilities comments at 19.

[900] *See, e.g.,* AT&T comments at 15; Centennial comments at 11-12; Georgia PSC comments at 17.

states with Lifeline programs than in states without Lifeline programs over the last 10 years.[901] The report found that the overall subscribership rate for states with Lifeline increased by 2.5 percent, while, in states without Lifeline, subscribership increased by only 0.5 percent. For households with incomes under $10,000 (expressed in 1984 dollars), which would comprise the households primarily affected by Lifeline, the average increase in subscribership was 6.4 percent in states with Lifeline compared to 2.2 percent in states without Lifeline. These data suggest that the Lifeline program appears to help increase and sustain subscribership levels, despite the study's showing that subscribership rates among low-income consumers in states without Lifeline are similar to those in states with Lifeline. Furthermore, the fact that 44 states (including the District of Columbia and the U.S. Virgin Islands) currently generate intrastate support to participate in Lifeline demonstrates that most states find that Lifeline is an effective program.

359. Some commenters express concern that the Joint Board's proposed expansion of Lifeline would increase the size of the federal support mechanisms excessively.[902] We observe, however, that even with their expansion to the states currently not participating, Lifeline and Link Up will continue to account for a relatively small percentage of total universal service funding.[903] Lifeline and Link Up are narrowly targeted, explicit, and important for maintaining and increasing subscribership in a competitive marketplace. We agree with Washington UTC[904] that the $7.00 per-person cap on federal Lifeline support will guard against an excessive burden on federal support mechanisms. We therefore decline to

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[901] *See* Telephone Penetration by Income by State, Common Carrier Bureau, FCC, mimeo 72418 (rel. Feb. 24, 1997).

[902] *See, e.g.,* New York DPS comments at 14-15; USTA comments at 33; Georgia PSC reply comments at 17.

[903] Currently, approximately 4.4 million consumers participate in Lifeline, and the size of the Lifeline fund is approximately $137 million. By expanding Lifeline to states currently not participating in Lifeline and assuming full participation by all Medicaid participants in those states (the largest low-income assistance program on which we are basing Lifeline qualification, as discussed *infra*), we estimate that the number of Lifeline consumers could increase by approximately 1.9 million. This, in addition to the increased federal support amount, could result in an approximately $489.3 million Lifeline support mechanism (assuming that states currently providing matching funds continue to provide matching support, and that all state commissions approve the maximum federal support amount). The Link Up support mechanism will remain at $18.4 million if there is no change in consumer participation and assuming consumers receive only one reduced service connection charge per year (although, as discussed *infra*, they will be permitted to receive more than one reduced connection charge). For each consumer receiving an additional reduced connection charge, the size of the federal funding mechanisms will increase by $30.00. If California, the only state currently not participating in Link Up, begins to participate, the Link Up funding mechanism will increase to approximately $23.6 million. Thus, the new Lifeline and Link Up support mechanisms could amount to approximately $512.9 million of support from the interstate jurisdiction.

[904] Washington UTC comments at 12.

adopt Citizens Utilities' suggestion[905] that, in all cases, Lifeline subscribers should receive only $3.50 in federal support, supplemented by an additional $1.75 for every $1.75 provided by the state, because we find that $3.50 is insufficient support for Lifeline customers residing in states that choose not to provide matching support.

360. We reject commenters' arguments that the federal Lifeline support amount should vary according to state-specific circumstances, such as telephone rates, economic status, and demographics.[906] CPI, for example, proposes setting the federal support amount at one half of the national average rate or one half of the area's prevailing rate for the designated services, whichever is lower.[907] CPI uses a current national average rate of approximately $18.00 to conclude that the resulting maximum Lifeline rate, and the federal support amount, would be $9.00. As CPI acknowledges, its recommendation would result in a federal support amount that greatly exceeds $5.25.[908] We conclude that setting the federal support at $9.00 for each low-income subscriber would increase the size of the Lifeline support mechanisms more than necessary to achieve our goal of assuring an adequate level of support nationwide. Moreover, we note that the proposal we adopt today actually results in a combination of state and federal funding of $10.50 per consumer, if the state provides funding sufficient to generate the maximum amount of federal support, rather than the $9.00 in support that CPI suggests. Further, we decline to adopt a proposal in which the federal support amount would vary by state, because this variation could make the size of the universal service support mechanisms unpredictable and the program difficult to administer.[909] Additionally, CPI's proposal would not entail significant state involvement in determining and achieving affordable rates for low-income consumers. As for commenters concerned about the amount of support for low-income individuals living in high cost areas,[910] we are confident that the support mechanisms we adopt today for high cost, rural, and insular areas, combined with Lifeline, will achieve sufficient assistance for low-income consumers in high cost areas.

361. The Joint Board observed that many states currently generate their matching

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[905] Citizens Utilities comments at 19-20.

[906] *See, e.g.,* CPI comments at 2-4; Puerto Rico Tel. Co. comments at 15; South Carolina comments at 14-15; Vermont PSB comments at 11; Wyoming PSC comments at 10.

[907] CPI comments at 2-4.

[908] CPI comments at 1-2.

[909] As discussed *supra*, however, the federal baseline support amount would be reduced in states in which providing the full support amount would result in Lifeline rates below zero.

[910] *See, e.g.,* Vermont PSB comments at 12; Wyoming PSC comments at 10.

funds through the state rate-regulation process.[911] These states allow incumbent LECs to recover the revenue the carriers lose from charging Lifeline customers less by charging other subscribers more. Florida PSC points out that this method of generating Lifeline support from the intrastate jurisdiction could result in some carriers (i.e., ILECs) bearing an unreasonable share of the program's costs.[912] We see no reason at this time to intrude in the first instance on states' decisions about how to generate intrastate support for Lifeline. We do not currently prescribe the methods states must use to generate intrastate Lifeline support, nor does this Order contain any such prescriptions. Many methods exist, including competitively neutral surcharges on all carriers or the use of general revenues, that would not place the burden on any single group of carriers. We note, however, that states must meet the requirements of section 254(e) in providing equitable and non-discriminatory support for state universal service support mechanisms.

362. We also conclude that we must seek further guidance from the Joint Board on how to ensure the integrity of the Lifeline program in light of changes we make today to our access charge rules. In the *Access Charge Reform Order*, as part of our effort to implement the Joint Board's suggestion that the current per-minute CCL charge be modified to reflect the non-traffic sensitive nature of loop costs, we implement a flat charge per primary residential line that is to be assessed against the PIC. If the customer does not select a PIC, however, the presubscribed interexchange carrier charge (PICC) will be assessed against the end user.[913]

363. We wish to ensure that these changes to our Part 69 rules, which were not contemplated when the Joint Board made its recommendations,[914] will not have an adverse impact on Lifeline customers. Specifically, we are concerned that the PICC may be assessed against Lifeline customers who elect to receive toll blocking (for which federal support will now be provided) because they will have no PIC associated with their lines. Accordingly, we seek further guidance from the Joint Board on how to maintain the integrity of the Lifeline program and ensure competitive neutrality in light of these changes to our Part 69 rules.

b. Making Lifeline Competitively Neutral

364. Section 254(b)(7) gives the Joint Board and Commission the authority to adopt

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[911] Recommended Decision, 12 FCC Rcd at 302.

[912] Florida PSC comments at 6.

[913] *See Access Charge Reform Order* at § III.A.3.

[914] We initiated our access charge reform proceeding on December 24, 1997. *See Access Charge Reform NPRM.*

additional principles upon which to base the preservation and advancement of universal service. In this Order, we endorse the Joint Board's recommendation that we adopt the principle of "competitive neutrality" and conclude that universal service support mechanisms and rules should not unfairly advantage one provider, nor favor one technology.[915] Consistent with this principle, we agree with the Joint Board[916] that the funding mechanisms for Lifeline should be made more competitively neutral. Like the Joint Board, we find no statutory justification for continuing to fund the federal Lifeline program through charges levied only on some IXCs.[917] As required by section 254, all carriers that provide interstate telecommunications service now will contribute on an equitable and nondiscriminatory basis. Thus, for example, LECs, wireless carriers, and other interstate telecommunications service providers will contribute.[918] In response to the NPRM, several commenters oppose changing the current contribution mechanisms because the current programs are specifically targeted to individual subscribers.[919] We conclude, however, as do many commenters,[920] that the new funding mechanisms recommended by the Joint Board will be more competitively neutral than the current system, which passes the entire federal burden of low-income support to IXCs, without sacrificing the targeting that has characterized the current program. We also conclude that low-income consumers will continue to benefit directly under these funding mechanisms.

365. In addition, we concur with the Joint Board's recommendation that all eligible telecommunications carriers, not just ILECs, should be able to receive support for serving qualifying low-income consumers.[921] Currently, only ILECs, which charge SLCs and waive such charges for low-income consumers, can receive support under most circumstances.[922] We find, however, that eligible telecommunications carriers other than ILECs also should

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[915] *See supra* Section II.

[916] Recommended Decision, 12 FCC Rcd at 302.

[917] Recommended Decision, 12 FCC Rcd at 302.

[918] *See* section XIII (Administration), *infra*, for a complete discussion of the telecommunications providers that must contribute to the universal service support mechanisms.

[919] *See, e.g.*, PacTel NPRM further comments at 59; SNET NPRM further comments at 7.

[920] *See, e.g.*, AT&T comments at 15; California PUC comments at 10; MCI comments at 12; New York DPS comments at 13-14; North Dakota PSC comments at 2; Ohio PUC comments at 13; Sprint comments at 4; Washington UTC comments at 11; WorldCom comments at 22-23.

[921] Recommended Decision, 12 FCC Rcd at 302.

[922] Since the passage of the 1996 Act, the Commission's Common Carrier Bureau has certified some CLECs to offer Lifeline. Generally, these carriers have been required to stipulate to requirements that mirror those imposed on ILECs, including that the CLEC charge a federal SLC.

have the opportunity to compete to offer Lifeline service to low-income consumers and in turn receive support in a manner similar to the current program. Support will be provided directly to carriers under administrative procedures determined by the universal service administrator in direct consultation with the Commission.

366. We acknowledge that the distribution of support to non-ILEC carriers cannot be achieved simply by waiving the SLC. Carriers other than ILECs do not participate in the formal separations process that our rules mandate for ILECs and hence do not charge SLCs nor distinguish between the interstate and intrastate portion of their charges and costs. With respect to these carriers, we conclude that Lifeline support must be passed through directly to the consumer in the form of a reduction in the total amount due. Indeed, sections 254(e) and (k) require eligible telecommunications carriers to pass through Lifeline support directly to consumers.[923] Furthermore, we do not believe that requiring carriers to pass through the support amount conflicts with our desire to establish mechanisms that are respectful of traditional state authority. Rather, we note that a portion of every carrier's charge can be attributed to the interstate jurisdiction, whether or not the carrier formally participates in the separations procedure. We could, of course, calculate the precise amount of the interstate portion by requiring all carriers seeking to offer Lifeline service to stipulate to regulatory and rate-structure requirements that would not otherwise apply to them, such as a requirement to charge a federal SLC. Given the deregulatory objectives of the 1996 Act, however, we do not wish to impose regulations on carriers that would not, because of their comparative lack of market power, otherwise be subject to them. In any event, we find such a step to be unnecessary.

367. The interstate portion of ILECs' rates to recover loop costs is, almost without exception, greater than the amount of the SLC cap for residential subscribers; we are therefore confident that this amount is a reasonable proxy for the interstate portion of other eligible telecommunications carriers' costs. Thus, we conclude that we may require an amount equal to the SLC cap for primary residential and single-line business connections to be deducted from carriers' end-user charges without infringing on state ratemaking authority. Furthermore, we find that providing the same amount of Lifeline support to all eligible telecommunications carriers, including those that do not charge SLCs, advances competitive neutrality. In sum, we conclude that breaking the link between Lifeline and the Commission's Part 69 rules will promote competitive neutrality by allowing eligible carriers that are not required to charge SLCs, such as CLECs and wireless providers, to receive federal support for providing Lifeline. We therefore reject BellSouth's argument that the Lifeline program should continue

[923] *See* 47 U.S.C. §§ 254(e) ("A carrier that receives [universal service] support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended.") and 254(k) ("A telecommunications carrier may not use services that are not competitive to subsidize services that are subject to competition.")

to operate exclusively as a SLC waiver.[924]

368. The precise mechanisms for distributing and collecting Lifeline funds will be determined by the universal service administrator in direct consultation with the Commission. In general, however, any carrier seeking to receive Lifeline support will be required to demonstrate to the public utility commission of the state in which it operates that it offers Lifeline service in compliance with the rules we adopt today. These rules require that carriers offer qualified low-income consumers the services that must be included within Lifeline service, as discussed more fully below, including toll-limitation service. ILECs providing Lifeline service will be required to waive Lifeline customers' federal SLCs and, conditioned on state approval, to pass through to Lifeline consumers an additional $1.75 in federal support. ILECs will then receive a corresponding amount of support from the new support mechanisms. Other eligible telecommunications carriers will receive, for each qualifying low-income consumer served, support equal to the federal SLC cap for primary residential and single-line business connections, plus $1.75 in additional federal support conditioned on state approval. The federal support amount must be passed through to the consumer in its entirety. In addition, all carriers providing Lifeline service will be reimbursed from the new universal service support mechanisms for their incremental cost of providing toll-limitation services to Lifeline customers who elect to receive them. The remaining services included in Lifeline[925] must be provided to qualifying low-income consumers at the carrier's lowest tariffed (or otherwise generally available) rate for those services, or at the state's mandated Lifeline rate, if the state mandates such a rate for low-income consumers.[926]

369. California PUC argues that all carriers, not just eligible telecommunications carriers, should be able to participate in Lifeline.[927] We believe that we have the authority under sections 1, 4(i), 201, 205, and 254 to extend Lifeline to include carriers other than eligible telecommunications carriers. We agree with the Joint Board, however, and decline to do so at the present time. Elsewhere in this Order, we express our intention to incorporate Lifeline into our broader universal service mechanisms adopted in this proceeding. We believe that a single support mechanism with a single administrator following similar rules will have significant advantages in terms of administrative convenience and efficiency. Furthermore, in deciding which carriers may participate in Lifeline, we note that section 254(e) allows universal service support to be provided only to carriers deemed eligible

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[924] BellSouth comments at 18.

[925] The services that must be included in Lifeline are discussed *infra* in section VIII.D.

[926] If the state-mandated Lifeline rate does not reflect a reduction in a CLEC's rate equal to the applicable federal support amount, the federal support amount will be reduced accordingly to avoid double recovery.

[927] California PUC comments at 12.

pursuant to section 214(e).

370. We further observe that, contrary to the fears of some commenters,[928] a large class of carriers that will not be eligible to receive universal service support -- those providing service purely by reselling another carrier's services purchased on a wholesale basis pursuant to section 251(c)(4) -- will nevertheless be able to offer Lifeline service. The *Local Competition Order* provides that all retail services, including below-cost and residential services, are subject to wholesale rate obligations under section 251(c)(4).[929] Resellers therefore could obtain Lifeline service at wholesale rates that include the Lifeline support amounts and can pass these discounts through to qualifying low-income consumers.[930] We are hopeful that states will take the steps required to ensure that low-income consumers can receive Lifeline service from resellers. Further, we find that we can rely on the states to ensure that at least one eligible telecommunications carrier is certified in all areas.[931] As a result, low-income consumers always will have access to a Lifeline program from at least one carrier. We will reassess this approach in the future if it appears that the revised Lifeline program is not being made available to low-income consumers nationwide.

371. WinStar contends that it would not be competitively neutral for the Commission to deny Lifeline support to wireless providers that are technologically unable to provide Lifeline to certain customers or areas.[932] WinStar suggests that because of its 38 GHz technology, for example, it would be unable to reach low-income consumers whose access to its network is blocked by buildings or other obstructions. Under the 1996 Act, the only carriers eligible to receive universal service support are those that provide service throughout a geographic service area.[933] Just as the Joint Board urged states to define reasonably small service areas, in part to avoid precluding competition from carriers with limited geographic scope, we also urge states to define service areas[934] in a way that will promote competitive

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[928] *See, e.g.,* California PUC comments at 12; TURN comments at 6; California Dept. of Consumer Affairs reply comments at 5.

[929] *See Local Competition Order,* 11 FCC Rcd at 15723-15724. Although the *Local Competition Order's* pricing provisions and "pick and choose" rule have been stayed by the 8th Circuit, its resale rules remain valid.

[930] As discussed in the *Local Competition Order,* however, section 251(c)(4)(B) allows states to prohibit the resale of Lifeline or any other means-tested service to end users not eligible to subscribe to such services. *See Local Competition Order,* 11 FCC Rcd at 15724.

[931] *See* 47 U.S.C. § 214(e)(3).

[932] WinStar comments at 4, 12-13.

[933] *See* 47 U.S.C. § 214(e)(2).

[934] *See* 47 U.S.C. § 214(e)(1).

neutrality by allowing carriers, such as WinStar, to serve some high cost consumers efficiently.

372. We agree with the Joint Board that a voucher system, as proposed by some commenters in response to the NPRM, would be administratively burdensome.[935] Under this proposal, Lifeline consumers would receive the Lifeline support amount in the form of a voucher that could be used with the eligible telecommunications provider of their choice. As discussed above, however, Lifeline support will be provided directly to carriers that offer Lifeline service to qualifying low-income consumers.

c. Consumer Qualifications for Lifeline

373. We agree with the Joint Board that the Commission should maintain this basic framework for administering Lifeline qualification in states that provide intrastate support for the Lifeline program.[936] State agencies or telephone companies currently determine consumer qualifications for Lifeline pursuant to standards set by narrowly targeted programs approved by the Commission.[937] We believe such criteria leave states sufficient flexibility to target support based on that state's particular needs and circumstances. We also concur with the Joint Board's recommendation[938] that the Commission require states that provide intrastate matching funds to base eligibility criteria solely on income or factors directly related to income (such as participation in a low-income assistance program). Currently, some states only make Lifeline assistance available to low-income individuals who, for example, are elderly or have disabilities.[939] We agree with the Joint Board's finding that the goal of increasing low-income subscribership will best be met if the qualifications to receive Lifeline assistance are based solely on income or factors directly related to income.

374. We also adopt the Joint Board's recommendation[940] that the Commission apply a specific means-tested eligibility standard, such as participation in a low-income assistance program, in states that choose not to provide matching support from the intrastate jurisdiction.

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[935] Recommended Decision, 12 FCC Rcd at 303.

[936] Recommended Decision, 12 FCC Rcd at 303.

[937] *See* 47 C.F.R. § 69.104(j)-(k).

[938] Recommended Decision, 12 FCC Rcd at 303.

[939] Recommended Decision, 12 FCC Rcd at 303.

[940] Recommended Decision, 12 FCC Rcd at 303.

Specifically, we find, as suggested in part by Benton and Edgemont,[941] that the default Lifeline eligibility standard in non-participating states will be participation in Medicaid, food stamps, Supplementary Security Income (SSI), federal public housing assistance or Section 8,[942] or Low Income Home Energy Assistance Program (LIHEAP). While Benton and Edgemont suggest that Lifeline eligibility be based on participation in one of these programs by *any* member of a household, we find that, in the interest of administrative ease and avoiding fraud, waste, and abuse, the named subscriber to the local telecommunications service must participate in one of these assistance programs to qualify for Lifeline. We specifically decline to base eligibility solely on a program, such as Aid to Families with Dependent Children (AFDC), that will be altered significantly by the recently-enacted welfare reform law,[943] as Catholic Conference observes.[944] Because we agree with the Joint Board, however, that individuals who are eligible for assistance from low-income assistance programs also should be eligible for Lifeline, participation in at least one of the programs mentioned above shall be the federal eligibility standard applied in states that do not participate in Lifeline. We conclude that basing Lifeline eligibility on participation in any of these low-income assistance programs will achieve our goal of wide Lifeline participation by low-income consumers, because the eligibility criteria for several of these programs vary. Therefore, basing Lifeline eligibility on participation in any of these programs will reach more low-income consumers than basing Lifeline eligibility solely on one of the programs. We further conclude that if participation in Medicaid, food stamps, SSI, public housing assistance or Section 8, or LIHEAP becomes an unworkable standard, as evidenced, for instance, by a disproportionately low number of Lifeline consumers in states where such a standard is used, the Commission shall revise the standard.

375. Catholic Conference is concerned that, if "eligibility for Lifeline [is] contingent upon participation in low-income assistance programs," as it contends the Joint Board recommended, this standard would reduce significantly the number of consumers qualifying for Lifeline because of the newly enacted federal welfare reform law.[945] We clarify, however, that the Joint Board's recommendation, which we adopt, requires states to base eligibility on income or factors directly related to income and merely *suggests* using participation in a low-

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[941] Letter from Ellis Jacobs, Edgemont, and Kevin Taglang, Benton, to William F. Caton, FCC, dated February 21, 1997 (Benton and Edgemont Feb. 21 *ex parte).*

[942] Section 8 is a federal housing assistance program administered by the Department of Housing and Urban Development.

[943] The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, Pub. L. 104-193 (1996).

[944] Catholic Conference comments at 9-10.

[945] Catholic Conference comments at 9-10.

income assistance program as the criterion.[946] Thus, states may choose their eligibility criteria as long as those criteria measure income or factors directly related to income. We have no reason to conclude, at this time, that states will not take the required steps to reconcile Lifeline qualification with changes in welfare laws. As discussed above, we have tied the default Lifeline qualification standards (which will apply in states that do not provide intrastate funds) to programs that commenters believe to be unaffected or minimally affected by the new welfare legislation. We will, however, continue to monitor the situation and may make further changes in the future if it appears that changes to other programs unduly limit Lifeline eligibility.

376. Although we could require, pursuant to our Title II authority, that Lifeline customers' qualifications be verified,[947] we conclude that we should delay implementing the Joint Board's recommendation to require such verification, because the history of federal-state comity in administering the Lifeline program justifies allowing states to determine whether to verify eligibility. We agree with the Universal Service Alliance[948] that states providing matching intrastate Lifeline support should continue to have the discretion to determine the appropriateness of verification of Lifeline customers' qualification for the program. Because these states are generating support from the intrastate jurisdiction, they have an incentive to control fraud, waste, and abuse of the support mechanism. California, for example, allows customers to self-certify their eligibility for Lifeline because studies indicate that the cost of verifying eligibility would exceed losses resulting from fraud and abuse.[949] Because states that are generating matching intrastate support have a strong interest in controlling the size of the support mechanism, we do not find at this time that imposing stricter federal verification requirements is necessary to ensure that the size of the support mechanisms remains at reasonable levels.[950] We will revisit this conclusion, however, to ensure the sustainability and predictability of the sizing of the support mechanisms. In light of these conclusions, we find it no longer necessary to reduce the level of Lifeline support in states that choose not to

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[946] Recommended Decision, 12 FCC Rcd at 303.

[947] Indeed, we currently require such verification as a condition for receiving a waiver of the entire SLC (as opposed to merely half). *See* 47 C.F.R. § 69.104(j)-(*l*).

[948] Universal Service Alliance comments at 14.

[949] Letter from Jack Leutza, California Public Utilities Commission, to William F. Caton, FCC, dated January 28, 1997 (California PUC January 28 *ex parte*). We observe that the California PUC recently directed its staff to consider a verification program if doing so would substantially increase the amount of federal funding received. *See* California PUC comments at 11. *See also* Rulemaking on the Commission's Own Motion into Universal Service and to Comply with the Mandates of Assembly Bill 3643, *Order* 96-10-066 (Cal. PUC Oct. 25, 1996) at 236-37.

[950] AT&T comments at 17. *See also* USTA comments at 33 (arguing that the Commission should prohibit states from allowing customer self-certification.)

require that consumer qualification be verified. California PUC urges continuation of this two-tiered structure, but only as an alternative to a verification requirement based on 150% of the poverty line.[951]

377. With respect to verification in states in which the federal default qualification criteria apply, we will require carriers to obtain customers' signatures on a document certifying under penalty of perjury that the customer is receiving benefits from one of the programs included in the default standard,[952] identifying the program or programs from which the customer receives benefits, and agreeing to notify the carrier if the customer ceases to participate in such program or programs.

378. Although we generally defer to the states to establish Lifeline eligibility criteria, we encourage states to adopt Lifeline administrative procedures, including eligibility verification procedures, that are as efficient as possible. We observe, for example, that New York, among other states, has substantially cut Lifeline overhead by mandating the exchange of computer files between social service agencies, which administer participation in the other public assistance programs that constitute Lifeline eligibility, and the state's LECs.[953] Thus, Lifeline enrollment in New York is automatic. As CPI suggests, automatic enrollment might further justify the increased federal support amount, because more low-income consumers would benefit from Lifeline.[954] We note also that automatic enrollment could comport with competitive neutrality if all eligible telecommunications providers can have access to the same information indicating which consumers are eligible for Lifeline. We conclude that the public interest is best served by minimizing overhead expenses, and encourage state innovation in this area to better serve low-income consumers.

d. Link Up

379. We agree with the Joint Board[955] that the Link Up funding mechanisms should be removed from the jurisdictional separations rules and that the program should be funded through equitable and non-discriminatory contributions from all interstate telecommunications

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[951] California PUC comments at 13.

[952] As discussed *supra*, the default Lifeline eligibility criteria apply in states that choose to have no intrastate support for Lifeline. The default criteria are participation in Medicaid, food stamps, SSI, federal public housing assistance or Section 8, or LIHEAP.

[953] New York DPS January 28 *ex parte* at 1.

[954] CPI comments at 4, n.3.

[955] Recommended Decision, 12 FCC Rcd at 304.

carriers.[956] Funding the program through contributions from all interstate carriers will allow for explicit and competitively neutral support mechanisms. Commenters addressing this point generally agree with this approach.[957]

380. We also adopt the Joint Board's recommendation[958] that we amend our Link Up program so that any eligible telecommunications carrier may draw support from the new Link Up support mechanism if that carrier offers to qualifying low-income consumers a reduction of its service connection charges equal to one half of the carrier's customary connection charge or $30.00, whichever is less.[959] Support shall be available only for the primary residential connection.[960] When the carrier offers eligible customers a deferred payment plan for connection charges, we agree with the Joint Board that we should preserve the current rule providing support to reimburse carriers for waiving interest on the deferred charges. In the absence of evidence that increasing the level of Link Up support for connecting each eligible customer would significantly promote universal service goals, we will maintain the present level of support for Link Up, as the Joint Board recommended.[961] To ensure that the opportunity for carrier participation is competitively neutral, we adopt the Joint Board's recommendation[962] to eliminate the requirement that the commencement-of-service charges eligible for support be filed in a state tariff.[963]

381. For the sake of administrative simplicity, we revise our rules to require that the same qualification requirements that apply to Lifeline in each state, including its verification standards, also shall apply to Link Up in that state. This step will advance administrative simplicity while states assess their approaches to universal service and while we seek further recommendations from the Joint Board.[964] We further observe that this rule will change nothing in the majority of states, which already use the same eligibility criteria

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[956] *See infra* section XIII for a discussion of how carriers will recover their contributions.

[957] *See, e.g.,* CNMI comments at 30; GSA comments at 7-8; Ohio PUC comments at 12.

[958] Recommended Decision, 12 FCC Rcd at 304.

[959] Recommended Decision, 12 FCC Rcd at 304.

[960] Recommended Decision, 12 FCC Rcd at 304.

[961] *Cf, e.g.*, Edgemont comments at 2; New Jersey Advocate comments at 6.

[962] Recommended Decision, 12 FCC Rcd at 304.

[963] *See* 47 C.F.R. § 36.711(d).

[964] In the Recommended Decision, the Joint Board recommended that states should continue to establish means-tested Link Up qualification criteria.

for both programs.[965] This change, however, will base states' ability to set Link Up eligibility criteria on whether they participate in Lifeline. Accordingly, we eliminate the requirement that states verify Link Up customers' qualifications for the program and instead rely on the states to determine whether the costs of verification outweigh the potential for fraud, waste, and abuse. Because only those states generating intrastate Lifeline support will make this determination, they will have an independent incentive to control fraud, waste, and abuse. In states that do not participate in Lifeline, the federal default Lifeline qualifications also will apply to Link Up.

382. We also adopt the Joint Board's recommendation[966] that states shall be prohibited from restricting the number of service connections per year for which low-income consumers who relocate can receive Link Up support. Commenters observe that this rule is vital for migrant farmworkers and low-income individuals who have difficulty maintaining a permanent residence,[967] and we agree that this rule will help ensure that consumers in all regions of the nation have access to affordable telecommunications services[968] and that rates for such services are reasonable.[969]

D. Services Included in Lifeline and Link Up

1. Background

383. The Joint Board recommended[970] that low-income consumers should have access to the same services designated for support for rural, insular, and high cost areas.[971] The Joint Board also recommended that support should be provided for toll-limitation services to the extent a carrier possesses the capability of providing such services. Toll-limitation services include both toll blocking, which prevents the placement of all long distance calls for which the subscriber would be charged, and toll control, which limits the toll charges a

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[965] *See FCC Monitoring Report*, tbl. 2.4.

[966] Recommended Decision, 12 FCC Rcd at 304.

[967] Catholic Conference comments at 8-9; Edgemont comments at 16-18. *See also* Robert J. Lock comments at 16-18.

[968] *See* 47 U.S.C. § 254(b)

[969] *See* 47 U.S.C. §§ 154(i), 201, 205.

[970] Recommended Decision, 12 FCC Rcd at 284.

[971] Those services are: single-party service; voice grade access to the public switched telephone network; DTMF or its functional digital equivalent; access to emergency services; access to interexchange service; access to directory assistance; and access to operator services.

subscriber can incur during a billing period to a preset amount.[972] The Joint Board recommended that carriers without such capability be required to add the capability to provide at least toll blocking in any switch upgrades. The Joint Board recommended that carriers offering toll limitation receive support based on the incremental cost of providing such service. The Joint Board also recommended[973] that the Commission prohibit carriers receiving universal service support for providing Lifeline service from disconnecting such service for non-payment of toll charges.[974] The Joint Board further recommended that the Commission adopt a national rule prohibiting telecommunications carriers from requiring consumers participating in any state's Lifeline program to pay service deposits in order to initiate service if those consumers voluntarily elect to receive toll blocking.[975]

2. Discussion

384. Services for Low-Income Consumers. We agree with the Joint Board that we should ensure, through universal service support mechanisms, that low-income consumers have access to certain services. The current Lifeline program does not require that low-income consumers receive a particular level of telecommunications services. Thus, heeding the specific recommendation of the Joint Board and a majority of commenters,[976] we amend the Lifeline program to provide that Lifeline service must include the following services: single-party service; voice grade access to the public switched telephone network; DTMF or its functional digital equivalent; access to emergency services; access to operator services; access to interexchange service; access to directory assistance; and toll-limitation services, as

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[972] NPRM at para. 54. Throughout this Order, we will use the term "toll limitation" to refer to both services generically, and the terms "toll control" and "toll blocking" when discussing the respective services specifically.

[973] Recommended Decision, 12 FCC Rcd at 286.

[974] The Joint Board recommended, however, that the Commission permit state utilities regulators to grant an otherwise eligible telecommunications carrier a limited waiver of this requirement if the carrier can establish that: (1) it would incur substantial costs in complying with such a requirement; (2) it offers toll-limitations services to its Lifeline subscribers at no charge; and (3) telephone subscribership among low-income consumers in the carrier's service area is at least as high as the national subscribership level for low-income consumers. Pursuant to the Joint Board's recommendation, the waiver would terminate after two years, at which time the carrier could reapply for the waiver.

[975] Recommended Decision, 12 FCC Rcd at 305.

[976] *See, e.g.,* Catholic Conference comments at 9; Citizens Utilities comments at 30; NCTA comments at 15-16; United Church of Christ comments at 2-4; Washington UTC comments at 11.

discussed in section IV above.[977] In determining the specific services to be provided to low-income consumers, we adopt the Joint Board's reasoning that section 254(b)(3) calls for access to services for "[c]onsumers in all regions of the Nation, including low-income consumers"[978] and that universal service principles may not be realized if low-income support is provided for service inferior to those supported for other subscribers. As discussed above, all these services, with the exception of toll limitation, also will be supported by universal service support mechanisms for rural, insular, and high cost areas, and we therefore find that low-income consumers should receive support for these services.

385. We further agree with the Joint Board's recommendation[979] and many commenters' suggestions[980] that Lifeline consumers also should receive, without charge, toll-limitation services. As the Joint Board observed, studies demonstrate that a primary reason subscribers lose access to telecommunications services is failure to pay long distance bills.[981] Because voluntary toll blocking allows customers to block toll calls, and toll control allows customers to limit in advance their toll usage per month or billing cycle, these services assist customers in avoiding involuntary termination of their access to telecommunications services. The Joint Board concluded, however, that low-income consumers may not be able to afford voluntary toll-limitation services in a number of jurisdictions.[982] Therefore, like the Joint Board, we are confident that providing voluntary toll limitation without charge to low-income consumers, should encourage subscribership among low-income consumers. Our conclusion is based, in part, on the success of toll limitation in states such as Pennsylvania, which boasts one of the nation's highest subscribership rates.[983] Customers of Bell Atlantic-Pennsylvania may receive toll limitation without charge when initiating telephone service or when, after toll service has been terminated for non-payment, they pay all outstanding charges and request

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[977] *See supra* section IV, Definition of Universal Service, and *infra* para 62. We note that for a few services, including toll-limitation services, we have established a period of time during which eligible telecommunications carriers will be permitted to upgrade their switches to provide these services.

[978] Recommended Decision, 12 FCC Rcd at 284 (*citing* 47 U.S.C. § 254(b)(3)).

[979] Recommended Decision, 12 FCC Rcd at 285.

[980] *See, e.g.,* California PUC comments at 10; Catholic Conference comments at 9; CNMI comments at 31; DC OPC comments at 1; Florida PSC comments at 4; GSA comments at 8-9; MFS comments at 27; NASUCA comments at 9; Ohio PUC comments at 8; Public Advocate comments at 2; SBC comments at 7; TURN comments at 2; WorldCom comments at 23; AT&T reply comments at 19; Georgia PSC reply comments at 2.

[981] Recommended Decision, 12 FCC Rcd at 285.

[982] Recommended Decision, 12 FCC Rcd at 285.

[983] *See Subscribership Notice*, 10 FCC Rcd at 13007.

such service.[984] Furthermore, we find that toll-limitation services are "essential to education, public health or public safety"[985] and "consistent with the public interest, convenience, and necessity"[986] for low-income consumers in that they maximize the opportunity of those consumers to remain connected to the telecommunications network.

386. We also adopt the Joint Board's recommendation that carriers providing voluntary toll limitation should be compensated from universal service support mechanisms for the incremental cost of providing toll-limitation services.[987] We disagree with PacTel's proposal that carriers should receive support for their lost revenues in providing toll-limitation services (defined as the amount customers normally would pay for the service).[988] We find that recovery of the incremental costs of toll-limitation services is adequate cost recovery that does not place an unreasonable burden on the support mechanisms. By definition, incremental costs include the costs that carriers otherwise would not incur if they did not provide toll-limitation service to a given customer, and carriers will be compensated for their costs in providing such service.[989] Because low-income consumers may otherwise be unlikely to purchase toll-limitation services,[990] we do not find it is necessary to support the full retail charge for toll-limitation services the carrier would charge other consumers. We therefore also conclude that universal service support should not contribute to the service's joint and common costs. As discussed below, we require that Lifeline subscribers receive toll-limitation services without charge.

387. PacTel also urges the Commission to "allow carriers to devise specific solutions targeted at their own customers, rather than dictating a regulatory approach." PacTel asserts that studies indicate that consumers prefer to limit rather than to block their toll calls, and the Commission's rules should preserve carriers' flexibility to decide which services to offer.[991] We emphasize that Lifeline consumers' acceptance of toll blocking is voluntary, and that Lifeline consumers are free to select toll control, which limits rather than

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[984] *See Subscribership Notice,* 10 FCC Rcd at 13007.

[985] 47 U.S.C. § 254(c)(1)(A).

[986] 47 U.S.C. § 254(c)(1)(D).

[987] Recommended Decision, 12 FCC Rcd at 285.

[988] PacTel comments at 30-31.

[989] For this reason, it is unclear to us what "start-up costs" PacTel is concerned will go uncompensated. *See* PacTel comments at 30-31.

[990] Recommended Decision, 12 FCC Rcd at 285.

[991] PacTel comments at 34.

prevents consumers' ability to place toll calls from carriers providing such a service. Both toll blocking and toll control are forms of toll-limitation service that would be supported by federal universal service mechanisms.

388. As explained in section IV, however, we will authorize state commissions to grant carriers that are technically incapable of providing toll-limitation services a period of time during which they may receive universal service support for serving Lifeline consumers while they complete upgrading their switches so that they can offer such services.[992] The Joint Board observed that most carriers currently are capable of providing toll-blocking service,[993] and some carriers are capable of providing toll control.[994] Eligible telecommunications carriers with deployed switches that are incapable of providing toll-limitation services, however, shall not be required to provide such services to customers served by those switches until those switches are upgraded. We adopt the Joint Board's recommendation, however, that, when they make any switch upgrades, eligible telecommunications carriers currently incapable of providing toll-limitation services must add the capability to their switches to provide at least toll blocking in any switch upgrades (but Lifeline support in excess of the incremental cost of providing toll blocking shall not be provided for such switch upgrades).[995] This is not an exception to eligible telecommunications carriers' general obligation to provide toll-limitation services; rather, it is a transitional mechanism to allow eligible telecommunications carriers a reasonable time in which to replace existing equipment that technically prevents the provision of the service.

389. We concur with the Joint Board that support should not be provided for toll-limitation services for consumers other than low-income consumers.[996] Subscribership levels fall well below the national average only among low-income consumers, and, as the Joint Board observed, a principal reason for this disparity appears to be service termination due to

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[992] Recommended Decision, 12 FCC Rcd at 285.

[993] For example, the Joint Board identified the following carriers as offering toll blocking: Ameritech, Bell Atlantic, BellSouth, GTE, NYNEX, Pacific Telesis Group, and Southwestern Bell Telephone Company. Recommended Decision, 12 FCC Rcd at 285 n.1284.

[994] The Joint Board identified the following carriers as offering toll control: Bell Atlantic-Pennsylvania; Denver and Ephrata Telephone and Telegraph Company; Pacific Telesis; and Southwestern Bell Telephone Company. *See* Recommended Decision, 12 FCC Rcd at 285 n.1284. Pacific Telesis points out that the Joint Board incorrectly identified it as offering toll control. PacTel comments at 30 n.44. We observe that some commenters discussed the difficulty of providing toll control for LECs who do not rate long distance calls. *See, e.g.,* Ameritech comments at 16; California Dept. of Consumer Affairs comments at 42; California Dept. of Consumer Affairs reply comments at 12.

[995] *See* Recommended Decision, 12 FCC Rcd at 285-286.

[996] Recommended Decision, 12 FCC Rcd at 286. *But see* New Jersey Advocate comments at 5-6.

failure to pay toll charges.[997] Therefore, we adopt the Joint Board's recommendation that, to the extent carriers are capable of providing them, toll-limitation services should be supported only for low-income consumers at this time.

390. No Disconnection of Local Service for Non-Payment of Toll Charges. We also adopt the Joint Board's recommendation and reasoning that we should prohibit eligible telecommunications carriers from disconnecting Lifeline service for non-payment of toll charges.[998] As the NPRM[999] and the Joint Board[1000] both noted, studies suggest that disconnection for non-payment of toll charges is a significant cause of low subscribership rates among low-income consumers.[1001] For this reason, many commenters supported the Joint Board's proposal.[1002] Furthermore, the no-disconnect rule advances the principles of section 254 that "quality services should be available at just, reasonable, and affordable rates"[1003] and that access to telecommunications services should be provided to "consumers in

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[997] Recommended Decision, 12 FCC Rcd at 286.

[998] Recommended Decision, 12 FCC Rcd at 286. This decision should not be construed to affect the ability of the states to implement a rule prohibiting disconnection of local service for non-payment of toll charges for non-Lifeline customers.

[999] NPRM at para. 56 (*citing Subscribership Notice*, 10 FCC Rcd at 13005-06). We are not persuaded by the statistics that MCI offers in an attempt to show that a no-disconnect rule is not effective in increasing subscribership. MCI comments at 12-13. There is no statistical significance in the difference between Pennsylvania's penetration increase (2.2 percent) and the nationwide average increase (2.5 percent) (Pennsylvania has had a no-disconnect rule since 1985), nor is there any showing that penetration in other states was not inhibited by the disconnection of local service for non-payment of toll charges. *See id.*

[1000] Recommended Decision, 12 FCC Rcd at 286.

[1001] *See, e.g.,* "Affordability of Telephone Service - A Survey of Customers and Non-Customers," Field Research Corporation, 1993, vol. 1, at S-7 (*California Affordability Study*); Mueller and Schement, *Universal Service from the Bottom Up: A Profile of Telecommunications Access in Camden, New Jersey*, Rutgers University Project on Information Policy (1995); MTS and WATS Market Structure; Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board; Establishment of a Program to Monitor the Impact of Joint Board Decision, *Second Study and Report,* CC Docket Nos. 78-72, 80-286, 87-339, FCC 89J-3 (1989) at 15, (study conducted by Regional Bell Holding Companies and the GTE Telephone Operating Companies, Inc., at the request of the CC Docket No. 80-286 Joint Board and showing that the inability to control long distance usage is a major cause of disconnection of telephone service).

[1002] *See, e.g.,* Catholic Conference comments at 8; CNMI comments at 31-32; Edgemont comments at 2; GSA comments at 7-8; NASUCA comments at 10; New Jersey Advocate comments at 6; Ohio PUC comments at 9; Public Advocates comments at 2; Telco comments at 12; TURN comments at 2; West Virginia Consumer Advocate comments at 6; WorldCom comments at 24; Chicago reply comments at 7-8; CPI reply comments at 17, 19.

[1003] 47 U.S.C. § 254(b)(1).

all regions of the nation, including low-income consumers."[1004] We therefore believe that such a rule is within the ambit of our authority in section 254. We further find, consistent with these principles, that an eligible telecommunications carrier may not deny a Lifeline consumer's request for re-establishment of local service on the basis that the consumer was previously disconnected for non-payment of toll charges.

391. We also find that our adoption of a no-disconnect rule will make the market for billing and collection of toll charges more competitively neutral.[1005] Currently, the ILEC is the only toll charge collection agent that can offer the penalty of disconnecting a customer's *local* telephone service for non-payment of other charges. ILECs have maintained this special prerogative, although the interstate long distance market and the local exchange markets legally have been separated for over a decade, and interstate billing and collection activities have been deregulated since 1986.[1006] Because the practice of disconnecting local service for non-payment of toll charges essentially is a vestige of the monopoly era, we find our rule prohibiting that practice will further advance the pro-competitive, deregulatory goals of the 1996 Act.

392. Contrary to DC OPC suggestion,[1007] we agree with several commenters[1008] and limit the federal rule to Lifeline subscribers at this time, because only low-income consumers experience dramatically lower subscribership levels that can be attributed to toll charges.[1009] If we subsequently find that subscribership levels among non-Lifeline subscribers begin to decrease, we will consider whether this rule should apply to all consumers. In the interest of comity, however, we leave to the states' discretion whether such a rule should apply to other consumers at this time.

393. We further conclude that carriers offering Lifeline service must apply partial payments received from Lifeline consumers first to local service charges and then to toll charges, in keeping with our goal of maintaining low-income consumers' access to local telecommunications services. We find that this rule furthers the principle in section 254 that access to telecommunications services should be provided to "consumers in all regions of the

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[1004] 47 U.S.C. § 254(b)(3).

[1005] *See* Ohio PUC comments at 9.

[1006] Detariffing of Billing and Collection Services, *Report and Order*, CC Docket No. 85-88, 102 FCC 2d 1150 (1986), *recon. denied*, 1 FCC Rcd 445 (1986).

[1007] DC OPC comments at 4.

[1008] *See, e.g.,* WorldCom comments at 24; Telco reply comments at 8; TRA reply comments at 15.

[1009] *Subscribership Notice*, 10 FCC Rcd at 13009.

nation, including low-income consumers"[1010] and is within our authority in section 1 to make communications services available to as many people as possible.[1011] Whether a Lifeline consumer's long distance and local service providers are the same or different entities shall not affect the application of this rule. While a carrier providing both local and long distance service to the same consumer must be able to distinguish between the services' respective charges to comply with our rule, we find that any administrative burden this initially may cause is outweighed by the benefit of maintaining Lifeline consumers' access to local telecommunications services.

394. We also do not condition the rule prohibiting disconnection of local service for non-payment of toll charges on the consumer's agreement to accept toll-limitation services. Proponents of this condition essentially argue that without this condition carriers will experience higher levels of uncollectible toll expenses.[1012] We are not convinced that toll limitation is necessary, however, because toll-service providers already have available the functional equivalent of toll limitation. That is, we observe that our rule prohibiting disconnection of Lifeline service will not prevent toll-service providers from discontinuing *toll* service to customers, including Lifeline customers, who fail to pay their bills. Although this may have been impossible with the switching technology used in the past, it is achievable now.[1013] In virtually all cases, IXCs receive calling party information with each call routed to them and could refuse to complete calls from subscriber connections with arrearages. As to existing unpaid amounts (as to which toll limitation is irrelevant), because the rule does not affect toll carriers' ability to collect their bills using all the methods available to any other creditor, we disagree with both ACTA, which argues without further elaboration that the no-disconnect rule would be "constitutionally suspect,"[1014] and GTE, which asserts that it would force carriers to cross-subsidize uncollectible toll bills with revenues obtained from other toll

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[1010] 47 U.S.C. § 254(b)(3).

[1011] 47 U.S.C. § 151.

[1012] *See, e.g.,* MCI comments at 12; PacTel comments at 32; USTA comments at 33; TRA reply comments at 15-16.

[1013] *See Subscribership Notice*, 10 FCC Rcd at 13009 (tentatively concluding that current switching technology does not provide a technical barrier to selective blocking of long distance calls) and *Disconnection of Basic Local Exchange Service for the Nonpayment of Charges Associated with Services Other Than Basic Local Exchange Service*, Finding and Order, Case No. 95-790-TP-COI, Ohio PUC (June 12, 1996) (concurring with Commission's tentative conclusion in Subscribership Notice that current switching technology is capable of selectively blocking calls). We also note that the record in this proceeding does not indicate that current switching technology is incapable of allowing carriers to selectively block long distance calls.

[1014] ACTA reply comments at 4.

bills.[1015] We also are confident that, where legally permissible, the toll-services industry will find ways of sharing information to protect itself against any consumers that might seek to exploit the rule by regularly switching carriers after incurring substantial charges. Further, we expect, as did the Joint Board, that a rule prohibiting eligible telecommunications carriers from disconnecting Lifeline subscribers' local service for non-payment of toll charges should create an incentive for carriers to offer low-income consumers services to manage their toll expenditures, further reducing the potential of uncollectible charges.[1016]

395. For similar reasons, we disagree with commenters arguing that carriers' market-driven initiatives can achieve the same effect as a no-disconnect rule.[1017] We conclude that the overall approach that we take here will provide carriers with adequate flexibility to initiate market-driven solutions for attracting and maintaining low-income subscribers. We acknowledge the initiatives that PacTel has taken, as described in its comments,[1018] but find that a federal no-disconnect rule will best meet our objective of assisting low-income consumers in maintaining access to local telecommunications services and fostering competitive telecommunications markets.

396. Despite the benefits of a no-disconnect rule for Lifeline consumers, we agree with the Joint Board that state utilities regulators should have the ability, in the first instance, to grant carriers a limited waiver of the requirement under limited, special circumstances. Accordingly, we adopt the Joint Board's recommendation that carriers may file waiver requests with their state commissions. To obtain a waiver, the carrier must make a three-pronged showing. First, the carrier must show that it would incur substantial costs in complying with such a requirement. Such costs could relate to burdens associated with technical or administrative issues, for example. For example, some carriers providing both local and long distance service to the same consumer may find it particularly burdensome to distinguish between local and long distance charges. Second, the carrier must demonstrate that it offers toll-limitation services to its Lifeline subscribers. We find that, if a carrier is permitted by its state commission to disconnect local service for non-payment of toll bills, its Lifeline consumers should at least be able to control their toll bills through toll limitation. Third, the carrier must show that telephone subscribership among low-income consumers in its service area in the state from which it seeks the waiver, is at least as high as the national subscribership level for low-income consumers. Carriers must make this showing because, we conclude, applying a no-disconnect policy to carriers serving areas with subscribership levels

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[1015] GTE comments at 85-86.

[1016] *See* Recommended Decision, 12 FCC Rcd at 286; TRA reply comments at 15.

[1017] *See, e.g.,* GTE comments at 85-86; PacTel comments at 33.

[1018] PacTel comments at 31-33.

below the national average will help to improve such particularly low subscribership levels.[1019] This waiver standard is therefore extremely limited, and a carrier must meet a heavy burden to obtain a waiver.[1020] Furthermore, such waivers should be for no more than two years, but they may be renewed.[1021] If a party believes that a state commission has made an incorrect decision regarding a waiver request, or if a state commission does not make a decision regarding a waiver request within 30 days of its submission, such party may file an appeal with the Commission.[1022] The party must file the appeal with the Commission within 30 days of either the state commission's decision or the date on which the state commission should have rendered its decision. Furthermore, a state commission choosing not to act on waiver requests promptly should refer any such requests to the Commission.

397. We decline to adopt PacTel's proposals to relax the waiver requirements for the no-disconnect rule. PacTel asserts that carriers like itself, which offer an "equivalent to" toll limitation, should be exempt from the no-disconnect rule.[1023] PacTel offers toll blocking without charge for no more than six months to consumers who either are on the verge of being disconnected for non-payment and wish to retain basic local service, or have been disconnected and must accept toll blocking as a substitute for paying outstanding balances or

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[1019] Recommended Decision, 12 FCC Rcd at 287.

[1020] *See* 47 C.F.R. § 1.3. (providing that a waiver of the Commission's rules may be granted for good cause shown). *See also Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (providing that the Commission may exercise its discretion to waive a rule when particular facts would make strict compliance inconsistent with the public interest, and the party seeking the waiver demonstrates that the rule is unjust as applied to the party given the unique circumstances of the situation; a waiver is thus appropriate only if special circumstances warrant a deviation from the general rule and such deviation will better serve the public interest than adherence to the general rule); *WAIT Radio v. FCC*, 418 F.2d 1153, 1157, 1159 (D.C. Cir. 1969), *cert. denied*, 409 U.S. 1027 (1972) (explaining that "[t]he very essence of a waiver is the assumed validity of the general rule . . .").

[1021] *See* Recommended Decision, 12 FCC Rcd at 287.

[1022] We conclude that, in allowing states to grant waivers of the no-disconnect rule, we have not unlawfully delegated our authority to state commissions. In determining whether an agency has unlawfully delegated its statutory authority, courts generally first consider whether there has been a "delegation" and look to three factors in making this determination: (1) whether the agency has established specific standards to be followed by the other entity; (2) whether the agency has retained supervisory power over the actions of the other entity; and (3) whether the agency's actions are consistent with its statutory mandate. *See National Ass'n of Psychiatric Treatment Centers for Children v. Mendez*, 857 F. Supp 85 (D.D.C. 1994); *United States v. Matherson*, 367 F. Supp. 779 (E.D.N.Y. 1973), *aff'd mem.*, 493 F.2d 1399 (2d Cir. 1974); *Assiniboine and Sioux Tribes v. Board of Oil & Gas Conservation*, 792 F.2d 782 (9th Cir. 1986). We find that, based on these three factors, the Commission has not impermissibly delegated its authority in allowing states to grant waivers of the no-disconnect rule.

[1023] PacTel comments at 36.

a deposit in order to be reconnected. PacTel also offers toll blocking, for $2.00 per month, with no time restriction.[1024] We agree with the Joint Board that carriers must offer Lifeline customers toll limitation without charge and without time restrictions in order to meet the second prong of the waiver requirement. We conclude that providing Lifeline customers with toll limitation will increase subscribership among low-income consumers. Furthermore, as discussed above, we find that such waivers should be rare, given our conclusion that a no-disconnect rule will assist low-income subscribers in maintaining access to telecommunications services. We therefore also reject PacTel's proposal to modify the third requirement so that a carrier could obtain a waiver as long as the difference between the national subscribership level and the level in the carrier's service area is no more than three percentage points.

398. Prohibition on Service Deposits. Pursuant to the Joint Board's recommendation and many commenters' urging,[1025] we adopt a rule prohibiting eligible telecommunications carriers from requiring a Lifeline subscriber to pay service deposits in order to initiate service if the subscriber voluntarily elects to receive toll blocking.[1026] We find that eliminating service deposits for Lifeline customers upon their acceptance of toll blocking is consistent with section 254(b) and within our general authority under sections 1, 4(i), 201, and 205 of the Act. Section 201 of the Act gives the Commission authority to regulate common carriers' rates and service offerings, and section 1 directs that the Commission's regulations provide as many people as possible with the ability to obtain telecommunications services at reasonable rates. We find that, because carriers' high service deposits deter subscribership among low-income consumers,[1027] it is within our authority to prohibit carriers from charging service deposits for Lifeline consumers who accept toll blocking. Research suggests that carriers often require customers to pay high service deposits in order to initiate service, particularly when customers have had their service disconnected previously.[1028] Therefore, we prohibit eligible telecommunications carriers from requiring Lifeline service subscribers to pay service deposits in order to initiate service if the subscriber voluntarily chooses to receive toll blocking. As we have stated, universal service support shall be provided so that toll blocking is made available to all Lifeline consumers at no additional charge. During the period of time when carriers incapable of providing toll-limitation services are permitted to upgrade their

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[1024] PacTel comments at 30, n.44.

[1025] *See, e.g.,* CNMI comments at 33; DC OPC comments at 1, 3-4; NASUCA comments at 10; New Jersey Advocate comments at 6; SBC comments at 7; TURN comments at 2; Catholic Conference reply comments at 8-9; Georgia PSC reply comments at 20.

[1026] Recommended Decision, 12 FCC Rcd at 305.

[1027] *See* Recommended Decision, 12 FCC Rcd at 305; NPRM at para. 56.

[1028] NPRM at para. 56 (*citing Subscribership Notice*, 10 FCC Rcd at 13005-06).

switches to become capable of providing such services, however, Lifeline subscribers may be required to pay service deposits.

399. Edgemont and Ohio PUC suggest that Lifeline consumers should receive the benefits of not having to pay service deposits even if they do not accept toll blocking.[1029] We believe that toll blocking should be required, however, because it will significantly reduce the risk of uncollectible toll bills, as DC OPC points out.[1030] Because carriers charge service deposits primarily to guard against uncollectible toll charges,[1031] we are requiring consumers to accept toll blocking (which bars the placement of toll calls) in order to benefit from a rule prohibiting service deposits. We emphasize, however, that Lifeline consumers will not be required to accept toll blocking in order to benefit from our rule prohibiting disconnection of local service for non-payment of toll charges, because of the distinct nature of local and long distance service. That is, consumers should not be required to accept toll blocking, which controls long distance charges, in order to retain their local telecommunications service.

400. We disagree with commenters arguing that a rule prohibiting service deposits for Lifeline customers who elect to receive toll blocking will interfere with carriers' legitimate need to protect themselves against uncollectible charges. For example, USTA asserts that "[d]eposit requirements are necessary to protect companies from offering unlimited credit to persons that have demonstrated they cannot or will not handle previously incurred charges."[1032] Neither LECs nor IXCs are required to offer any customer "unlimited credit," however, and our action in this proceeding does not affect any carrier's ability to discontinue providing service to a customer, including a Lifeline customer, who does not pay for the service that carrier has provided.[1033] Additionally, as the Joint Board reasoned,[1034] consumers' ability to benefit from a rule prohibiting the collection of service deposits is made conditional on their accepting toll blocking, which further protects carriers. USTA argues that "[t]oll blocking may prevent an unpaid balance from increasing, but it provides no incentive for customers to pay outstanding balances."[1035] We have been presented with no evidence,

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[1029] Edgemont comments at 2; Ohio PUC comments at 12.

[1030] DC OPC comments at 3.

[1031] In most cases, IXCs sell their accounts receivable to ILECs for billing and collection.

[1032] USTA comments at 33-34.

[1033] Our rule prohibiting the disconnection of Lifeline service for non-payment of toll charges does not affect this ability. That rule only prohibits carriers from disconnecting *local* Lifeline service as a result of the customer's failure to pay for *toll* charges.

[1034] Recommended Decision, 12 FCC Rcd at 305.

[1035] USTA comments at 33-34.

however, to suggest that a carrier would be less likely to charge service deposits to customers with bad payment histories who have paid their arrearages than to such customers who have not. Thus, it is unclear why allowing carriers to charge service deposits would provide customers with any more incentive to pay outstanding balances.

401. In addition, carriers may protect themselves against consumers' failure to pay local charges by requesting advance payments in the amount of one month's charges, as most ILECs currently do. We would consider an advance-payment requirement exceeding one month to be an improper deposit requirement, however. That is, while carriers could charge one month's advance payment, they may take action against consumers only after such charges have been incurred (through disconnection or collection efforts, for example). Assessing charges on consumers before any overdue payments are owed could make access to telecommunications services prohibitively expensive for low-income consumers.

402. GTE maintains that, if service deposits are reduced or eliminated, LECs should be reimbursed for such reduction because the 1996 Act requires that universal service support should be explicit.[1036] We find, however, that eliminating service deposits will not create an implicit subsidy. As the Joint Board pointed out, service deposits primarily guard against the risk of non-payment of toll charges, which many ILECs bill to customers on behalf of IXCs.[1037] Carriers will be protected against nonpayment for services rendered by the customer's election to receive toll blocking, a precondition to the customer's avoiding a service deposit requirement. Ameritech argues that a service deposit prohibition may be inappropriate in jurisdictions with usage-based local rates.[1038] We are confident, however, that carriers in these jurisdictions will find ways to protect themselves against arrearages, such as through pre-payment and usage-limitation programs.

403. Other Services. In response to the NPRM, some commenters suggest that low-income consumers should receive free access to information about telephone service and that compensation for providing such information should come from support mechanisms.[1039] These commenters appear to be concerned that low-income consumers will be unable to place calls to gain telephone service information if the calls otherwise would be an in-region toll call, or if the state's Lifeline program allows only a limited number of free calls. Similarly, NAD suggests that universal service support mechanisms should provide support so that TTY

[1036] GTE comments at 87-88.

[1037] *See* Recommended Decision, 12 FCC Rcd at 305.

[1038] Ameritech comments at 16-17.

[1039] *See, e.g.*, CNMI NPRM comments at 19-20; Edgemont NPRM comments at 12; Michigan Consumer Federation NPRM comments at 20.

users can make free relay calls to numbers providing LEC service information.[1040] We agree with the Joint Board's recommendation that the states are able to determine, pursuant to section 254(f), whether to require carriers to provide Lifeline customers with free access to information about telephone service.[1041] The states are most familiar with the number of consumers in their respective states affected by charges for these calls and may impose such a requirement on carriers pursuant to section 254(f) through state universal service support mechanisms. Additionally, we find that the record on free access to telephone service information does not adequately explain how to support access to such information in a competitively neutral way, so that consumers are assured access to such information from all eligible service providers. We agree with the Joint Board that the same concerns militate against providing federal support for low-income consumers with disabilities making relay calls to gain access to LEC service information.[1042]

404. We concur with the Joint Board that, given the present structure of residential interexchange rates, the record does not support providing universal service support for usage of interexchange and advanced services for low-income consumers.[1043] We will, however, continue to monitor the interexchange services market to determine whether additional measures are necessary for low-income consumers. We therefore reject Urban League's argument that we provide additional support to ensure that low-income consumers have access to advanced services through telecommunications connections with fax and modem capability.[1044] We observe that Lifeline services will be provided by telecommunications carriers that have been certified as eligible for universal service support pursuant to section 214(e). Such carriers will be obligated to provide certain services, including access to interexchange service, to consumers in rural, insular, and high cost areas, and we decline to specify a different level of service for low-income consumers. We also conclude that the steps we take to enable low-income consumers to have access to Lifeline service will increase their ability to obtain advanced services. That is, advanced services generally are obtained through local or interexchange service, and Lifeline service includes access to both. Furthermore, as the Joint Board noted, it is unclear whether providing support for advanced services is necessary at this time.[1045] If only low-income consumers lack access to such

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[1040] NAD NPRM reply comments at 22.

[1041] Recommended Decision, 12 FCC Rcd at 287.

[1042] Recommended Decision, 12 FCC Rcd at 287.

[1043] Recommended Decision, 12 FCC Rcd at 288.

[1044] Urban League Comments at 9. *See also* Nat'l Black Caucus comments at 19 (underserved communities should have access to advanced services).

[1045] Recommended Decision, 12 FCC Rcd at 288.

services in the future, impeding the achievement of universal service goals, we will revisit this issue.

405. Some commenters disagree with the Joint Board's recommendation that issues relating to special-needs equipment for consumers with disabilities should not be addressed in this proceeding because Congress provided for disabled individuals' access to telecommunications services separately in section 255.[1046] We agree with the Joint Board, however, that these matters are best addressed in a proceeding to implement section 255.[1047] We observe that we have taken a first step toward the implementation of section 255 with the release of a *Notice of Inquiry* on September 19, 1996 and January 14, 1997.[1048] Some parties argue, however, that the section 255 proceeding will not address their concerns about the need for subsidies for specialized customer premises equipment for persons with disabilities, toll-charge parity for TTY users, or subsidies for telecommuting costs for homebound individuals with disabilities.[1049] We find, however, that, if Congress had intended to include such support mechanisms within the ambit of section 254, it would have done so in a more explicit manner. Congress specifically identified other categories of users for whom support should be provided pursuant to section 254, such as low-income consumers, consumers in rural, insular, and high cost areas, schools and libraries, and rural health care providers.[1050] Similarly, Congress clearly addressed access by disabled individuals in section 255.[1051] Neither the text nor the legislative history of section 254 indicates that Congress intended for us to create new support mechanisms targeted specifically to individuals with disabilities. We observe, however, that individuals with disabilities will receive support through the programs we adopt today to the extent that they fall within the supported categories that Congress specified in section 254.

[1046] *See, e.g.,* NAD comments at 2-5; United Cerebral Palsy Ass'n comments at 3-6; Universal Service Alliance comments at 5-7; Consumer Action reply comments at 3-4 (arguing that consumers with disabilities are among the poorest in the nation).

[1047] Recommended Decision, 12 FCC Rcd at 288.

[1048] Implementation of Section 255 of the Telecommunications Act of 1996, Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities, *Notice of Inquiry*, WT Docket No. 96-198, FCC 96-382 (rel. Sept. 19, 1996); Telecommunications Relay Services, the Americans with Disabilities Act of 1990, and the Telecommunications Act of 1996, *Notice of Inquiry*, CC Docket No. 90-571, FCC 97-7 (rel. Jan. 14, 1997).

[1049] *See* NAD comments at 2-5; United Cerebral Palsy Ass'n comments at 5; National Telecommuting Institute, Inc. *ex parte*. *See also* Universal Service Alliance comments at 7.

[1050] *See* 47 U.S.C. § 254(b)(3), (6).

[1051] 47 U.S.C. § 255.

406. Some commenters argue that support should be available to ensure that low-income consumers who lack access to residential service nevertheless have access to telecommunications services.[1052] These commenters advocate support for voice mail or other non-residential services for homeless individuals or, alternatively, for community-based groups that provide such services. We adopt the Joint Board's recommendation, however, and conclude that, in the interest of comity and in recognition of their ability to assess the needs of their particular low-income population, states could elect to target their low-income universal service programs to such groups. Federal Lifeline and Link Up programs, however, were designed to make residential service more affordable for low-income consumers, and we decline to change the basic structure of our programs at this time.

407. We generally agree with commenters that argue that low-income subscribership levels might increase if there were more information available to low-income consumers about the existence of assistance programs.[1053] We agree with the Joint Board, however, that the states are in a better position than the Commission to supply such information, particularly given the flexibility states have to target low-income universal service programs to the particular needs of their residents. Furthermore, while we conclude that support from federal universal service support mechanisms will not be given to carriers distributing such information, we note that eligible telecommunications carriers will be required to advertise the availability of, and charges for, Lifeline pursuant to their obligations under section 214(e)(1).[1054]

E. Implementation of Revised Lifeline and Link Up Programs

408. Although we find that the changes to Lifeline and Link Up we now adopt will make both programs consistent with the Act and our objective of increasing subscribership among low-income consumers, we find that the public interest would not be served by disrupting the existing Lifeline and Link Up services that ILECs currently offer in most areas of the country. We therefore must select a date on which the current Lifeline and Link Up programs will terminate and the new programs begin.

409. Because the new universal service support mechanisms must be in place in order to fund the revised Lifeline and Link Up programs, we conclude that the new Lifeline

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[1052] *See, e.g.*, Alliance for Community Media comments at 8-9; Catholic Conference comments at 7; Public Advocates comments at 4-7.

[1053] *See, e.g,*, Florida PSC comments at 4; Benton reply comments at 3-5.

[1054] 47 U.S.C. § 214(e)(1) provides that eligible telecommunications carriers shall, throughout their service areas, advertise the availability of, and charges for, the services supported by federal universal service support mechanisms.

and Link Up funding mechanisms will commence on January 1, 1998. Additionally, support for toll limitation for Lifeline subscribers shall begin at that same time, because support for this service also should come from the new support mechanisms.

IX. ISSUES UNIQUE TO INSULAR AREAS

A. Overview

410. We agree with the Joint Board recommendation that residents and carriers in the insular areas should have access to all universal service programs, including those for high cost support, low-income assistance, and schools, libraries, and rural health care providers. We also agree with the recommendation that we not take any action now to provide support for toll-free access and access to information services in the Commonwealth of the Northern Mariana Islands (CNMI) and Guam, but revisit at a later date the issue of whether support is needed for those services. We note that CNMI and Guam will be included in the North American Numbering Plan (NANP) on July 1, 1997, and that interexchange carriers serving the Pacific Island territories must integrate their rates for service with their rates for providing service to other areas in the United States by August 1, 1997. We find that it is too early to assess the need to support toll-free access and access to information services until these regulatory changes have taken effect.

B. Background

411. Section 254(b)(3) establishes the principle that consumers in insular areas should have access to telecommunications and information services, including interexchange services, and advanced telecommunications and information services that are (1) reasonably comparable to those services provided in urban areas and (2) available at rates that are reasonably comparable to rates charged for similar services in urban areas.[1055] As explained in the Joint Explanatory Statement, Congress intended for the Joint Board and the Commission to consider consumers in insular areas, such as the Pacific Island territories, when developing support mechanisms for consumer access to telecommunications and information services.[1056]

412. The Pacific Island territories have historically been treated as international destinations for purposes of telecommunications regulation. The telecommunications markets on the islands, however, are currently undergoing major changes.[1057] Beginning on July 1,

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[1055] 47 U.S.C. § 254(b)(3).

[1056] Joint Explanatory Statement at 131.

[1057] *See* CNMI comments at 3-5; Governor of Guam comments at 3-4. For example, during the summer of 1997, the Guam Telephone Authority, the local exchange carrier on Guam, will (1) join the NANP; (2) introduce Feature Group D equal access; and (3) begin to participate in the NECA access tariffs. Guam Tel. Authority comments at 2. On March 21, 1997, the Common Carrier Bureau granted Guam Tel. Authority's petition to establish a study area encompassing the Territory of Guam. Guam Telephone Authority Petition for Declaratory Ruling, *Report and Order*, AAD 97-27, DA 97-595 (Accounting and Audits Div., Com. Car. Bur., rel. Mar. 21,

1997, CNMI and Guam will be included in the NANP,[1058] which will allow consumers in the islands to place a call to the mainland by dialing "1+" the area code and seven digits rather than dialing an international "011" number.[1059] By August 1, 1997 interexchange carriers serving those islands will have to integrate their rates with the rates for services that they provide to other states.[1060]

413. At this time, because most toll-free access customers in the United States do not purchase toll-free access service that includes CNMI, Micronesia Telecommunications Corporation (MTC) offers "paid access" to many toll-free (800/888) numbers. Under this arrangement the calling party calls an 880/881 number and pays a charge that covers the cost of the portion of the call from CNMI to Hawaii, where the call is linked to the domestic toll-free access service.[1061] A similar arrangement allows end users on Guam to access toll-free

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1997).

[1058] *See* North American Numbering Plan Planning Letter, NANP-Introduction of New 670 (CNMI) Numbering Plan Area (NPA), PL-NANP-010 (Sep. 4, 1996); North American Numbering Plan Planning Letter, NANP-Introduction of New 671 (Guam) Numbering Plan Area (NPA), PL-NANP-004 (Aug. 5, 1996). American Samoa is the only U.S. territory or possession with more than *de minims* interstate interexchange telecommunications traffic that originates or terminates in the fifty states or other U.S. territories or possessions that is not, or is not currently scheduled to be, included in the NANP.

[1059] The NANP is the basic numbering scheme that permits interoperable telecommunications service within the United States, Canada, Bermuda, and most of the Caribbean. Calls made between points included in the NANP can be placed by dialing "1+" the area code and seven digit number. Calls to or from areas outside of the NANP must use the international dialing pattern, "011." *See* Administration of the North American Numbering Plan, *Report and Order*, 11 FCC Rcd 2588, 2593-95 (1995).

[1060] Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934, as amended, *Report and Order*, 11 FCC Rcd 9564 (1996). An interexchange carrier must establish rates for services provided to the U.S. possessions and territories, including American Samoa, the Northern Mariana Islands and Guam that are consistent with the rate methodology that the IXC employs to set rates for services it provides to consumers in other "states." Carriers can choose among several ways to integrate the rates for services to these islands, including expanding mileage bands, adding mileage bands, or offering postalized rates. A carrier must also offer optional calling plans, contract tariffs, discounts, promotions, and private line services to subscribers on these island territories using the same methodology to set rate levels and structure that it uses in offering those services to subscribers on the mainland. *Id.* at 9596-98.

[1061] CNMI comments at 6-7. The use of 880 and 881 numbers to access toll-free numbers originated with a resolution of the Industry Numbering Committee (INC). *See* Industry Numbering Committee, Issue #34: Allocation Request for 880 NPA Code, resolution date: November 3, 1995. INC Issue #34 resolved that 880 and 881 numbers could be used for inbound foreign-billed 800 type service. It, however, does not allow for the use of 880 or 881 numbers to place calls within the same country in the NANP.

service by using the 880/881 numbers.[1062]

C. Discussion

414. In the Recommended Decision, the Joint Board recognized the special circumstances faced by carriers and consumers in the insular areas of the United States, particularly the Pacific Island territories. The Joint Board recommended that all of the universal service mechanisms adopted in this proceeding should be available in those areas. Thus, low-income residents living in insular areas, such as American Samoa and the U.S. Virgin Islands, would benefit from the Lifeline and Link-up programs, and schools, libraries, and rural health care providers in insular areas would benefit from the programs the Joint Board recommended for providing services to those institutions pursuant to section 254(h). Likewise, carriers in insular areas would be potentially eligible for universal service support if they serve high cost areas.[1063] We agree and adopt these recommendations of the Joint Board and conclude, in accordance with section 254,[1064] that insular areas shall be eligible for the universal service programs adopted in this Order.

415. The Joint Board also recommended that the Commission work with an affected state if subscribership levels in that state fall from the current levels on a statewide basis.[1065] The record indicates that subscribership levels in insular areas are particularly low.[1066] Accordingly, as we discussed previously,[1067] we will issue a Public Notice to solicit further comment on the factors that contribute to the low subscribership levels that currently exist in insular areas, and to examine ways to improve subscribership in these areas.[1068]

416. Regarding support for toll-free access and access to information services in insular areas, the Joint Board recommended that the Commission take no specific action at

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[1062] *See* Governor of Guam comments at 9-10.

[1063] Recommended Decision, 12 FCC Rcd at 308.

[1064] *See* 47 U.S.C. § 254(b)(3); Joint Explanatory Statement at 131. *See also* 47 U.S.C. § 153(40) (defining "State" to include U.S. Territories and possessions).

[1065] Recommended Decision, 12 FCC Rcd at 154.

[1066] *See* Puerto Rico Tel. Co. comments at 5 (telephone subscribership is 72 percent in Puerto Rico); CNMI NPRM comments at 10 (telephone subscribership is 66.8 percent in CNMI according to 1990 Census data).

[1067] *See supra* section V.B.2.

[1068] We recognize that, although the record includes data regarding Puerto Rico, Guam and CNMI, we have no data with respect to American Samoa. We strongly encourage American Samoa to supplement the record in this proceeding.

this time, but revisit this issue at a later date. The Joint Board's recommendation reflects the fact that Guam and CNMI will be included in the NANP by July 1, 1997, and that the Commission will require interstate carriers serving the Pacific Island territories to integrate their rates with the rates for services that they provide to other states no later than August 1, 1997. The Joint Board noted that those changes will affect decisions by the carriers' business customers and information service providers on whether to locate in a certain area or to provide toll-free access to that area.[1069]

417. We agree with the Joint Board's recommendation that we take no action regarding support for toll-free access and access to information services for the Pacific Island territories now, but revisit whether we should provide such support after those islands are included in NANP and interexchange carriers have integrated the islands into their rate structures. Those changes will have a significant impact on how residents of the islands place interexchange calls and the rates that they, and toll-free access customers, will pay for the calls they place.[1070] As the Joint Board correctly noted, it will be difficult for information service providers and businesses subscribing to toll-free access services to decide whether and how to serve the islands in advance of these regulatory changes.[1071] Consequently, we agree with the Joint Board that it is too early to assess whether there should be universal service support for toll-free access and information services in the Pacific Island territories or whether a decision not to provide support for these services would violate either section 202 or section 254(b)(3).[1072]

418. We anticipate that, when final rate-integration plans are filed, on or before June 1, 1997, the Pacific Island territories will be included in the nationwide service offerings of toll-free access service providers. Because they will be part of the NANP by the time that the rate integration plans become effective in August, these islands should be included in any nationwide service offering made after that time. Subscribers to toll-free access service will, of course, continue to be able to offer their customers toll-free access to the subscribers' businesses on less than a nationwide basis, such as in regional or statewide toll-free service areas. Thus we do not find it necessary to adopt a specific requirement that carriers providing toll-free access service include the Pacific Island territories in their "nation-wide" service area,

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[1069] *See* Recommended Decision, 12 FCC Rcd at 308-9.

[1070] We note, for example, that, in filing its preliminary rate integration plan, Sprint states that it intends "to reduce existing rates between Guam/Northern Marianas and the rest of the United States significantly." Letter to Regina M. Keeney, FCC, from Kent Y. Nakamura, Sprint, dated Feb. 3, 1997.

[1071] Recommended Decision, 12 FCC Rcd at 309.

[1072] *See* CNMI comments at 6, 10.

as suggested by the Governor of Guam.[1073]

419. We agree with the commenters that there should be some period in which residents of CNMI and Guam can continue to have access to toll-free numbers while the market adjusts to the inclusion of those islands in the NANP and rate integration.[1074] We note that under the industry plan for introducing the new numbering plan areas (NPAs) for CNMI and Guam there is a twelve-month "permissive dialing" period during which callers may use either the NANP numbers or continue to use the international numbering plan to place calls to and from the islands.[1075] We find it in the public interest to permit the continued use of 880 and 881 numbers by end users in the Pacific Island territories to place toll-free calls during that "permissive dialing" period -- until July 1, 1998. We believe that such a period provides ample time for toll-free access customers to evaluate the costs and benefits of including the Pacific Island territories in their toll-free access service areas and to decide whether to include the islands in their area covered by the toll-free dialing service agreements with their service providers. We also note that the islands will be included in the NANP a month before the rate-integration plans must become effective. Without this transition period, there would be a month during which consumers could not use 880 or 881 numbers and during which toll-free access customers might not have the benefit of integrated rates to the islands.

420. Toll-free service is currently provided in CNMI and Guam as inbound foreign-billed service.[1076] This service allows a calling party who is in another NANP country to pay for a call from his or her location to the United States, where the call is linked to the toll-free service.[1077] For customers in CNMI and Guam, it means that they pay the portion of the 880/881 call from their location to Hawaii, where it is linked to the toll-free service.[1078]

421. According to a resolution of the Industry Numbering Committee (INC), however, the use of 880 and 881 numbers for inbound foreign-billed 800-type service was to be restricted to calls placed from foreign locations within the NANP to toll-free dialing

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[1073] *See* Governor of Guam comments at 8.

[1074] *See* CNMI comments at 13-14; Governor of Guam comments at 8-9; Interior reply comments at 2.

[1075] *See* North American Numbering Plan Planning Letter, NANP-Introduction of New 670 (CNMI) Numbering Plan Area (NPA), PL-NANP-010 (Sep. 4, 1996); North American Numbering Plan Planning Letter, NANP-Introduction of New 671 (Guam) Numbering Plan Area (NPA), PL-NANP-004 (Aug. 5, 1996).

[1076] CNMI comments at 7; Governor of Guam comments at 8.

[1077] *See* Bellcore, Reissuance of Notification of Assignment of 880 and 881 NPAs for Inbound Foreign Billed Calls to Toll-Free Numbers, Bellcore Letter Number IL-96/03-001 (dated Mar. 8, 1996)

[1078] CNMI comments at 7; Governor of Guam comments at 8.

numbers in the United States.[1079] Thus, consumers in CNMI and Guam would be unable to make 880/881 calls once those territories are included in the NANP. We find that the circumstances in these territories warrant exercise of our regulatory powers over numbering pursuant to section 251(e) of the Act to supersede this industry agreement by providing for the transition period described above that will allow end users in CNMI and Guam the continued use of 880/881 numbers to place toll-free calls.[1080] This action is related to the implementation of the 1996 Act, and is extremely limited in scope -- applying only to 880 and 881 calls from CNMI and Guam and only until July 1, 1998, which will coincide with the permissive dialing period established by the Administrator of the NANP. We also note that none of the parties that filed comments in this proceeding have objected to the proposal made by the Governor of Guam and CNMI to continue the use of the 880/881 numbers from CNMI and Guam during this period.[1081] We also find that this action is in keeping with the Joint Board's intent that we allow the telecommunications markets in CNMI and Guam time to adjust to the inclusion of the islands in the NANP before we revisit whether to provide universal service support for toll-free access services from those areas.

422. We also find that the use of 880 and 881 numbers for a limited transition period does not violate section 228 of our rules regarding pay-per-call services.[1082] Calls using 880 and 881 do not fall within the definition of "pay-per-call" because they are not accessed through a 900 number, and the calling party is only charged for the transmission, or part of the transmission, of the call.[1083] Although the 880 or 881 number provides a link to a toll-free number, it is not a toll-free number itself. Those numbers are not advertised as toll-free numbers and it is understood, particularly by consumers in the Pacific Island territories who have been using the numbers over the past few years, that there is a charge associated with the use of the numbers. Therefore, we conclude that the use of an 880 or 881 number

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[1079] *See* Industry Numbering Committee, Issue #34: Allocation Request for 880 NPA Code, resolution date: November 3, 1995. *See also* Bellcore Letter Number IL-96/03-001 ("The 880 and 881 NPAs shall not be used for calls that originate and terminate in the same NANP country, i.e., they are not to be used domestically.")

[1080] 47 U.S.C. § 251(e).

[1081] *See* CNMI comments at 14; Governor of Guam comments at 8-9. The only commenter that addressed this issue was Interior, which supports the proposal. Interior comments at 2.

[1082] 47 U.S.C. § 228; 47 C.F.R. §§ 64.1501 *et seq*. These provisions require common carriers to prohibit the use of any telephone number beginning with an 800 access code, or any other telephone number advertised or widely understood to be toll-free, in a manner that would result in five described results including "[t]he calling party or the subscriber to the originating line being assessed by virtue of the call, a charge for the call," and "[t]he calling party being connected to a pay-per-call service." 47 C.F.R. § 64.1504.

[1083] *See* 47 U.S.C. § 228(i)(1); 47 C.F.R. § 64.1501(a).

does not violate the restrictions on the use of toll-free numbers in section 228 or our rules.[1084]

423. We thus agree with CNMI that there is no legal restriction on using 880 and 881 numbers for calls from CNMI and Guam to toll-free access numbers within the NANP.[1085] Indeed, because we find the temporary use of those numbers for access to toll-free services in the Pacific Island territories to be in the public interest, at least for a short period, we shall permit carriers originating calls from the Pacific Island territories to toll-free access services within the NANP to continue using 880 and 881 numbers to provide access to those services until July 1, 1998. Consumers on those islands should thus be able to continue to use 880/881 to access toll-free numbers during that period. We anticipate that by July 1, 1998, the businesses subscribing to toll-free access services will have made a business decision as to whether to include the Pacific Island territories in their toll-free access service plans. As recommended by the Joint Board, we will then revisit the issue of whether universal service support is needed for toll-free access and access to information services from the Pacific Island territories.

[1084] *See* 47 U.S.C. § 228(c)(7); 47 C.F.R. § 64.1504.

[1085] CNMI comments at 14.

X. SCHOOLS AND LIBRARIES

A. Overview

424. For the first time, the 1996 Act includes schools and libraries among the explicit beneficiaries of universal service support. The legislative history indicated that Congress intended to ensure that eligible schools and libraries have affordable access to modern telecommunications and information services that will enable them to provide educational services to all parts of the nation.[1086]

425. We adopt the Joint Board's recommendation that all eligible schools and libraries[1087] should receive discounts of between 20 percent and 90 percent on all telecommunications services, Internet access, and internal connections provided by telecommunications carriers, subject to a $2.25 billion annual cap. We take this action pursuant to section 254(c)(3) and section 254(h)(1)(B) rather than section 254(h)(2)(A) on which the Joint Board relied. We note that the Joint Board did not suggest that these services are not covered by section 254(h)(1)(B), it merely chose to rely on section 254(h)(2). As to installation and maintenance of internal connections, the Joint Board explicitly rejected the argument that these services are ineligible for support under section 254(h)(1) because they are "goods" or "facilities" rather than "services."[1088] In addition, any funds that are not disbursed in a given year shall be carried forward and may be disbursed in subsequent years without regard to the cap. We agree with the Joint Board that schools and libraries should have maximum flexibility to purchase the package of services they believe will most effectively meet their communications needs. We also share the Joint Board's preference that we foster competition from non-telecommunications carriers. We, therefore, encourage those providers to enter into partnerships or joint ventures with telecommunications carriers. In addition, pursuant to sections 254(h)(2) and 4(i), we extend support for the provision of discounted services by non-telecommunications carriers, within the overall annual cap mentioned above. We also concur with the Joint Board and conclude that economically disadvantaged schools and libraries, as well as schools and libraries located in high cost areas, shall receive greater discounts to ensure that they have affordable access to supported services. Finally, we agree with the Joint Board's conclusion that schools and libraries should be required to comply with several self-certification requirements, each designed to ensure that only eligible entities receive universal support and that they have adopted plans for

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[1086] Joint Explanatory Statement at 132.

[1087] The term "school" includes individual schools, school districts, and consortia of schools and/or school districts. The term "library" includes individual library branches, library facilities, library systems, and library consortia.

[1088] *See* Recommended Decision, 12 FCC Rcd at 330, 331.

securing cost-effective access to and use of all of the services purchased from telecommunications carriers under section 254(h)(1) and non-telecommunications carriers under sections 254(h)(2) and 4(i).

B. Telecommunications Carrier Functionalities and Services Eligible for Support

1. Background

426. Telecommunications Services and Internet Access. Section 254 defines the services that are to be supported for schools and libraries in terms of "telecommunications services,"[1089] "special" or "additional" services,[1090] and access to "advanced telecommunications and information services."[1091] Congress recognized the importance of telecommunications and related services to schools and libraries when it enacted the 1996 Act:

> The provisions of subsection [254] (h) will help open new worlds of knowledge, learning and education to all Americans -- rich and poor, rural and urban. They are intended, for example, to provide the ability to browse library collections, review the collections of museums, or find new information on the treatment of illness, to Americans everywhere via schools and libraries. This universal access will assure that no one is barred from benefiting from the power of the Information Age.[1092]

427. Section 254(c)(3) states that "[i]n addition to the services included in the definition of universal service under paragraph [c] (1), the Commission may designate additional services for such support mechanisms for schools, [and] libraries . . . for the purposes of subsection [254] (h)."[1093] Section 254(h)(2) states that "[t]he Commission shall establish competitively neutral rules to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for

[1089] 47 U.S.C. § 254(c)(1).

[1090] 47 U.S.C. § 254(c)(3).

[1091] 47 U.S.C. § 254(h)(2)(A).

[1092] Joint Explanatory Statement at 132-33.

[1093] 47 U.S.C. § 254(c)(3).

all public and non-profit elementary and secondary school classrooms . . . and libraries."[1094] Moreover, in its consideration of "additional" services under section 254(c)(3), Congress authorized the Commission to specify a distinct definition of universal service that would apply only to public institutional telecommunications users.[1095] The conferees stated that they expected "the Commission and the Joint Board to take into account the particular needs of . . . K-12 schools and libraries."[1096]

428. In the Recommended Decision, the Joint Board recommended that the Commission adopt rules that give schools and libraries the maximum flexibility to purchase whatever package of telecommunications services they believe will meet their telecommunications needs most effectively and efficiently.[1097] The Joint Board also recommended that the Commission make discounts for Internet access available to schools and libraries pursuant to section 254(h)(2)(A).[1098] According to the Joint Board, Internet access should be defined as basic conduit, i.e., non-content access from the school or library to the backbone Internet network, which would include the communications link to the Internet service provider, whether through dial-up access or via a leased line, the links to other Internet sites via the Internet backbone, generally provided by an Internet service provider for a monthly subscription fee, if applicable, and electronic mail.[1099] Finally, the Joint Board declined to recommend that a discount mechanism for other information services be established at this time.[1100]

429. Intra-School and Intra-Library Connections. Sections 254(b)(6) and 254(h)(2)(A) specifically refer to the provision of telecommunications and other services directly to classrooms. Section 254(b)(6) states that "elementary and secondary school *classrooms* should have *access* to advanced telecommunications services."[1101] Further, section 254(h)(2) provides that "[t]he Commission shall establish competitively neutral rules . . . to enhance, to the extent technically feasible and economically reasonable, *access* to advanced

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[1094] 47 U.S.C. § 254(h)(2)(A).

[1095] Joint Explanatory Statement at 133.

[1096] Joint Explanatory Statement at 133.

[1097] Recommended Decision, 12 FCC Rcd at 321.

[1098] Recommended Decision, 12 FCC Rcd at 323.

[1099] Recommended Decision, 12 FCC Rcd at 323.

[1100] Recommended Decision, 12 FCC Rcd at 324.

[1101] 47 U.S.C. § 254(b)(6) (emphasis added).

telecommunications and information services for all public and non-profit elementary and secondary school *classrooms*. . . and libraries."[1102] Congress explained that "[n]ew subsection (h) of Section 254 is intended to ensure that . . . elementary and secondary school *classrooms* and libraries have affordable *access* to modern telecommunications services."[1103] Congress further stated that "[t]he ability of K-12 [kindergarten to 12th grade] *classrooms*, [and] libraries . . . to obtain *access* to advanced telecommunications services is critical to ensuring that these services are available on a universal basis."[1104] In the floor debate, Senators Snowe and Rockefeller stated that, while 35 percent of schools have access to the Internet, only three percent of the nation's classrooms are connected to the Internet.[1105] Senator Rockefeller noted that cost was a significant barrier to classrooms having access to the Internet.[1106] The Further Comment Public Notice asked explicitly whether section 254(h) contemplates that "inside wiring or other internal connections to classrooms may be eligible for universal service support of telecommunications services provided to schools and libraries" and requested estimates of the cost of such support.[1107]

430. In the Recommended Decision, the Joint Board recommended that the Commission permit schools and libraries to secure internal connections at a discount pursuant to section 254(h)(2)(A).[1108] The Joint Board also recommended that the Commission establish competitively neutral rules that would provide support to any provider of internal connections that the school or library selects.[1109]

2. Discussion

a. Telecommunications Services

[1102] 47 U.S.C. § 254(h)(2) (emphasis added).

[1103] Joint Explanatory Statement at 132.

[1104] Joint Explanatory Statement at 132-33 (emphasis added).

[1105] 141 Cong. Rec. S7978, S7981 (daily ed. June 8, 1995).

[1106] 141 Cong. Rec. S7978, 7981 (daily ed. June 8, 1995). *See infra* section X.C.3. for Senator Rockefeller's direct quotation.

[1107] Further Comment Public Notice at question 7.

[1108] Recommended Decision, 12 FCC Rcd at 330, 334.

[1109] Recommended Decision, 12 FCC Rcd at 334.

431. We adopt the Joint Board's recommendation,[1110] supported by many commenters,[1111] to provide schools and libraries with the maximum flexibility to purchase from telecommunications carriers whatever package of commercially available telecommunications services they believe will meet their telecommunications service needs most effectively and efficiently. We observe that Apple and the New York DOE ask us to focus support on T-1 or higher bandwidth access[1112] and Netscape asks us to provide greater discounts on higher bandwidth connections to the Internet,[1113] while the Vermont PSB asks us to set greater discounts for more basic telecommunications services than for Internet access and internal connections.[1114] The contrasting views of New York and Vermont, and those revealed in the Florida PSC survey of 17 states,[1115] demonstrate how different states have set different priorities for meeting their schools' and libraries' varying needs and circumstances.

432. As the Joint Board recognized, the establishment of a single set of priorities for all schools and libraries would substitute our judgment for that of individual school administrators throughout the nation, preventing some schools and libraries from using the services that they find to be the most efficient and effective means for providing the educational applications they seek to secure.[1116] Given the varying needs and preferences of different schools and libraries and the relative advantages and disadvantages of different technologies, we agree with the Joint Board that individual schools and libraries are in the best position to evaluate the relative costs and benefits of different services and technologies.[1117] We also agree with the Ohio PUC and DOE that our actions should not

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[1110] Recommended Decision, 12 FCC Rcd at 321-322.

[1111] *See, e.g.,* AFT comments at 1; ALA comments at 2; Ameritech comments at 18; APTS comments at 3-4; Brooklyn Public Library comments at 2; City of Seattle comments at 1; EDLINC comments at 4; New York Public Library comments at 1; USTA comments at 35; Atlanta Board of Education reply comments at 1; Fort Frye School District reply comments at 1; Vanderbilt reply comments at 2.

[1112] Apple comments at 4; New York DOE comments at 6.

[1113] Netscape reply comments at 5.

[1114] Vermont PSB comments at 15.

[1115] Recommended Decision, 12 FCC Rcd at 322 (*citing* Florida PSC, *Promoting Educational Infrastructure and the Role of the Florida Public Service Commission*at 33-34 (May 1996)).

[1116] Recommended Decision, 12 FCC Rcd at 321.

[1117] Recommended Decision, 12 FCC Rcd at 322-23. Congress imposed no limits whatsoever on the telecommunications services for which eligible schools and libraries could arrange to receive discounts. We see no reason for limiting the nature of the telecommunications services that are covered under section 254(h)(1)(B) or the role they play in the operations of the institution. Eligible schools and libraries are equally free to obtain support under section 254(h)(1)(B) for plain old telephone service (POTS) lines to enable teachers to receive

disadvantage schools and libraries in states that have already aggressively invested in telecommunications technologies in their state schools and libraries.[1118] Because we will require schools and libraries to pay a portion of the costs of the services they select,[1119] we agree with the Joint Board that, as recognized by most commenters,[1120] allowing schools and libraries to choose the services for which they will receive discounts is most likely to maximize the value to them of universal service support and to minimize inefficient uses of services.[1121]

433. As the Joint Board observed, permitting schools and libraries full flexibility to choose among telecommunications services also eliminates the potential risk that new technologies will remain unavailable to schools and libraries until the Commission has completed a subsequent proceeding to review evolving technological needs.[1122] Thus, in an environment of rapidly changing and improving technologies, empowering schools and libraries, regardless of wealth and location, to choose the telecommunications services they will use as tools for educating their students will enable them to use and teach students to use state-of-the-art telecommunications technologies as those technologies become available.

434. We reject SBC's arguments that authorizing discounts for all telecommunications services would be "arbitrary, unreasonable, and otherwise unlawful," and would abdicate our responsibility to select a single set of services for schools and libraries.[1123] We limit section 254(c)(3) telecommunications services to those that are commercially available, and we find no reason to interpret section 254(c)(3) to require us to adopt a more narrow definition of eligible services. We also reject New York DPS's assertion that our

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calls in the classroom, ISDN services that connect classroom and library computers with information services, private lines for connecting two school libraries to each other, or pagers to enable school security officials promptly to respond to hallway disturbances.

[1118] Ohio DOE comments at 4; Ohio PUC comments at 16-17.

[1119] *See infra* section X.C.2.b.

[1120] *See, e.g.,* AFT comments at 1; ALA comments at 2; Ameritech comments at 18; APTS comments at 3-4; Brooklyn Public Library comments at 2; City of Seattle comments at 1; EDLINC comments at 4; New York Public Library comments at 1; USTA comments at 35; Atlanta Board of Education reply comments at 1; Fort Frye School District reply comments at 1; Vanderbilt reply comments at 2.

[1121] Recommended Decision, 12 FCC Rcd at 321.

[1122] Recommended Decision, 12 FCC Rcd at 322-23.

[1123] SBC comments at 43-44, 49-50.

approach limits state flexibility to adopt intrastate programs.[1124] We observe that a state preferring a program that targets a narrower or broader set of services may make state funds available to schools or libraries that purchase those services.

435. CTIA asks that the Commission go beyond simply allowing schools and libraries to choose wireless services to "preempt any [s]tate or local statutes or regulations which exclude, or have the effect of excluding, wireless carriers."[1125] We conclude, however, that section 253 of the Act adequately preempts any state or local laws or regulations that would preclude wireless carriers from providing service to schools and libraries.[1126] Specifically, section 253(a) provides that no state or local statute, regulation, or requirement may "prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."[1127] Moreover, section 253(d) empowers the Commission to preempt any state or local statute, regulation, or legal requirement that prohibits any entity from providing interstate or intrastate telecommunications services.[1128]

b. Internet Access

436. Eligible Services. We also follow the Joint Board's recommendation, supported by many commenters,[1129] that schools and libraries receive rate discounts from

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[1124] New York DPS reply comments at 2.

[1125] CTIA comments at 9-10 (footnote omitted).

[1126] *See* 47 U.S.C. § 253.

[1127] 47 U.S.C. § 253(a).

[1128] *See* 47 U.S.C. § 253(d).

> (d) PREEMPTION.-If, after notice and an opportunity for public comment, the Commission determines that a [s]tate or local government has permitted or imposed any statute, regulation, or legal requirement that violates subsection (a) or (b), the Commission shall preempt the enforcement of such statute, regulation, or legal requirement to the extent necessary to correct such violation or inconsistency.

Id.

[1129] *See, e.g.,* AOL comments at 4-8; Business Software Alliance comments at 1-2; CNMI comments at 36; Commercial Internet Exchange comments at 2-3; EDLINC comments at 4; Great City Schools comments at 2; Illinois State Library comments at 2; Juno Online comments at 4-7; Metricom comments at 2; NetAction comments at 6; North Dakota PSC comments at 2; Oracle comments at 1; People For comments at 10; Seattle comments at 1; Atlanta Board of Education reply comments at 1; Colorado LEHTC reply comments at 2; Fort Frye School District reply comments at 1; GI reply comments at 1-2; NCTA reply comments at 5-7; Small Cable

telecommunications carriers for basic "conduit" access to the Internet.[1130] We conclude that sections 254(c)(3) and 254(h)(1), in the context of the broad policies set forth in section 254(h)(2), authorize us to permit schools and libraries to receive the telecommunications and information services provided by telecommunications carriers needed to use the Internet at discounted rates.

437. We observe that section 254(c)(3) grants us authority to "designate additional services for support"[1131] and section 254(h)(1)(B) authorizes us to fund any section 254(c)(3) services.[1132] The generic universal service definition in section 254(c)(1)[1133] and the rate provision regarding special services for rural health care providers in section 254(h)(1)(A)[1134] are both explicitly limited to telecommunications services. In the education context, however, the statutory references are to the broad class of "services," rather than the narrower class of "telecommunications services." Specifically, section 254(c)(3) refers to "additional services,"[1135] while section 254(h)(1)(B) refers to "any of its services";[1136] neither provision refers to the narrower class of telecommunications services. In addition, section 254(a)(1) and (a)(2) mandate that the Commission define the "services that are supported by Federal universal service support mechanisms" but does not limit support to telecommunications services.[1137] The use of the broader term "services" in section 254(a) provides further validation for the inclusion of services in addition to telecommunications services in sections 254(c)(3) and 254(h)(1)(B).

438. Some parties challenge our authority to support services other than telecommunications services, arguing that the various sections of section 254 referring to

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reply comments at 2. *Cf.* RTC comments at 43-44 (supporting the provision of toll-free dial-up Internet access for schools and libraries); Interior reply comments at 3 (same); NTIA reply comments at 29-30 (same).

[1130] Recommended Decision, 12 FCC Rcd at 323.

[1131] 47 U.S.C. § 254(c)(3).

[1132] 47 U.S.C. § 254(h)(1)(B).

[1133] 47 U.S.C. § 254(c)(1).

[1134] 47 U.S.C. § 254(h)(1)(A).

[1135] 47 U.S.C. § 254(c)(3).

[1136] 47 U.S.C. § 254(h)(1)(B).

[1137] 47 U.S.C. § 254(a)(2).

"services" must be read in concert.[1138] For example, BellSouth maintains that section 254(c)(1) defines universal service as "an evolving level of telecommunications services,"[1139] while AT&T notes that the subsequent references to "additional services" in section 254(c)(3) relate directly back to the "telecommunications services" referenced in section 254(c)(1).[1140] Had Congress intended to so limit the 254(c)(3) additional services, however, it would have used the phrase "additional telecommunications services" rather than the broader term "additional services" that it chose to use.

439. We also reject BellSouth's argument that the fact that section 254(h) is entitled "Telecommunications Services for Certain Providers" leads to the conclusion that the only services covered by that subsection are telecommunications services.[1141] To the contrary, within section 254(h) Congress specified which services must be "telecommunications services" in order to be eligible for support. As noted above, the rate provision regarding special services for rural health care providers, section 254(h)(1)(A), is explicitly limited to "telecommunications services."[1142] Thus, the term used in section 254(h)(1)(B), "any of its *services* that are within the definition of universal service under subsection (c)(3),"[1143] cannot be read as a generic reference to the heading of that section. Rather, the varying use of the terms "telecommunications services" and "services" in sections 254(h)(1)(A) and 254(h)(1)(B) suggests that the terms were used consciously to signify different meanings. In addition, the mandate in section 254(h)(2)(A) to enhance access to "advanced telecommunications and information services,"[1144] particularly when read in conjunction with the legislative history as discussed below, suggests that Congress did not intend to limit the support provided under section 254(h) to telecommunications services. We conclude, therefore, that we can include the "information services," e.g., protocol conversion[1145] and information storage, that are

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[1138] *See, e.g.,* ALLTEL comments at 5; Ameritech comments at 18-19; AT&T comments at 19-20; BellSouth comments at 22-25; Citizens Utilities comments at 11-13; GTE comments at 89-95; PacTel comments at 37-41; SBC comments at 43-44; USTA comments at 35; GCI reply comments at 13.

[1139] BellSouth comments at 22 (*citing* 47 U.S.C. § 254(c)(1)) (emphasis omitted).

[1140] AT&T comments at 19.

[1141] BellSouth comments at 23.

[1142] 47 U.S.C. § 254(h)(1)(A).

[1143] 47 U.S.C. § 254(h)(1)(B) (emphasis added).

[1144] 47 U.S.C. § 254(h)(2)(A).

[1145] The Commission has previously stated that both protocol conversion and protocol processing are information services under the 1996 Act. *See* Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended, CC Docket No. 96-149, *First Report and Order and*

needed to access the Internet, as well as internal connections,[1146] as "additional services" that section 254(h)(1)(B), through section 254(c)(3), authorizes us to support.[1147]

440. In this regard, section 254(h)(2)(A), which directs the Commission to establish competitively neutral rules to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services, informs our interpretation of sections 254(c)(3) and 254(h)(1)(B) as allowing schools and libraries to receive discounts on rates from telecommunications carriers for Internet access.[1148] Given the directive of section 254(h)(2)(A) that the Commission enhance the *access* that schools and libraries have to "information services," as described in the legislative history, i.e., actual educational content, we conclude that there should be discounts for access to these services provided by telecommunications carriers under the broad provisions of sections 254(c)(3) and 254(h)(1)(B).

441. Ameritech and Citizen Utilities argue that the reference in section 254(h)(2)(A) to providing schools and libraries with "access" to information services does not direct the Commission to provide discounts to schools and libraries for the information services provided by Internet service providers, but rather, only to the telecommunications services necessary for them to reach those Internet service providers.[1149] We conclude, however, that Ameritech and Citizen Utilities are confusing two different types of information services. We do not grant schools and libraries discounts on the cost of purchasing information content. We conclude, however, that we are authorized to provide discounts on the data links and associated services necessary to provide classrooms with access to those educational materials,

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Further Notice of Proposed Rulemaking, FCC 96-489, para. 104 (rel. Dec. 24, 1996). The Common Carrier Bureau defined the term "protocol conversion" as "the specific form of protocol processing that is necessary to permit communications between disparate terminals or networks." *See* IDCMA Petition for a Declaratory Ruling That AT&T's Frame Relay Service Is a Basic Service," *Memorandum Opinion and Order*, 10 FCC Rcd 13,717, 13,717-18 n.5 (1995) (*Frame Relay Order*). The *Frame Relay Order* also defined "protocol processing" as "a generic term, which subsumes `protocol conversion' and refers to the use of computers to interpret and react to the protocol symbols as the information contained in a subscriber's message is routed to its destination." *Id. See also* Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended, *Order on Reconsideration*, CC Docket 96-149, FCC 97-52, paras. 2-3 (rel. Feb. 19, 1997) (noting that there are three categories of protocol processing services that the Commission has treated as basic services in the past and will now treat as telecommunications services).

[1146] *See infra* section X.B.2.c.

[1147] NCTA reply comments at 6 (asserting that section 254(h)(2) "contemplates the inclusion of `access' as part of universal service without regard to the regulatory treatment of access services").

[1148] 47 U.S.C. § 254(h)(2)(A).

[1149] Ameritech comments at 18-19; Citizens Utilities comments at 11-14.

even though these functions meet the statutory definition of "information services" because of their inclusion of protocol conversion and information storage. Without the use of these "information service" data links, schools and libraries would not be able to obtain access to the "research information, [and] statistics" available free of charge on the Internet. We note that these information services are essential for effective transmission service, i.e., "conduit" service; they are not elements of the content services provided by information publishers.[1150] We conclude that our authority under sections 254(c)(3) and 254(h)(1)(B) is broad enough to achieve these section 254(h)(2)(A) goals.

442. Moreover, we note that the Joint Explanatory Statement stated that:

> For example, the Commission could determine that telecommunications and information services that constitute universal service for classrooms and libraries shall include dedicated data links and the ability to obtain access to educational materials, research information, statistics, information on Government services, reports developed by Federal, State and local governments, and information services which can be carried over the Internet.[1151]

443. We find that this approach of providing discounts for basic conduit access to the Internet should not favor Internet access when provided as pure conduit versus Internet access bundled with minimal content; rather, this approach should simply encourage schools and libraries to select the most cost-effective form of transmission access, separate of content. We reject BellSouth's assertion that, by providing this support, we would usurp the power of local communities to act in this area, because communities would still be able to spend their own funds on whatever technologies or services they choose to purchase.[1152] Finally, we find no need to resolve the jurisdictional status of particular services provided by telecommunications carriers to schools and libraries through universal service support at this time, as Netscape urges us to do,[1153] because the schools and libraries discount program we adopt will only become effective in states that set intrastate discounts that match the interstate discounts.[1154]

[1150] EDLINC comments at 4 (noting that "[i]f schools and libraries are not eligible for discounts on what is fast-becoming a basic element in the communications network, the purpose of [s]ection 254 will not have been met").

[1151] Joint Explanatory Statement at 133.

[1152] BellSouth comments at 27.

[1153] Netscape comments at 6-7.

[1154] *See infra* section X.C.2.f. for a discussion of interstate and intrastate discounts.

444. We also offer a more precise definition of what "information services" will be eligible for discounts under this program in response to commenters[1155] who challenge the feasibility of using the "basic, conduit" Internet access terminology that the Joint Board used to describe what aspects of Internet access are eligible for support.[1156] We note that Congress described the conduit services we seek to cover in another context in the 1996 Act.[1157] That is, in listing exceptions to the definition of "electronic publishing" in section 274 of the Act, Congress described certain services that are precisely the types of "conduit" services that we agree with the Joint Board should be available to eligible schools and libraries at a discount.[1158] We adopt the descriptions of those services here because we find that they provide the additional clarification of conduit services that commenters request.[1159] We conclude that eligible schools and libraries will be permitted to apply their relevant discounts to information services provided by entities that consist of:

> (i) the transmission of information as a common carrier;
> (ii) the transmission of information as part of a gateway to an information service, where that transmission does not involve the generation or alteration of the content of information but may include data transmission, address translation, protocol conversion, billing management, introductory information content, and navigational systems that enable users to access information services that do not affect the presentation of such information services to users; and
> (iii) electronic mail services [e-mail].[1160]

As recommended by the Joint Board, other information services, such as voice mail, shall not be eligible for support at this time.[1161]

[1155] *See* AOL comments at 6; Netscape reply comments at 6.

[1156] Recommended Decision, 12 FCC Rcd at 323.

[1157] *See, e.g.,* 47 U.S.C. § 274(h)(2)(B) and (C) (dealing with certain exceptions to the definition of "electronic publishing," including, among other things, the transmission of information as "a common carrier" and as "part of a gateway to an information service").

[1158] 47 U.S.C. § 274(h)(2)(B) and (C).

[1159] We note that we are not incorporating the definitions from section 274(h)(2) here, but merely using them as a model for universal service purposes. Thus, our use of section 274 should not imply anything about the classification of services in other contexts.

[1160] *Cf.* 47 U.S.C. § 274(h)(2).

[1161] Recommended Decision, 12 FCC Rcd at 324.

445. We also follow the Joint Board's recommendation to grant schools and libraries discounts on access to the Internet but not on separate charges for particular proprietary content or other information services.[1162] The Joint Board recommended that we solve the problem of bundling content and "conduit" (access) to the Internet by not permitting schools and libraries to purchase a package including content and conduit, unless the bundled package included minimal content and provided a more cost-effective means of securing non-content access to the Internet than other non-content alternatives. We agree with this approach.

446. Therefore, consistent with the Joint Board's recommendation, schools and libraries that purchase, from a telecommunications carrier, access to the Internet including nothing more than the services listed above will be eligible for support based on the purchase price. In addition, if it is more cost-effective for it to purchase Internet access provided by a telecommunications carrier that bundles a minimal amount of content with such Internet access, a school or library may purchase that bundled package and receive support for the portion of the package price that represents the price for the services listed above.

447. This approach will create three possible scenarios for schools and libraries. First, if the telecommunications carrier bundles access with a package of content that is otherwise available free of charge on the Internet because the content is advertiser-supported, bundling that content with Internet access will not permit the telecommunications carrier to recover any additional remuneration other than the fee for the access. Second, if the telecommunications carrier offers other Internet users access to its proprietary content for a price, it may treat the difference between that price and the price it charges for its access only package as the price of non-content Internet access. For example, if an IXC offers a $50.00 per month service that includes unlimited Internet access, as well as free access to particular proprietary educational software services, and the proprietary services are available independently for $30.00 per month, schools and libraries purchasing such a package will be eligible for support on $50.00 - $30.00 = $20.00 per month. Third, if a telecommunications carrier providing Internet access offers a bundled package of content that it does not offer on an unbundled basis and thus, the fair price of the conduit element cannot be ascertained readily, the school or library may receive support for such an Internet access package only if it can affirmatively show that the price of the carrier's Internet access package was still the most cost-effective manner for the school or library to secure basic, conduit access to the Internet.

448. AOL and Netscape suggest imposing a cap on the rates for Internet access for which a service provider will be compensated from universal service support mechanisms.[1163] AOL asserts that schools and libraries finding it to be the best service for gaining access to

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[1162] Recommended Decision, 12 FCC Rcd at 323-24.

[1163] AOL comments at 6-7; AOL reply comments at 8-9; Netscape reply comments at 6.

the Internet should be able to receive a discount on AOL's service, even if that service is not less expensive than some pure conduit service. AOL also suggests that schools and libraries be permitted to recover the entire amount of bundled content and conduit, subject to a cap based on a nationwide average charge for Internet access.[1164] We find the record lacking in many details of how this approach would work, including how a nationwide average of Internet access rates would be calculated and why such an average would not also include an average charge for the proprietary content included by some Internet access providers. Therefore, we find it impractical to adopt this approach at this time.

449. Eligible Providers. Section 254(e) states that only an "eligible telecommunications carrier" under section 214(e) may receive universal service support.[1165] Section 254(h)(1)(B)(ii), however, states that telecommunications carriers providing services to schools and libraries may receive reimbursement from universal service support mechanisms, notwithstanding the provisions of section 254(e).[1166] Consequently, we agree with the Joint Board in concluding that Congress intended that any telecommunications carrier, even one that does not qualify as an "eligible telecommunications carrier," should be eligible for support for services provided to schools and libraries.[1167] We anticipate that Internet service providers may subcontract with IXCs and LECs that were not already providing Internet access to begin to provide such access to the Internet, and we encourage small businesses to form such joint ventures. We expect that the resulting competition will generate low pre-discount prices for schools and libraries, without regard to direct participation by non-telecommunications carriers as provided below.

c. Intra-School and Intra-Library Connections

450. Support for Internal Connections. We agree with the Joint Board's analysis of the internal connection issue,[1168] as well as the reasoning numerous commenters offer for supporting that analysis.[1169] Congress intended that telecommunications and other services be

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[1164] AOL comments at 6.

[1165] 47 U.S.C. § 254(e).

[1166] 47 U.S.C. § 254(h)(1)(B)(ii).

[1167] Recommended Decision, 12 FCC Rcd at 323.

[1168] Recommended Decision, 12 FCC Rcd at 330.

[1169] *See, e.g.,* AFT comments at 1; CNMI comments at 36; CTIA comments at 10; EDLINC comments at 3; Great City Schools comments at 2; ITI comments at 7; MassLibrary comments at 1; Mississippi comments at 4; NetAction comments at 6; New Jersey Advocate comments at 8-9; Oracle comments at 14-18; Owen J. Roberts School District comments at 1; People For comments at 10; TCI comments at 8-9; Charles S. Robb reply

provided directly to classrooms.[1170] Therefore, eligible schools and libraries may, under sections 254(c)(3) and 254(h)(1), secure support for installation and maintenance of internal connections, among other services and functionalities provided by telecommunications carriers.

451. We find that, as discussed above, the Act permits universal service support for an expanded range of services beyond telecommunications services. [1171] Specifically, we conclude that the installation and maintenance of internal connections fall within the broad scope of the universal service support provisions of sections 254(c)(3) and (h)(1)(B), in the context of the broad goals of section 254(h)(2)(A). Nothing in section 254 excludes internal connections from the scope of "additional services" for schools and libraries that can be designated for support under section 254(c)(3) or the corresponding services for which schools and libraries can receive discounts under section 254(h)(1)(B). AirTouch, Cincinnati Bell, and GTE assert that we cannot provide universal service support for internal connections because the Commission has already deregulated inside wiring, i.e., designated it as a non-common carrier service.[1172] Consistent with our finding that a broad set of services should be supported, we also find that we should not limit support to just those services that are offered on a common carrier basis. Cincinnati Bell also contends that, because internal connections have been deregulated for some time and the market is competitive, schools and libraries have opportunities to solicit bids from many different providers and to negotiate for discounts to meet their needs, so there is no need to provide discounts on internal connections.[1173] In contrast, many education representatives submitted comments urging the Joint Board and the Commission to discount internal connections because the cost of internal connections constitutes a significant barrier to technology deployment. These comments suggest that the fact that a service has been deregulated and that competition has developed in some instances does not provide conclusive evidence that in all circumstances, schools and libraries will benefit from competition such that services will be affordable to them or that no additional discount is needed. The Act does not distinguish between competitive and non-competitive services in developing a program to establish explicit universal service support mechanisms.[1174] Indeed, we hope that all of the services provided by telecommunications

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comments at 2; CWA reply comments at 3; GI reply comments at 2; Ohio PUC reply comments at 13-15; Vanderbilt reply comments at 3-4.

[1170] *See* 47 U.S.C. § 254(b)(6); 47 U.S.C. § 254(h)(2)(A); Joint Explanatory Statement at 132-33.

[1171] *See supra* section X.B.2.b.

[1172] AirTouch comments at 20; Cincinnati Bell comments at 14; GTE comments at 89-91.

[1173] Cincinnati Bell comments at 14.

[1174] *See* 47 U.S.C. § 254(h)(1)(B).

carriers will, over time, become both competitive and unregulated.

452. We agree with the Joint Board's response to those parties arguing that the physical facilities providing intraschool and intralibrary connections are "goods" or "facilities" rather than section 254(c)(3) "services."[1175] The Joint Board observed that not only are the *installation and maintenance* of such facilities services, but the cost of the actual facilities may be relatively small compared to the cost of labor involved in installing and maintaining internal connections. The Joint Board noted that the D.C. Circuit has repeatedly referred to the installation and maintenance of inside wiring as services.[1176] The Joint Board also noted that adopting the opposite view would treat internal connections as a facility ineligible for support if a school purchased it but as a service eligible for support if a school leased the facility from a third party.[1177] Given that the provision of internal connections is a service, we conclude that we have authority to provide discounts on the installation and maintenance of internal connections under sections 254(c)(3) and 254(h)(1)(B).

453. We find further that the broad purposes of section 254(h)(2) support our authority for providing discounts for the installation and maintenance of internal connections by telecommunications carriers under sections 254(c)(3) and 254(h)(1)(B). As the Joint Board explained, section 254(h)(2)(A) states that "[t]he Commission shall establish competitively neutral rules . . . to *enhance*, to the extent technically feasible and economically reasonable, *access* to advanced telecommunications and information services for all public and nonprofit elementary and secondary school *classrooms* . . . and libraries."[1178] The Joint Board recognized that a primary way to give "classrooms" *access* to advanced telecommunications and information services is to connect computers in each classroom to a telecommunications network.[1179] We interpret the scope of sections 254(c)(3) and 254(h)(1)(B) as broad enough to cover the provision of discounts on internal connections provided by telecommunications carriers. Telecommunications carriers might well, of course, subcontract this business to non-telecommunications carriers.

454. We acknowledge that the cost of providing discounts for all internal connections for all unconnected schools and classrooms throughout the nation is substantial.

[1175] Recommended Decision, 12 FCC Rcd at 330. *Cf.* EDLINC comments at 3-4.

[1176] Recommended Decision, 12 FCC Rcd at 331 & n.1583 (*citing, inter alia, NARUC v. FCC*, 880 F.2d 422, 430 (D.C. Cir. 1989) (stating that "charges for inside wiring services are separated from charges for basic transmission service")).

[1177] Recommended Decision, 12 FCC Rcd at 331.

[1178] 47 U.S.C. § 254(h)(2)(A) (emphasis added).

[1179] Recommended Decision, 12 FCC Rcd at 331.

We agree with the Joint Board, however, that the cost is economically reasonable and in the public interest.[1180] The existence and popularity of NetDays throughout the nation[1181] demonstrate that providing internal connections is technically feasible. The willingness of individual states to fund installation and maintenance of internal connections[1182] is strong evidence that those states consider such expenditures to be economically reasonable in light of the positive educational benefits they should generate.[1183]

455. We also agree with the Joint Board that the legislative history supports our finding that the installation and maintenance of internal connections are eligible for support. We note that, in its Joint Explanatory Statement, Congress explicitly refers repeatedly to "classrooms."[1184] Reading these references, we conclude that Congress contemplated extending discounted service all the way to the individual classrooms of a school, not merely to a single computer lab in each school or merely to the schoolhouse door.[1185]

456. As further evidence that Congress intended that the installation and maintenance of internal connections be eligible for universal service support, the Joint Board noted that, during Senate consideration of this provision, Senators Snowe and Rockefeller emphasized that, at the time, 35 percent of public schools had access to the Internet, but only

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[1180] Recommended Decision, 12 FCC Rcd at 332. Based on the *McKinsey Report* as adjusted, we estimate that the full cost of the telecommunications-related portion of internal connections, prior to the application of discounts, would be more than $4 billion. McKinsey and Company, *Connecting K-12 Schools to the Information Superhighway* at 57 (1995) (*McKinsey Report).*

[1181] *See* http://www.netday96.com (website with general information on netdays). NetDay is a grassroots volunteer effort to wire schools so they can network their computers and connect them to the Internet. Labor and material are provided by volunteer support from companies, unions, parents, teachers, students, and school employees.

[1182] *See, e.g.,* Ohio DOE comments at 2-3; South Central Bell Telephone Company (Tennessee) General Subscriber Services Tariff at A42.1.2 (effective February 20, 1996).

[1183] *See, e.g.,* Russell Rothstein, Networking K-12 Schools: Architecture Models and Evaluation of Costs and Benefits (1996) (unpublished masters thesis, Massachusetts Institute of Technology) (discussing the educational benefits of using technology and the networked multimedia service) (*Rothstein Thesis).* The *Rothstein Thesis* was filed on the record in this proceeding when the author testified before the Joint Board on June 19, 1996.

[1184] *See* Joint Explanatory Statement at 132-33.

[1185] Recommended Decision, 12 FCC Rcd at 332.

three percent of classrooms were connected to the Internet.[1186] As the Joint Board also observed,[1187] in his discussion of the Snowe-Rockefeller-Exon-Kerrey amendment, Senator Rockefeller cited the lack of funds to buy computer equipment as one reason for the lack of access to the Internet, but added that the expense of connecting classrooms to one another represents another significant barrier to gaining access.[1188]

457. As the Joint Board recognized, finding internal connections ineligible for support would skew the choices of schools and libraries to favor technologies such as wireless, in which internal connections are inseparable from external connection, over technologies such as conventional wireline, in which a distinction can be (and for unrelated reasons sometimes is) drawn, even when the latter would be the more economically efficient choice. We conclude, consistent with numerous letters that we have received from the schools and libraries communities,[1189] that schools, school districts, and libraries are in the best position and should, therefore, be empowered to make their own decisions regarding which technologies would best accommodate their needs, how to deploy those technologies, and how to best integrate these new opportunities into their curriculum. Moreover, a situation in which certain technologies were favored over others would violate the overall principle of competitive neutrality adopted for purposes of section 254.[1190] Of course, we by no means

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[1186] Recommended Decision, 12 FCC Rcd at 333 (*citing* 141 Cong. Rec. S7978, S7981 (daily ed. June 8, 1995)). More recent figures indicate that, at the present time, approximately 65 percent of public schools have access to the Internet and approximately 14 percent of public school classrooms are connected to the Internet. *See* U.S. Department of Education, National Center for Education Statistics, *Advanced Telecommunications in U.S. Public Elementary and Secondary Schools, Fall 1996*(February 1997).

[1187] Recommended Decision, 12 FCC Rcd at 333.

[1188] 141 Cong. Rec. at S7981 (daily ed. June 8, 1995):

> [A]nother reason [for lack of access to the Internet], which becomes more serious as schools do scrape together the money for the one-time expense of buying equipment, is their inability to pay excessive rates to hook into those services. It is one thing to have the computer on the table or the desk. It is another to have that hooked up to the wall *and then through that wall to the other wall.* That is expensive.

Id. (emphasis added).

[1189] *See, e.g.*, Letter from Affordable Telecommunications for Rural American's Coalition to Comr. Susan Ness, FCC, dated April 11, 1997; Letter from Ted L. Triplett, Regional Education Service Agency, II, to Comr. Susan Ness, FCC, dated April 16, 1997; Letter from Gerald A. Mathias, Hampshire County Board of Education, to Comr. Susan Ness, dated April 17, 1997; Letter from Arnold C. Plank, Torrance Unified School District, to Comr. Susan Ness, dated April 30, 1997.

[1190] Recommended Decision, 12 FCC Rcd at 334.

wish to discourage wireless technologies where they are the efficient solution; data suggest that wireless connections would already be the more efficient eligible "telecommunications service" for connecting schools to telephone carrier offices or Internet service providers for more than 25 percent of public schools.[1191] Nothing on the record or in the statute would appear to prevent schools and libraries from purchasing wireless technologies at a discount and using them for internal connections, and a wireless system can be used for both internal and external connections. If schools and libraries could not receive discounts from telecommunications carriers for internal connections through inside wiring, but could receive discounts from telecommunications carriers if using wireless service for this purpose, however, the discount mechanism would favor wireless technologies over wireline service. Because Congress intended to encourage competitive neutrality among technologies[1192] and because this is an explicit requirement under section 254(h)(2)(A), we conclude that Congress also intended to permit schools purchasing wireline intraschool connections to purchase those services from telecommunications carriers at discounted prices.[1193]

458. We reject the claims of GTE and Motorola that our program will favor wireline or other telecommunications carriers[1194] because we are also providing discounts for services provided by wireless carriers. Moreover, in addition to our direct coverage of non-telecommunications carriers below,[1195] we expect non-telecommunications carriers to compete to provide internal connections to schools and libraries by entering partnerships and joint ventures with telecommunications carriers. For example, an electrician or a cable television system operator might offer to subcontract with an IXC to provide, respectively, internal connections or a local area network (LAN) connecting schools in a district or libraries in a library system. Thus, without regard to our decision below to provide discounts for services to eligible schools and libraries provided by non-telecommunications carriers,[1196] we conclude that our decision to provide discounts for services to eligible schools and libraries provided by telecommunications carriers is competitively neutral and will facilitate, not impede, the development of the internal connections market. Moreover, particularly in light of the legislative history, providing discounts for service to eligible schools and libraries provided by

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[1191] *McKinsey Report* at 58.

[1192] *See supra* section III (discussing adoption of competitive neutrality as a principle). *See also infra* section X.F.2. for a discussion of section 254(h)(2).

[1193] Recommended Decision, 12 FCC Rcd at 334.

[1194] GTE comments at 93-95; Motorola comments at 15.

[1195] *See infra* section X.F.

[1196] *See infra* section X.F.

telecommunications carriers strongly serves the public interest.[1197]

459. Extent of Support for Internal Connections. We agree with SBC and Citizen Utilities that it is often difficult to distinguish between "internal connections," which would be eligible for discounts, and computers and other peripheral equipment, which would not be eligible.[1198] While we also concur with AirTouch's observation that the Joint Board did not articulate a detailed "workable standard," we reject AirTouch's assertion that the distinction between internal connections eligible for support and services or equipment not eligible for support is "administratively unworkable."[1199] We find that a given service is eligible for support as a component of the institution's internal connections only if that piece of equipment is necessary to transport information all the way to individual classrooms. That is, if the service is an essential element in the transmission of information within the school or library, we will classify it as an element of internal connections and will permit schools and libraries to receive a discount on its installation and maintenance for which the telecommunications carrier may be compensated from universal service support mechanisms.

460. Applying this standard, we agree with the Joint Board's recommendation that support should be available to fund discounts on such items as routers, hubs, network file servers,[1200] and wireless LANs and their installation and basic maintenance because all are needed to switch and route messages within a school or library.[1201] Their function is solely to transmit information over the distance from the classroom to the Internet service provider, when multiple classrooms share the use of a single channel to the Internet service provider. We also agree with Oracle that "internal connections" would include the software that file servers need to operate and that we should place no specific restrictions on the size, i.e., type, of the internal connections network covered.[1202] Consistent with the Joint Board's finding that the installation and maintenance of internal connections are services,[1203] we conclude that support should be available to fund discounts on basic installation and maintenance services necessary to the operation of the internal connections network. We expressly deny support,

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[1197] A similar analysis applies in the Internet access context.

[1198] Citizens Utilities comments at 15; SBC comments at 45-46.

[1199] AirTouch reply comments at 30.

[1200] These items are the pieces of telecommunications equipment that the *McKinsey Report* identified as elements of the internal connections it priced in its cost estimates. *See McKinsey Report* at 58.

[1201] Recommended Decision, 12 FCC Rcd at 332.

[1202] Oracle comments at 16.

[1203] Recommended Decision, 12 FCC Rcd at 330-31.

however, to finance the purchase of equipment that is not needed to transport information to individual classrooms. A personal computer in the classroom, for example, does not provide such a necessary transmission function and would not be supported, consistent with the Joint Board's recommendation.[1204] A personal computer is not intended to transmit information over a distance, unless it is programmed to operate as a network switch or network file server. Thus, a personal computer could not be installed, maintained, purchased, or leased at a discount for which the seller or lessor would be compensated from universal service support mechanisms, unless it was used solely as a switch or file server. Similarly, universal service support discounts will not be financed for fax machines or modems because they are not necessary to transmit information to individual classrooms. We also find that no universal service support will be provided for asbestos removal.

461. We recognize that some providers may offer a bundled package of services and facilities, only some of which are eligible for support. For example, some file servers may also be built to provide storage functions to supplement personal computers on the network. We do not intend to provide a discount on such CPE capabilities. We could address the issue of bundling by allowing the bundling of eligible and ineligible services, but requiring that reimbursement not be requested for more than the fair market value of the eligible services. Such an approach would be similar to our handling of discounts when eligible schools and libraries and other, ineligible entities form consortia through which to receive their telecommunications services.[1205] In the case of service bundling, however, neither party to the transaction would have any incentive to ensure that the allocation of costs established in the contract was fair and nonarbitrary. In consortia, by contrast, the members each have an incentive to ensure that they are assigned a fair allocation of costs.

462. We conclude that eligible schools and libraries may not receive support for contracts that provide only a single price for a package that bundles services eligible for support with those that are not eligible for support. Schools and libraries may contract with the same entity for both supported and unsupported services and still receive support only if any purchasing agreement covering eligible services specifically prices those services separately from ineligible services so that it will be easy to identify the purchase amount that is eligible for a discount. Consequently, where the service provider indicates separately what the prices of the eligible and ineligible offerings would be if offered on an unbundled basis, the service provider must indicate the "price reduction" that would apply if the services are purchased together. The provider would then be able to apply the appropriate universal service support discount to the price for the eligible services after reducing the price to reflect

[1204] Recommended Decision, 12 FCC Rcd at 332.

[1205] *See infra* section X.C.2.

a proportional amount of the "price reduction" the provider applied.[1206]

463. Finally, we agree with those commenters asserting that schools and libraries should not be forced by the provider of internal connections to select a particular provider for other services.[1207] With respect to wireline internal connections, or inside wiring, we have previously addressed the rights of carriers and customers to carrier-installed inside wiring.[1208] In the *Detariffing Recon. Order*, we restricted the carriers' ability to interfere with customer access to inside wiring.[1209] We observe that the federal antitrust laws prohibit any provider of internal connections with monopoly power from using that power to distort competition in related markets.[1210] Similarly, we agree with WinStar that, if a carrier does not currently charge for the use of internal connections, it should not be entitled to begin charging for such use if the school or library selects an alternate service provider,[1211] because that would distort the competitive neutrality supported strongly by both Congress and the Joint Board.[1212]

C. Discount Methodology

1. Background

464. Section 254(b)(5) establishes the principle that "[t]here should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service."[1213] Section 254(b)(1) states that "[q]uality services should be available at just,

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[1206] For example, if a provider offered to sell a school an eligible service for $10.00 and an ineligible service for $20.00, but also offered the eligible and ineligible services as a bundle for $24.00, this would indicate that the provider was offering a $6.00, or 20%, price reduction. Therefore, the school could treat $10.00 - 20% = $8.00 as eligible for universal service support.

[1207] *See, e.g.,* MFS comments at 32-33; WinStar comments at 7-9; WorldCom comments at 29.

[1208] *See* Detariffing the Installation and Maintenance of Inside Wiring, *Memorandum Opinion and Order,* 1 FCC Rcd 1190, 1195 (1986) (*Detariffing Recon. Order*), *further recon.,* 3 FCC Rcd 1719 (1988), *remanded, National Association of Regulatory Utility Commissioners v. FCC*, 880 F.2d 422 (D.C. Cir. 1989), *on remand, Third Report and Order,* 7 FCC Rcd 1334 (1992).

[1209] *Detariffing Recon. Order,* 1 FCC Rcd at 1195.

[1210] *See, e.g., United States v. AT&T,* 552 F. Supp. 131, 161-63 (D.D.C. 1982).

[1211] WinStar comments at 8-9.

[1212] *See supra* section III.

[1213] 47 U.S.C. § 254(b)(5).

reasonable, and affordable rates."[1214] Furthermore, section 254(e) directs that any universal service support "should be explicit and sufficient to achieve the purposes of [section 254]."[1215] Any mechanisms we adopt to support discounts on eligible services for schools and libraries must be consistent with these principles.

465. With respect to the support mechanisms designed for universal service to schools and libraries, section 254(h)(1)(B) gives even more specific instruction:

> All telecommunications carriers serving a geographic area shall, upon a bona fide request for any of its services that are within the definition of universal service under subsection (c)(3), provide such services to elementary schools, secondary schools, and libraries for educational purposes at *rates less than the amounts charged for similar services to other parties.* The *discount* shall be an amount that the Commission, with respect to interstate services,and the States, with respect to intrastate services, determine is *appropriate and necessary to ensure affordable access to and useof such services by such entities.*[1216]

466. Congress emphasized affordability in the Joint Explanatory Statement when it stated that "[n]ew subsection (h) of section 254 is intended to ensure that . . . elementary and secondary school classrooms, and libraries have affordable access to modern telecommunications services that will enable them to provide . . . educational services to all parts of the Nation."[1217] In addition, in the floor debates on the Snowe-Rockefeller-Exon-Kerrey amendment, Senator Snowe stated that, under section 254(h)(1)(B), "[b]y changing the basis for the discount from incremental cost to an amount necessary to ensure an affordable rate, the Federal-State joint board in conjunction with the FCC and the States have some flexibility to target discounts *based on a community's ability to pay.*"[1218]

467. In the Recommended Decision, the Joint Board made several recommendations regarding the discount methodology. First, regarding the pre-discount price, which it defined

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[1214] 47 U.S.C. § 254(b)(1).

[1215] 47 U.S.C. § 254(e).

[1216] 47 U.S.C. § 254(h)(1)(B) (emphasis added).

[1217] Joint Explanatory Statement at 132.

[1218] 141 Cong. Rec. S7984 (June 8, 1995) (emphasis added).

as the price of services charged to schools and libraries prior to the application of a discount,[1219] the Joint Board recommended that schools and libraries be required to seek competitive bids for all services eligible for section 254(h) discounts.[1220] The Joint Board also recommended that eligible schools and libraries be permitted to aggregate their needs for eligible services with those of both eligible and ineligible entities.[1221]

468. Second, the Joint Board recommended that the Commission adopt a matrix that provides discounts from 20 percent to 90 percent, to apply to all telecommunications services, Internet access, and internal connections, with the range of discounts correlated to the indicators of economic disadvantage and high cost for schools and libraries.[1222] The Joint Board also recommended that the Commission set an annual cap on spending for schools and libraries of $2.25 billion per year with a trigger mechanism, so that if expenditures in any year reach $2 billion, rules of priority would come into effect.[1223]

469. Third, the Joint Board recommended that the Commission consider how the cost of providing services varied between geographic areas when setting discounts for schools and libraries.[1224] The Joint Board suggested that it may be appropriate for the Commission to define high cost areas by considering the unseparated loop costs of the ILEC.[1225] The Joint Board noted that other methods for determining high cost may also be appropriate and encouraged the Commission to seek additional information and parties' comments on this issue prior to adopting rules.[1226]

470. Fourth, the Joint Board recommended that the Commission provide a greater discount to economically disadvantaged schools and libraries for services within the definition of universal service.[1227] The Joint Board recommended that the level of economic disadvantage for schools be determined by eligibility for the national school lunch program,

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[1219] Recommended Decision, 12 FCC Rcd at 361.

[1220] Recommended Decision, 12 FCC Rcd at 363.

[1221] Recommended Decision, 12 FCC Rcd at 392.

[1222] Recommended Decision, 12 FCC Rcd at 366, 370.

[1223] Recommended Decision, 12 FCC Rcd at 368, 370.

[1224] Recommended Decision, 12 FCC Rcd at 372.

[1225] Recommended Decision, 12 FCC Rcd at 372.

[1226] Recommended Decision, 12 FCC Rcd at 372.

[1227] Recommended Decision, 12 FCC Rcd at 372.

or some other appropriate measure.[1228] Because libraries do not participate in the national school lunch program, the Joint Board recommended that libraries be eligible for greater discounts if they are located in a school district serving economically disadvantaged students, but that the Commission seek additional information and parties' comments on what measures of economic disadvantage may be readily available to identify economically disadvantaged libraries.[1229]

471. Fifth, the Joint Board addressed the relationship between any discount the Commission adopts and existing special rates that schools or libraries may already have negotiated with carriers or secured through state action.[1230] With regard to special rates mandated by a state, the Joint Board stated that, to the extent a state desires to supplement the discount financed through the federal universal service fund by permitting its schools and libraries to apply the discount to the special low rates, the Commission should fund the state's actions consistent with sections 254(h) and 254(f).[1231] With regard to private contract rates, the Joint Board recommended that the Commission not require any schools or libraries that had secured a low price on service to relinquish that rate simply to secure a slightly lower price produced by including a large amount of federal support.[1232]

472. Finally, the Joint Board recommended that the Commission adopt a mechanism to fund discounts on both interstate and intrastate services at the levels discussed above, and that a state's setting intrastate discounts at least equal to the discounts on interstate services be a condition of federal universal service support for schools and libraries in that state.[1233]

2. Discussion

a. Pre-Discount Price

473. In General. As the Joint Board recognized, the pre-discount price is the price of services to schools and libraries prior to the application of a discount.[1234] That is, the pre-

[1228] Recommended Decision, 12 FCC Rcd at 374.

[1229] Recommended Decision, 12 FCC Rcd at 376.

[1230] Recommended Decision, 12 FCC Rcd at 377.

[1231] Recommended Decision, 12 FCC Rcd at 377.

[1232] Recommended Decision, 12 FCC Rcd at 377.

[1233] Recommended Decision, 12 FCC Rcd at 378.

[1234] Recommended Decision, 12 FCC Rcd at 361.

discount price is the total amount that carriers will receive for the services they sell to schools and libraries: the sum of the discounted price paid by a school or library and the discount amount that the carrier can recover from universal service support mechanisms for providing such services.

474. Because we seek to ensure that pre-discount prices are established at the lowest "amounts charged [by providers] for similar services to other parties,"[1235] we must reject the arguments of EDLINC that we use a nationwide average pre-discount price.[1236] Using a nationwide average pre-discount price would almost certainly result in forcing providers in higher cost areas to provide service to schools and libraries without being able to recover their costs. In addition, using a nationwide average pre-discount price would permit providers in lower cost areas to recover more than their total cost of providing services to schools and libraries within their service areas.

475. Competitive Environment. As the Joint Board recognized, in a competitive marketplace, schools and libraries will have both the opportunity and the incentive to secure the lowest price charged to similarly situated non-residential customers for similar services, and providers of telecommunications services, Internet access, and internal connections will face competitive pressures to provide that price.[1237]

476. We agree with the Joint Board that we should encourage schools and libraries to aggregate their demand with others to create a consortium with sufficient demand to attract competitors and thereby negotiate lower rates or at least secure efficiencies, particularly in lower density regions.[1238] We concur with the Joint Board's finding that aggregation into consortia can also promote more efficient shared use of facilities to which each school or library might need access.[1239] For example, where five nearby schools might each seek use of a 1.5 Mbps link once a week, it might be more efficient for them to share a single 1.5 Mbps connection to a network server than for each school to purchase its own 1.5 Mbps link.

477. Thus, we agree with the Joint Board's objectives in recommending that eligible schools and libraries be permitted to aggregate their telecommunications needs with those of both eligible and ineligible entities, including health care providers and commercial banks,

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[1235] 47 U.S.C. § 254(h)(1)(B).

[1236] *See* EDLINC comments at 6.

[1237] Recommended Decision, 12 FCC Rcd at 362.

[1238] Recommended Decision, 12 FCC Rcd at 362.

[1239] Recommended Decision, 12 FCC Rcd at 362.

because the benefits from such aggregation outweigh the administrative difficulties.[1240] We are concerned, however, that permitting large private sector firms to join with eligible schools and libraries to seek prices below tariffed rates could compromise both the federal and state policies of non-discriminatory pricing. Thus, although we find congressional support for permitting eligible schools and libraries to secure prices below tariffed rates, we find no basis for extending that exception to enable all private sector firms to secure such prices.

478. For this reason, as described in more detail below, we adopt a slightly modified version of the Joint Board's recommendation. We conclude that eligible schools and libraries will generally qualify for universal service discounts and prices below tariffed rates for interstate services, only if any consortia they join include only other eligible schools and libraries, rural health care providers, and public sector (governmental) customers. Eligible schools and libraries participating in consortia that include ineligible private sector members will not be eligible to receive universal service discounts unless the pre-discount prices of any interstate services that such consortia receive from ILECs are generally tariffed rates. We conclude that this approach satisfies both the purpose and the intent of the Joint Board's recommendation because it should allow the consortia containing eligible schools and libraries to aggregate sufficient demand to influence existing carriers to lower their prices and should promote efficient use of shared facilities. This approach also includes the large state networks upon which many schools and libraries rely for their telecommunications needs among the entities eligible to participate in consortia. We recognize that state laws may differ from federal law with respect to non-discriminatory pricing requirements. We also recognize, however, that should states so choose, they may impose the same structure as detailed herein, on the basis of similar policies at the state level.

479. We agree with the Joint Board that, ideally, eligible schools and libraries will take full advantage of the competitive marketplace and the opportunity to aggregate with others to secure cost-based, pre-discount prices for the services they need.[1241] We anticipate that competition to serve eligible schools and libraries will be vigorous in most markets. As NTIA observed to the Joint Board, "the most efficient use of the universal service fund support system should be promoted through the use of market-based techniques wherever possible."[1242] Schools and libraries may not yet be fully aware of how the 1996 Act is forcing the opening of markets that were previously served by monopolies. For example, many schools and libraries may be unaware of the studies concluding that wireless service providers

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[1240] Recommended Decision, 12 FCC Rcd at 362.

[1241] Recommended Decision, 12 FCC Rcd at 362.

[1242] Letter from Secretary Richard W. Riley, Department of Education, Secretary Daniel R. Glickman, Department of Agriculture, and Secretary Michael Kantor, Department of Commerce, to Chrm. Reed E. Hundt, FCC, dated October 7, 1996, at 7 (*transmitting* NTIA further comments) (NTIA NPRM submission).

may offer the best prices to 27 percent of all schools for connecting to the Internet.[1243] Schools and libraries may also not know that cable systems currently pass more than 90 percent of homes nationwide,[1244] and thus that cable operators may offer to provide telecommunications service or access to the Internet over their networks, particularly where the cable operators have previously installed an institutional network (I-net) to all schools and libraries as part of a local cable television franchise agreement.

480. We, therefore, adopt the Joint Board's finding that fiscal responsibility compels us to require that eligible schools and libraries seek competitive bids for all services eligible for section 254(h) discounts.[1245] Competitive bidding is the most efficient means for ensuring that eligible schools and libraries are informed about all of the choices available to them. Absent competitive bidding, prices charged to schools and libraries may be needlessly high, with the result that fewer eligible schools and libraries would be able to participate in the program or the demand on universal service support mechanisms would be needlessly great. We discuss, in greater detail below, the procedures for undertaking the competitive bidding process.[1246]

481. Some commenters ask us to clarify a number of points regarding competitive bidding. First, in response to a number of commenters,[1247] we note that the Joint Board intentionally did not recommend that the Commission require schools and libraries to select the lowest bids offered but rather recommended that the Commission permit schools and libraries "maximum flexibility" to take service quality into account and to choose the offering or offerings that meets their needs "most effectively and efficiently,"[1248] where this is consistent with other procurement rules under which they are obligated to operate.[1249] We concur with this policy, noting only that price should be the primary factor in selecting a bid. When it specifically addressed this issue in the context of Internet access, the Joint Board only recommended that the Commission require schools and libraries to select the most cost-

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[1243] *See McKinsey Report* at 58 (1995).

[1244] *See* Paul Kagan Associates, *Kagan Media Index* (1995).

[1245] Recommended Decision, 12 FCC Rcd at 363. *See supra* section X.D.2. for a further discussion of competitive bidding.

[1246] *See infra* section X.D.2.

[1247] *See, e.g.,* AOL comments at 8; Community Colleges comments at 16-17; iSCAN comments at 3-4; Nextel comments at 11-12; PacTel comments at 49-50; U S West comments at 47-48; GI reply comments at 5.

[1248] *See* Recommended Decision, 12 FCC Rcd at 321.

[1249] *See* Recommended Decision, 12 FCC Rcd at 321. *Cf.* Recommended Decision, 12 FCC Rcd at 323.

effective supplier of access.[1250] By way of example, we also note that the federal procurement regulations (which are inapplicable here) specify that in addition to price, federal contract administrators may take into account factors including the following: prior experience, including past performance; personnel qualifications, including technical excellence; management capability, including schedule compliance; and environmental objectives.[1251] We find that these factors form a reasonable basis on which to evaluate whether an offering is cost-effective.

482. Other commenters suggest that we go beyond the Joint Board's recommendation and require schools to take other actions. For example, Nextel and WinStar ask us to require schools and libraries to require providers to bid on services on an unbundled basis, because a combination of smaller providers may be able to offer them better prices than those who can offer them the entire package.[1252] Teleport and NCTA ask us to require schools to limit bids to a single round of sealed bids.[1253] TCI asks that we require vendors to provide their qualifications.[1254] We endorse the objectives that these suggestions seek to achieve; we find, nonetheless, that Commission action is not required because many individual schools and libraries operate under state and local procurement rules designed to achieve those objectives.[1255] Thus, although we do not impose bidding requirements, neither do we exempt eligible schools or libraries from compliance with any state or local procurement rules, such as competitive bidding specifications, with which they must otherwise comply.

483. In response to the concerns of GTE and SBC that existing Commission rules concerning interstate service prevent them from offering rates below their generally available tariffed rates in competitive bidding situations to establish pre-discount rates,[1256] we make the following clarifications. First, our policies on ILEC pricing flexibility apply only to interstate services. The ILECs' abilities to offer intrastate services in competitive bidding situations will be governed by the relevant state public utility commission policies. Second, we find

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[1250] Recommended Decision, 12 FCC Rcd at 323.

[1251] *See* Federal Acquisition Regulation 15.602(a)(2).

[1252] Nextel comments at 12-13; WinStar comments at 3.

[1253] NCTA comments at 22; Teleport comments at 9.

[1254] TCI comments at 10.

[1255] *See* Letter from J. Andrew Magpantay, ALA, to Mark Nadel, Common Carrier Bureau, dated April 25, 1997, at 1-2 and att. 1.

[1256] GTE comments at 97-98; SBC comments at 39-41.

that ILECs will be free under sections 201(b) and 254 to participate in certain competitive bidding opportunities with rates other than those in their generally tariffed offerings. More specifically, they will be free, under section 201(b) of the Act, to offer different rates to consortia that consist solely of governmental entities, eligible health care providers, and schools and libraries eligible for preferential rates under section 254. Thus, we hereby designate communications to organizations, such as schools and libraries and eligible health care providers, eligible for preferential rates under section 254 as a class of communications eligible for different rates, notwithstanding the nondiscrimination requirements of section 202(a). Congress has expressly granted an exemption to section 202(a)'s prohibition against discrimination for these classes of communications.[1257] Thus, ILECs will be free to offer differing, including lower, rates to consortia consisting of section 254-eligible schools and libraries, eligible health care providers, state schools and universities, and state and local governments. These pre-discount rates will be generally available to all eligible members of these classes under tariffs filed with this Commission.[1258] The schools and libraries eligible for discounts under section 254 would then receive the appropriate universal service discount off these rates. Third, ILECs may obtain further freedom to participate in competitive bidding situations as a result of decisions we make in the *Access Charge Reform Proceeding*. In the *Third Report and Order* in the *Access Charge Reform Proceeding*, we will determine whether to permit ILECs to provide targeted offerings in response to competitive bidding situations once certain competitive thresholds are met.[1259] We conclude that this regime, which includes a prohibition against resale of these services, best furthers the explicit congressional directive of providing preferential rates to eligible schools and libraries with a minimum of public interest harm arising from limiting the availability of prediscount rates to these classes.

484. Lowest Price Charged to Similarly Situated Non-Residential Customers for Similar Services. In competitive markets, we anticipate that schools and libraries will be offered competitive, cost-based prices that will match or beat the cost-based prices paid by similarly situated customers for similar services. We concur, however, with the Joint Board that, to ensure that a lack of experience in negotiating in a competitive telecommunications service market does not prevent some schools and libraries from receiving such offers, we should require that a carrier offer services to eligible schools and libraries at prices no higher than the lowest price it charges to similarly situated non-residential customers for similar

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[1257] 47 U.S.C. §§ 254(b)(6), 254(h)(1)(A), and 254(h)(1)(B) (preferential rates for eligible schools, libraries, and health care providers); 47 U.S.C. § 201(b) (special rates for governmental entities). *See also* AT&T Communications Tariff F.C.C. No. 16, Transmittal No. 1876, 5 FCC Rcd 700, 701 (1990) (finding that section 201(b) creates an exception to the general prohibition against discriminatory pricing found in section 202(a), permitting carriers to offer special rates for governmental entities).

[1258] AT&T Communications Tariff F.C.C. No. 16, Transmittal No. 1876, 5 FCC Rcd 700, 701 para. 13 (1990).

[1259] *Access Charge Reform Order* at section I.

services (hereinafter "lowest corresponding price").[1260]

485. We also adopt the Joint Board's recommendation to use the lowest corresponding price as an upper limit on the price that carriers can charge schools and libraries in non-competitive markets, as well as competitive markets, so that eligible schools and libraries can take advantage of any cost-based rates that other customers may have negotiated with carriers during a period when the market was subject to actual, or even potential, competition.[1261] We conclude that requiring providers to charge their lowest corresponding price would impose no unreasonable burden, even on non-dominant carriers,[1262] because all carriers would be able to receive a remunerative price for their services. We clarify that, for the purpose of determining the lowest corresponding price, similar services would include those provided under contract as well as those provided under tariff.

486. Section 254(h)(1)(B) requires telecommunications carriers to make services available to all schools and libraries in any geographic area the carriers serve.[1263] We share the Joint Board's concern that, if "geographic area" were interpreted to mean the entire state, any firm providing telecommunications services to any school or library in a state would have to be willing to serve any other school or library in the state.[1264] We also agree with the Joint Board that an expansive interpretation of geographic area might discourage new firms beginning to offer service in one portion of a state from doing so due to concern that they would have to serve all other areas in that state.[1265] For example, electric utilities might be discouraged from offering telecommunications services to schools if there were a requirement that once they had offered service to one school or library system in their state of operation, any other school or library in the state could also demand telecommunications services at rates comparable to those the utility offered to its initial "test" community, even if it were not equipped to offer telecommunications services in those other markets.

487. We concur, therefore, with the Joint Board's recommendation that geographic area (hereinafter referred to as geographic service area) be defined as the area in which a telecommunications carrier is seeking to serve customers with any of its services covered by

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[1260] Recommended Decision, 12 FCC Rcd at 363.

[1261] Recommended Decision, 12 FCC Rcd at 364.

[1262] WinStar comments at 12.

[1263] *See* 47 U.S.C. § 254(h)(1)(B).

[1264] Recommended Decision, 12 FCC Rcd at 364.

[1265] Recommended Decision, 12 FCC Rcd at 364.

section 254(h)(1)(B).[1266] We do not limit here the area in which a telecommunications carrier or a subsidiary or affiliate owned or controlled by it can choose to provide service.[1267] We also agree with the Joint Board that telecommunications carriers be required to offer schools and libraries services at their lowest corresponding prices throughout their geographic service areas.[1268] Moreover, we agree with the Joint Board's recommendation that, as a condition of receiving support, carriers be required to certify that the price they offer to schools and libraries is no greater than the lowest corresponding price based on the prices the carrier has previously charged or is currently charging in the market.[1269] This obligation would extend, for example, to competitive LECs, wireless carriers, or cable companies, to the extent that they offer telecommunications for a fee to the public.[1270] We share the Joint Board's conclusion that Congress intended schools and libraries to receive the services they need from the most efficient provider of those services.[1271]

488. We clarify that a provider of telecommunications services, Internet access, and internal connections need not offer the same lowest corresponding price to different schools and libraries in the same geographic service area if they are not similarly situated and subscribing to a similar set of services.[1272] Providers may not avoid the obligation to offer the lowest corresponding price to schools and libraries for interstate services, however, by arguing that none of their non-residential customers are identically situated to a school or library or that none of their service contracts cover services identical to those sought by a school or library. Rather, we will only permit providers to offer schools and libraries prices above the prices charged to other similarly situated customers when those providers can show that they face demonstrably and significantly higher costs to serve the school or library seeking service. EDLINC asks us to prohibit carriers from distinguishing among customers based on anything other than traffic volumes in comparing costs.[1273] We decline to adopt this approach because we find it reasonable for rates to reflect any factors that clearly and significantly affect the cost of service, including mileage from switching facility and length of contract. We would

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[1266] Recommended Decision, 12 FCC Rcd at 364.

[1267] *See infra* section F for a discussion of affiliates.

[1268] Recommended Decision, 12 FCC Rcd at 365.

[1269] Recommended Decision, 12 FCC Rcd at 364.

[1270] Recommended Decision, 12 FCC Rcd at 365.

[1271] Recommended Decision, 12 FCC Rcd at 365.

[1272] PacTel comments at 49.

[1273] EDLINC comments at 8-9.

expect state commissions to employ these same standards when evaluating differences between customers of intrastate services.

489. If the services sought by a school or library include significantly lower traffic volumes or their provision is significantly different from that of another customer with respect to any other factor that the state public service commission has recognized as being a significant cost factor, then the provider will be able to adjust its price above the level charged to the other customer to recover the additional cost incurred so that it is able to recover a compensatory pre-discount price. We also recognize that costs change over time and thus, as PacTel and USTA observe, compensatory rates would not necessarily result if a provider were required to charge the same price it had charged many years ago.[1274] We will establish a rebuttable presumption that rates offered within the previous three years are still compensatory. As Citizens Utilities recognizes, we also would not require a provider to match a price it offered to a customer who is receiving a special regulatory subsidy or that appeared in a contract negotiated under very different conditions, if that would force the provider to offer services at a rate below Total-Service Long-Run Incremental Cost (TSLRIC).[1275]

490. We also adopt the Joint Board's recommendation that, if they believe that the lowest corresponding price is unfairly high or low, schools, libraries, and carriers should be permitted to seek recourse from the Commission, regarding interstate rates, and from state commissions, regarding intrastate rates.[1276] Eligible schools and libraries may request a lower rate if they believe the rate offered by the carrier is not the lowest corresponding price. Carriers may request higher rates if they believe that the lowest corresponding price is not compensatory. We find that permitting eligible schools and libraries to seek such recourse permits sufficient flexibility to address U S West's concern that establishing the lowest corresponding price may sometimes be difficult.[1277]

491. We reject MCI's proposal that we set the lowest corresponding price based on TSLRIC.[1278] We agree with the Joint Board's analysis that using TSLRIC would not be practical, given the limited resources of schools and libraries to participate in lengthy

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[1274] PacTel comments at 48-49; USTA comments at 37-39.

[1275] Citizens Utilities comments at 17-18.

[1276] Recommended Decision, 12 FCC Rcd at 364.

[1277] U S West comments at 48.

[1278] MCI comments at 17.

negotiations, arbitration, or litigation.[1279] We also clarify that PacTel is correct that the tariffed rate would represent a carrier's lowest corresponding price in a geographic area in which that carrier has not negotiated rates that differ from the tariffed rate, and that we are not requiring carriers to file new tariffs to reflect the discounts we adopt here for schools and libraries.[1280] EDLINC asserts that tariffed rates in non-competitive markets may treat customers in non-competitive markets unfairly because non-competitive markets are more likely to be the most costly markets to serve.[1281] We find, however, that customers in higher cost markets served by large ILECs are likely to benefit already from geographically averaged tariffed rates.

b. Discounts

492. The Act requires the Commission, with respect to interstate services, and the states, with respect to intrastate services, to establish a discount on designated services provided to eligible schools and libraries. Pursuant to section 254(h)(1)(B), the discount must be an amount that is "appropriate and necessary to ensure affordable access to and use of" the services pursuant to section 254(c)(3).[1282] The discount must take into account the principle set forth in section 254(b)(5) and mandated in section 254(d) that the federal universal service support mechanisms must be "specific, predictable, and sufficient.[1283] We agree with the Joint Board's recommendation that we adopt a percentage discount mechanism, adjusted for schools and libraries that are defined as economically disadvantaged and those schools and libraries located in areas facing particularly high prices for telecommunications service.[1284] In particular, we concur with the Joint Board's recommendation that we adopt discounts from 20 percent to 90 percent for all telecommunications services, Internet access, and internal connections, with the range of discounts correlated to indicators of economic disadvantage and high prices for schools and libraries.[1285]

493. We agree with the Joint Board's recommendation that we adopt rules that provide support to eligible schools and libraries through a percentage discount mechanism

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[1279] Recommended Decision, 12 FCC Rcd at 365.

[1280] PacTel comments at 50.

[1281] EDLINC comments at 9.

[1282] 47 U.S.C. § 254(h)(1)(B).

[1283] 47 U.S.C. §§ 254(b)(5) and 254(d).

[1284] Recommended Decision, 12 FCC Rcd at 366.

[1285] Recommended Decision, 12 FCC Rcd at 366.

rather than providing a package of free services or block grants to states because we find that discounts would better assure efficiency and accountability.[1286] Requiring schools and libraries to pay a share of the cost should encourage them to avoid unnecessary and wasteful expenditures because they will be unlikely to commit their own funds for purchases that they cannot use effectively. A percentage discount also encourages schools and libraries to seek the best pre-discount price and to make informed, knowledgeable choices among their options, thereby building in effective fiscal constraints on the discount fund. We find that this approach is consistent with many state and local requirements because such requirements generally require schools and libraries to seek competitive bids for procurements above a specified minimum level.[1287]

494. Discounts in High Cost Areas. We also adopt the Joint Board's recommendation that, to make service more affordable to schools and libraries, we offer greater support to those located in high cost areas than to those in low cost areas.[1288] We reject, however, arguments advanced by ALA and EDLINC that the discount matrix recommended by the Joint Board does not adequately acknowledge the substantial disparity between telecommunications prices in different locations.[1289] Although the discount matrices we adopt do not make the prices schools and libraries pay for telecommunications services in high and low cost areas identical, we find that the matrices distribute substantially more funds, particularly on a per-capita basis, to reduce prices paid by schools and libraries in areas with higher telecommunications prices than they do to reduce prices in areas in which such prices are already relatively low. The greater price reduction in terms of total dollar amounts for schools and libraries in high cost areas results primarily because the discount rates are based on percentages that lead proportionally to more funds flowing to those schools and libraries facing proportionally higher prices.[1290]

495. This principle can be illustrated using an example provided by EDLINC.[1291] In that example, one school in the state of Washington faces undiscounted monthly T-1 charges

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[1286] Recommended Decision, 12 FCC Rcd at 367.

[1287] *See* Recommended Decision, 12 FCC Rcd at 367.

[1288] Recommended Decision, 12 FCC Rcd at 372.

[1289] ALA comments at 7; EDLINC comments at 16.

[1290] Those in high cost areas that receive higher discount rates than those in low cost areas also will be able to apply those discounts to the cost of internal connections, even though there is no evidence that such costs are likely to be greater in high cost areas than in low cost areas. We find that the combination of these additional factors further ameliorates the concerns of schools and libraries in high cost areas.

[1291] EDLINC comments at 16.

of $125.00 per month, while a similar school elsewhere in the state faces undiscounted monthly T-1 charges of $2100.00 per month. Assuming that both are eligible for a 90 percent discount, the school facing relatively low prices would receive 0.9 x $125.00 = $112.50 in support, while the school facing relatively high prices would receive 0.9 x $2100.00 = $1890.00 in support. Thus, considering the total dollar amount of support, the school located in the high cost area receives almost 17 times as much support as the school located in the low cost area. In addition, the average number of students in schools in low cost, urban areas exceeds the number in high cost, rural areas.[1292] In fact, the per-capita support figures show that students in high cost rural schools, like the ones in the EDLINC example, would receive 23 times as much support per student as those in the low cost school. Thus, while this high cost school's monthly charges are reduced to $210.00 per month, compared to the $12.50 per month paid by the low cost school, the support per student that the high cost school would receive would be 23 times that received by the low cost school.

496. Although the discount mechanism we adopt does not equalize prices in all areas nationwide, it makes telecommunications service in the areas with relatively high prices substantially more affordable to the schools and libraries in those areas. We find that a mechanism that may provide as much as 23 times more support per capita to a school or library in a high cost area than it does to one in a low cost area is providing substantially more of a discount to the former. We also note that some eligible schools and libraries in high cost areas will benefit, at least temporarily, from the high cost assistance that eligible telecommunications carriers serving them will receive. Although high cost support will only be targeted to a limited number of services, none of which are advanced telecommunications and information services,[1293] many schools and libraries will connect to the Internet via voice-grade access to the PSTN. Furthermore, whereas the Joint Board presumed that such support would only be targeted to residential and single-line businesses,[1294] in the short term, our decision diverges from that result and permits support for multiline businesses.[1295] We agree with the Joint Board that this position on support for schools and libraries in high cost areas is consistent with our other goal of providing adequate support to disadvantaged schools while keeping the size of the total support fund no larger than necessary to achieve this goal.[1296] The Joint Board recommended, and we agree, that the nominal percentage discount levels should be more sensitive to how disadvantaged a school or library is than whether it is

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[1292] *See* National Center for Education Statistics, *Digest of Education Statistics 1995* (October 1995) at table 58, p. 70 and table 87, p. 95.

[1293] *See supra* section VII.

[1294] Recommended Decision, 12 FCC Rcd at 371.

[1295] *See supra* section VII.C.4.

[1296] Recommended Decision, 12 FCC Rcd at 373-374.

located in a high cost service area.[1297] We conclude, therefore, that the additional support for schools and libraries in high cost areas provided in the matrices we adopt[1298] is "appropriate and necessary to ensure affordable access" to schools and libraries as directed by section 254(h)(1)(B).[1299]

497. Discounts for Economically Disadvantaged Schools and Libraries. We adopt the Joint Board's recommendation that we establish substantially greater discounts for the most economically disadvantaged schools and libraries.[1300] We recognize that such discounts are essential if we are to make advanced technologies equally accessible to all schools and libraries. We agree, however, with the Joint Board[1301] and several commenters[1302] that not even the most disadvantaged schools or libraries should receive a 100 percent discount. We recognize that even a 90 percent discount -- and thus a 10 percent co-payment requirement -- might create an impossible hurdle for disadvantaged schools and libraries that are unable to allocate any of their own funds toward the purchase of eligible discounted services, and thus could increase the resource disparity among schools.[1303] We conclude, however, that even if we were to exempt the poorest schools from any co-payment requirement for telecommunications services, a 100 percent discount would not have a dramatically greater impact on access than would a 90 percent discount, because we are not providing discounts on the costs of the additional resources, including computers, software, training, and maintenance, which constitute more than 80 percent of the cost of connecting schools to the information superhighway.[1304] We share the Joint Board's belief that the discount program must be structured to maximize the opportunity for its cost-effective operation, and that, for the reasons noted above, requiring a minimal co-payment by all schools and libraries will help realize that goal.[1305]

[1297] Recommended Decision, 12 FCC Rcd at 370 (discussing Joint Board's proposed discount matrix).

[1298] *See infra* section X.C.2.d.

[1299] 47 U.S.C. § 254(h)(1)(B).

[1300] Recommended Decision, 12 FCC Rcd at 367.

[1301] Recommended Decision, 12 FCC Rcd at 367. *Contra* NTIA NPRM submission (recommending a 100 percent discount on a particular package of services).

[1302] *See, e.g.,* Ameritech comments at 20; BellSouth comments at 34; Washington UTC comments at 6. *Contra* NTIA NPRM submission (recommending a 100 percent discount on a particular package of services).

[1303] *See, e.g.,* Ameritech comments at 20; BellSouth comments at 34; Washington UTC comments at 6.

[1304] *See McKinsey Report* at 28.

[1305] Recommended Decision, 12 FCC Rcd at 367.

498. Discount Matrix. The Joint Board considered the approximate size of the fund resulting from a matrix assigning discounts to a school or library based upon its level of economic disadvantage and its location. After substantial deliberation, the Joint Board recommended the following matrix of percentage discounts:

DISCOUNT MATRIX		COST OF SERVICE (estimated % in category)		
		low cost (67%)	mid-cost (27%)	highest cost (5%)
HOW DISADVANTAGED? based on % of students in the national school lunch program (estimated % of US schools in category)	< 1 (3%)	20	20	25
	1-19 (31%)	40	45	50
	20-34 (19%)	50	55	60
	35-49 (15%)	60	65	70
	50-74 (16%)	80	80	80
	75-100 (16%)	90	90	90

499. In fashioning a discount matrix, the Joint Board sought to ensure that the greatest discounts would go to the most economically disadvantaged schools and libraries, with an equitable progression of discounts being applied to the other categories within the parameters of 20 percent to 90 percent discounts.[1306] We find that the proposed matrix, subject to minor modifications, achieves these goals. We will discuss those modifications and the matrix we adopt in more detail below.[1307]

500. We further find that the matrix we adopt below satisfies the directive of section 254(h)(1)(B) that we establish a discount that is "appropriate and necessary to ensure affordable access to and use of such services by such entities."[1308] Given that no school or library could afford access without also having the resources to purchase computers and software and train teachers or librarians, we find that no dollar figure or percentage discount can make access "affordable" in any absolute sense. Nor do we interpret section 254(h)(1)(B)

[1306] Recommended Decision, 12 FCC Rcd at 370.

[1307] *See infra* section X.C.2.d.

[1308] 47 U.S.C. § 254(h)(1)(B).

as requiring us to discern such absolute figures or percentages. Rather, we conclude that the Joint Board correctly established its recommended percentages based on a careful balancing of the costs and benefits of providing those levels of support. Accordingly, we reject the suggestion that the Joint Board failed to meet a statutory obligation to demonstrate that these recommended percentages are based on some objective, quantifiable measure of affordability.[1309]

c. Identifying High Price Areas

501. Recognizing that schools and libraries in high cost areas[1310] will confront relatively higher barriers to connecting to the Internet and maintaining other communications links, the Joint Board proposed a discount matrix that granted schools and libraries located in higher cost areas greater percentage discounts.[1311] Although its discount matrix used low, mid, and high cost categories based on embedded cost ARMIS data of carriers,[1312] the Joint Board did not recommend a way to identify those schools and libraries facing higher costs, except to suggest that we might consider the unseparated loop costs collected under ARMIS.[1313] The Joint Board understood that, because such embedded cost data were already maintained by the Commission, it would be relatively easy to set thresholds that would divide areas into high and low cost based on the cost data of the ILEC serving the area. The Joint Board also recognized that unseparated loop costs were a good proxy for local service prices.

502. The Joint Board suggested that other methods for determining high cost might be appropriate and encouraged the Commission to seek additional comment on the issue,[1314]

[1309] *See* ALTS comments at 18.

[1310] When it described a "high cost" portion of the support mechanisms for schools and libraries, the Joint Board actually sought to make additional support available to those schools and libraries that would otherwise have to pay relatively higher "prices" for specific telecommunications services. The Joint Board used "cost," however, because the price charged by the service provider would be a cost to the school or library, and the Joint Board also assumed that for a given telecommunications service, the price of that service "is based primarily on the cost [to the carrier of providing] the service in the area." *See* Recommended Decision, 12 FCC Rcd at 371 (*citing* Senate Working Group NPRM further comments at 2-3).

[1311] As reflected in the discount matrix in section X.D.3.b *supra*, the discounts provided to the most disadvantaged schools and libraries -- those eligible for 80 or 90 percent discounts -- do not vary based on the level of prices they face.

[1312] *See* Recommended Decision, 12 FCC Rcd at 370.

[1313] Recommended Decision, 12 FCC Rcd at 372. Unseparated costs are the full costs of the loop, including the portions allocated to both the federal and state jurisdictions. *See supra* section VII.C.3. for a discussion of ARMIS data.

[1314] Recommended Decision, 12 FCC Rcd at 372.

which we did in the Recommended Decision Public Notice.[1315] As a result, we have considered several alternative methods, which were not before the Joint Board at the time of its deliberations. These methods include the use of cost data generated by the forward-looking cost methodologies that proponents have filed for use in determining support for high cost areas;[1316] density pricing zones; availability of advanced services;[1317] tariffed T-1 prices for connections to an Internet service provider;[1318] and whether schools and libraries are located in rural or urban areas.[1319] For the reasons discussed below, we conclude that we will classify eligible schools and libraries as high or low cost depending on whether they are located in a rural or an urban area, respectively.

503. Each of the alternatives presented by the commenters for predicting whether schools and libraries will face high prices possesses flaws. For example, while unseparated ARMIS loop costs may often accurately predict local rates outside of high cost areas, they would not reflect whether subscribers must pay toll rates or transport mileage charges to reach an Internet service provider, two factors that significantly influence the actual costs facing schools and libraries seeking connection to the Internet. Density pricing zones[1320] and two-part classification approaches such as urban/rural[1321] and premium/non-premium rates based on availability of advanced services[1322] also fail to account for the toll rates and transport mileage charges that high cost subscribers may need to pay to reach an Internet service provider. Using the unseparated loop costs generated by a forward-looking cost methodology suffers from the same deficiencies as the ARMIS cost data and also ignores the averaging of local

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[1315] Recommended Decision Public Notice at 1-2.

[1316] *See* ITC comments at 8; SBC comments at 9; and USTA comment at 37.

[1317] *See, e.g.,* Brooklyn Public Library comments at 406; New York DOE comments at 4.

[1318] *See, e.g.,* PacTel comments at 51.

[1319] *See, e.g.,* Colorado LEHTC comments at 2.

[1320] The Commission allowed geographically deaveraged rate zones, called density pricing zones, for special access and switched transport of DS1 and DS3 services in Expanded Interconnection with Local Telephone Company Facilities and Amendment of the Part 69 Allocation of General Support Facility Costs, *Report and Order and Notice of Proposed Rulemaking*, CC Docket Nos. 91-141 and 92-222, 7 FCC Rcd 7369, 7454-57 (1992) (*Expanded Interconnection Order*); *Second Report and Order and Third Notice of Proposed Rulemaking*, 8 FCC Rcd 7374 (1993). The Commission also required states to establish rate deaveraging for interconnection and unbundled elements over a minimum of three rate zones, stating that "states may, but need not, use the existing density-related rate zones." *Local Competition Order,* 11 FCC Rcd at 15,882-83. The portions of the *Local Competition Order* dealing with interconnection rates have been stayed by court order. *See supra* n.7.

[1321] *See, e.g.,* Colorado LEHTC comments at 2.

[1322] *See* Brooklyn Public Library comments at 5, 6; New York DOE comments at 4.

rates commonly mandated by state regulators. Using the retail price of a T-1 circuit linking a school or library to the nearest point of presence of the most cost-effective Internet service provider has the apparent advantage of being based on the actual prices that schools and libraries pay[1323] and reflects all distance-sensitive charges that a school or library would face. We must reject this approach, however, for two reasons. The relative level of T-1 rates may not reflect the relative price for services other than 1.5 Mbps service. More significantly, there is no record in this proceeding regarding what benchmarks of T-1 circuit prices we could use to divide schools and libraries into appropriate cost categories.

504. Given this set of reasonable but imperfect approaches to determining high cost for schools and libraries, we conclude that we should select the classification system that is least burdensome to schools, libraries, and carriers. We will therefore identify high cost schools and libraries as those located in rural, as opposed to urban, areas. After careful consideration, we conclude that identifying whether a school or library is located in a rural or urban area is a relatively easy method for schools and libraries to use, reasonably matches institutions facing the highest prices for telecommunications services with the highest discounts, and imposes no burden on carriers. Adoption of this approach is also consistent with the Joint Board's intention that the method selected for determining high cost should calibrate the cost of service in a "reasonable, practical, and minimally burdensome manner."[1324] We also conclude that, for purposes of the schools and libraries discount program, rural areas should be defined in accordance with the definition adopted by the Department of Health and Human Services' Office of Rural Health Policy (ORHP/HHS). ORHP/HHS uses the Office of Management and Budget's (OMB) Metropolitan Statistical Area (MSA) designation of metropolitan and non-metropolitan counties (or county equivalents), adjusted by the most currently available Goldsmith Modification, which identifies rural areas within large metropolitan counties.[1325]

505. Adoption of this definition of rural areas is consistent with the approach adopted in the health care section of this Order[1326] and represents a simple approach for schools and libraries to determine eligibility for an incremental high cost discount. OMB's list of metropolitan counties and the list of additional rural areas within those counties identified by the Goldsmith Modification are readily available to the public. Eligible schools and libraries will need only to consult those lists to determine whether they are located in

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[1323] Governor of Guam comments at 11-12; PacTel comments at 51.

[1324] Recommended Decision, 12 FCC Rcd at 372.

[1325] *See infra* section XI, which contains a detailed discussion of OMB's designation of metropolitan and non-metropolitan counties and the Goldsmith Modification in the context of health care.

[1326] *See infra* section XI.

rural areas for purposes of the universal service discount program. In addition to being simple to administer, basing the high cost discount on a school's or library's location in a rural area is a reasonable approach for determining which entities should receive the high cost discount. The distance between customers and central offices, and the lower volumes of traffic served by central offices in rural areas, combine to create less affordable telecommunications rates.[1327]

506. We conclude that all of the alternatives would likely be more administratively burdensome for schools, libraries, and carriers than using the urban/rural distinction. For example, ARMIS data is adjusted every year, which might lead to frequent changes in a school's or library's eligibility for a high cost discount, forcing those institutions that might otherwise be near the cutoff points to review the cost data every year and likely generating many calls to the carriers. In addition, this approach could create uncertainty for those institutions inclined to consider multi-year expenditures. While the definitions of urban and rural areas might also change, these classifications are not adjusted annually and it is likely that schools or libraries would already be aware of the changes in their areas leading to their reclassification from urban to rural (or rural to urban). Density pricing zones do not exist in all areas, and in areas where they do exist, the zones could change at irregular intervals, and it is not clear how one would recognize the "premium" rates which Brooklyn Public Library suggests should form the basis of the greater discount afforded to schools and libraries located in high cost areas.[1328] The use of forward-looking cost models, meanwhile, is not practical here because the data will not be readily accessible to schools and libraries. Finally, the record does not include the data to enable us to select the T-1 prices to divide schools and libraries into categories of those facing high, mid, or low T-1 prices, nor does it support the use of the price of a 1.5 Mbps channel as a surrogate for all services schools and libraries may select. In any event, schools and libraries may choose to purchase services other than T-1.

507. Because we adopt the use of categories of rural and urban to determine a school's or library's eligibility for a high cost discount, we conclude that there should be only two categories of schools and libraries. Because schools and libraries will be categorized as either rural (high cost) or urban (low cost), the "mid-cost" category recommended by the Joint Board is no longer relevant. We find that a matrix of two columns is also somewhat simpler

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[1327] *See* Colorado LEHTC comments at 1.

[1328] *See* Brooklyn Public Library comments at 4-6. Brooklyn Public Library proposes a two-part formula for determining the high cost discount. First, Brooklyn Public Library recommends calculating local baseline rates for all services. In areas in which certain advanced services, such as frame relay, are not available and the subscriber pays a "premium" rate for these advanced services, that "premium" rate should be discounted to the local baseline rate. Second, Brooklyn Public Library recommends that the adjusted baseline rate be compared against a national average of local baseline rates to calculate an additional discount. These two discounts would comprise the high cost discount. *Id.*

to use and thus, we modify the discount matrix recommended by the Joint Board to have two columns (i.e., "urban" and "rural") as opposed to three.

d. Identifying Economically Disadvantaged Schools and Libraries

508. Schools. We agree with the Joint Board's recommendation that we measure a school's level of poverty in a manner that is minimally burdensome, ideally using data that most schools already collect.[1329] Although the Joint Board concluded that the national school lunch program meets this standard, it suggested that the Commission also consider other approaches that would be both minimally burdensome for schools and accurate measures of poverty.[1330]

509. Based on our review of the comments filed in response to the Recommended Decision Public Notice, we agree with the Joint Board that using eligibility for the national school lunch program to determine eligibility for a greater discount accurately fulfills the statutory requirement to ensure affordable access to and use of telecommunications and other supported services for schools.[1331] As noted by commenters, the national school lunch program determines students' eligibility for free or reduced-price lunches based on family income, which is a more accurate measure of a school's level of need than a model that considers general community income.[1332] In addition, the national school lunch program has a well-defined set of eligibility criteria, is in place nationwide, and has data-gathering requirements that are familiar to most schools. We agree with USTA[1333] that use of an existing and readily available model, such as the national school lunch program, will be both relatively simple and inexpensive to administer.

510. We conclude that a school may use either an actual count of students eligible for the national school lunch program or federally-approved alternative mechanisms[1334] to

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[1329] Recommended Decision, 12 FCC Rcd at 374.

[1330] Recommended Decision, 12 FCC Rcd at 374.

[1331] Recommended Decision, 12 FCC Rcd at 375.

[1332] AFT comments at 3; Washington UTC comments at 7.

[1333] USTA comments at 36.

[1334] *See* 34 C.F.R. § 200.28(a)(2)(i)(B) . Under this regulation, enacted pursuant to Title I of the Improving America's Schools Act of 1994, private schools that do not have access to the same poverty data that public schools use to count children from low-income families may use comparable data "(1) [c]ollected through alternative means such as a survey" or "(2) [f]rom existing sources such as AFDC or tuition scholarship

determine the level of poverty for purposes of the universal service discount program. Alternative mechanisms may prove useful for schools that do not participate in the national school lunch program or schools that participate in the lunch program but experience a problem with undercounting eligible students (e.g., high schools, rural schools, and urban schools with highly transient populations).[1335] Schools that choose not to use an actual count of students eligible for the national school lunch program may use only the federally-approved alternative mechanisms contained in Title I of the Improving America's Schools Act, which equate one measure of poverty with another.[1336] These alternative mechanisms permit schools to choose from among existing sources of poverty data a surrogate for determining the number of students who would be eligible for the national school lunch program. A school relying upon one of these alternative mechanisms could, for example, conduct a survey of the income levels of its students' families. We conclude that only federally-approved alternative mechanisms, which rely upon actual counts of low-income children, provide more accurate measures of poverty and less risk of overcounting, than other methods suggested by some commenters that merely approximate the percentage of low-income children in a particular area.[1337] Although the undercounting problem experienced by some schools in their use of the national school lunch program was raised by commenters after the Recommended Decision and is, therefore, an issue that the Joint Board did not consider, we conclude that our determination to permit the use of federally-approved alternative mechanisms is consistent with the Joint Board's recommendation that the method for measuring economic disadvantage be minimally burdensome and use data that schools already collect.[1338] We also note that federally-approved alternative mechanisms have been endorsed in existing regulations,[1339] have been the product of a negotiated rulemaking in which schools participated, and are in use already by some schools.[1340]

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programs." 34 C.F.R. § 200.28(a)(2)(i)(B)(1) and (2). We note, however, that AFDC will be altered significantly by the recently-enacted welfare reform law. *See* The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, P.L. 104-193. *See also* section VIII for a discussion of other means-tested qualification standards.

[1335] *See, e.g.,* AFT comments at 3 (stating that "some high schools, rural schools, [and] urban schools with highly transient populations" experience undersubscription to the national school lunch program, resulting in an inaccurate count of eligible students); EDLINC comments at 12 (stating that "high school students have been historically undercounted and there may also be undercounting of transient populations").

[1336] *See* 34 C.F.R. § 200.28(a)(2)(i)(B)(1) and (2).

[1337] *See* Great City Schools comments at 4.

[1338] Recommended Decision, 12 FCC Rcd at 374.

[1339] 34 C.F.R. § 200.28(a)(2)(i)(B).

[1340] AFT comments at 4.

511. We, therefore, adopt neither GTE's suggestion that we use U.S. Census Bureau data[1341] nor CEDR's proposal that we consider the value of owner-occupied housing or median household income and population density[1342] to determine a school's level of poverty because these methods may burden many schools with the task of collecting additional data. We also find that such methods, to the extent that they measure the wealth of a school's surrounding area rather than the wealth of a school's students, are less accurate than the federally-approved alternative mechanisms. Thus, a school located in an economically disadvantaged community that does not draw its students from that community, such as a magnet, private, or parochial school, might receive a greater discount than other schools serving a similar student population.

512. Libraries. The Joint Board recommended that, in the absence of a better proposal, a library's degree of poverty should be measured based on how disadvantaged the schools are in the school district in which the library is located. Under this plan, a library would receive a level of discount representing the average discount, based on both public and non-public schools, offered to the schools in the school district in which it is located. Finding that this was "a reasonable method of calculation because libraries are likely to draw patrons from an entire school district and this method does not impose an unnecessary administrative burden on libraries," the Joint Board recommended that the Commission seek additional comment on this and other measures of poverty that would be minimally burdensome for libraries.[1343]

513. Based on our review of the comments received in response to the Recommended Decision, we adopt the Joint Board's recommendation and conclude that a library's level of poverty be calculated on the basis of school lunch eligibility in the school district in which the library is located, with one modification. We conclude that it would be less administratively burdensome and, therefore, would impose lower administrative costs, to base a library's level of poverty on the percentage of students eligible for the national school lunch program only in the public school district in which the library is located. To require the administrator to average the discounts applicable to both public and non-public schools would impose an unnecessary administrative burden without an offsetting benefit to libraries.

514. We agree with commenters that library service areas and school districts often are not identical, and that libraries may not have ready access to information that would allow

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[1341] *See* GTE comments at 106-107.

[1342] *See* CEDR comments at 15.

[1343] Recommended Decision, 12 FCC Rcd at 376.

them to coordinate their service areas with the applicable school district lunch data.[1344] We are not, however, requiring libraries to coordinate their service areas with school districts. The procurement officer responsible for ordering telecommunications and other supported services for a library or library system need only obtain from the school district's administrative office the percentage of students eligible for the national school lunch program in the district in which the library is located. We conclude, therefore, that adopting this approach will not impose an unnecessary administrative burden on libraries.

515. ALA notes that residents of towns that do not have schools generally must send their children to other towns to attend school.[1345] We find that the discount for a library in such a circumstance would be based on an average of the percentage of students eligible for the school lunch program in each of the school districts in which the town's children attend school.

516. Moreover, ALA recommends using the poverty rate, based on U.S. Census Bureau data, of families in a library's service area to determine that library's level of poverty. Specifically, ALA proposes an alternate discount matrix in which libraries' levels of poverty are calculated based on the percentage of families at or below the poverty line within a one-mile[1346] or two-mile radius[1347] of a library branch or facility. ALA argues that using residential poverty data, which is based on U.S. Census Bureau data, reflects more accurately the level of poverty in a library's service area.[1348] Colorado Department of Education likewise asserts that the one-mile radius should provide a standard basis for calculating the poverty level for all libraries.[1349] We conclude, however, that there is not sufficient evidence in the record to support claims that the poverty level within either a one- or two-mile radius of a

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[1344] *See, e.g.,* ALA comments at 4; Colorado LEHTC comments at 2; NCLIS comments at 10; Washington Library comments at 3.

[1345] Dummer, New Hampshire, for example, has a public library but sends its children to school in Milan Village for grades one through six and in Berlin for grades seven through twelve. Letter from Carol Henderson, ALA, to Irene Flannery, Common Carrier Bureau, dated March 27, 1997 at 1 (ALA March 27 *ex parte*).

[1346] *See* ALA reply comments at 5; Letter from Carol C. Henderson, ALA, to Mark Nadel, Common Carrier Bureau, dated March 17, 1997 at Att. 2 (ALA March 17 *ex parte*). *See also* Letter from Nancy Bolt, Colorado Department of Education, to Mark Nadel, Common Carrier Bureau, dated March 27, 1997 at 2 (Colorado Department of Education March 27 *ex parte*).

[1347] Letter from Andrew Magpantay, ALA, to Irene Flannery, Common Carrier Bureau, dated May 1, 1997 at 2-3 (ALA May 1 *ex parte*).

[1348] ALA May 1 *ex parte* at 1.

[1349] Letter from Nancy Bolt, Colorado Department of Education, to Mark Nadel, Common Carrier Bureau, dated March 28, 1997 at 2 (Colorado Department of Education March 28 *ex parte).*

library branch or facility accurately reflects the poverty level throughout a library's entire service area. We also decline to adopt the approach initially presented by ALA in their comments, referred to as the "LSTA poverty factor," which would require libraries to calculate the percentage of families at or below the poverty line throughout their service areas.[1350] We conclude that because the record does not demonstrate that libraries routinely collect such data, imposing such a requirement would be administratively burdensome for most libraries.

517. We also conclude that using school lunch eligibility to calculate the poverty level of both schools and libraries addresses Colorado Department of Education's concern that equity exist between schools and libraries.[1351] That is, because school lunch eligibility data measures the percentage of students within 185 percent of the poverty line, the program that we adopt herein will ensure that both schools and libraries are afforded discounts based on the same measure of poverty. Under ALA's proposal, however, libraries would have received discounts based on the percentage of families at or below the poverty line, while schools would have received discounts based on the percentage of students within 185 percent of the poverty line. We conclude, therefore, that libraries will not be disadvantaged by adoption of the Joint Board's recommendation to use school lunch eligibility to determine the level of poverty for both schools and libraries. We also conclude that using the same measure of poverty for both schools and libraries will lower the administrative costs associated with the discount program described herein.

518. In addition, we do not adopt Seattle's suggestion that libraries be required to aggregate discounts from the three closest public schools,[1352] nor do we adopt the recommendations of Pennsylvania Library Ass'n and Mississippi that we use per-capita market value of the local real estate market or per capita income levels in each community to determine a library's level of poverty.[1353] We conclude that these approaches would impose a greater administrative burden on libraries than would requiring them to obtain the school district's school lunch eligibility data insofar as data pertaining to local market values or income levels may be less accessible to libraries than school lunch eligibility data obtained from a local school district's administrative office. For these reasons, we conclude that relying on school lunch eligibility data will provide an accurate measure of economic disadvantage and will impose a minimal administrative burden on libraries.

[1350] *See* ALA comments at 8-10.

[1351] Colorado Department of Education March 28 *ex parte* at 2.

[1352] Seattle comments at 3.

[1353] Mississippi comments at 5; Pennsylvania Library Ass'n comments at 1.

519. Levels of Poverty. We agree with the Joint Board's recommendation that we adopt a step function to define the level of discount available to schools and libraries, based on the level of poverty in the areas they serve.[1354] A step function will define multiple levels of discount based on the percentage of students eligible for the national school lunch program. We also agree with the Joint Board's recommendation that the number of steps for determining discounts applied to telecommunications and other supported services should be based principally on the existing Department of Education categorization of schools eligible for the national school lunch program.[1355] We conclude that this approach is reasonable because the national school lunch program is based on family income levels. CNMI proposes that the matrix reflect additional considerations, such as per-capita income,[1356] but does not elaborate on how such a matrix would be constructed. Because CNMI's suggested approach would require schools and libraries to collect additional data with which they are not likely to be familiar and it is not clear that use of such data would further the goals of the Act, we conclude that including factors other than level of poverty and location in a high cost area in the discount matrix would be unreasonably burdensome.

520. For purposes of administering the school lunch program, the Department of Education places schools in five categories, based on the percentage of students eligible for free or reduced-price lunches: 0-19 percent; 20-34 percent; 35-49 percent; 50-74 percent; and 75-100 percent.[1357] Consistent with the Joint Board's recommendation, we adopt the percentage categories used by the Department of Education for schools and libraries, and we also establish a separate category for the least economically disadvantaged schools and libraries, i.e., those with less than one percent of their students eligible for the national school lunch program.[1358] Schools and libraries in the "less than one percent" category should have comparatively greater resources within their existing budgets to secure affordable access to services even with lower discounted rates. We, therefore, adopt the following matrix for schools and libraries:

[1354] Recommended Decision, 12 FCC Rcd at 376.

[1355] Recommended Decision, 12 FCC Rcd at 376.

[1356] CNMI comments at 15-17.

[1357] *See* National Data Research Center (1995), *Schools and Staffing Surveys, 1993-94* (unpublished tabulations commissioned by the U.S. Department of Education for the National Assessment of Title I).

[1358] Recommended Decision, 12 FCC Rcd at 376.

SCHOOLS AND LIBRARIES DISCOUNT MATRIX		DISCOUNT LEVEL	
HOW DISADVANTAGED?		urban discount (%)	rural discount (%)
% of students eligible for national school lunch program[1359]	(estimated % of US schools in category)		
< 1	3	20	25
1-19	31	40	50
20-34	19	50	60
35-49	15	60	70
50-74	16	80	80
75-100	16	90	90

521. We conclude that this approach fulfills our obligation to ensure that telecommunications and other supported services are provided to schools and libraries at "rates less than the amounts charged for similar services to other parties."[1360] We also conclude that the step function used to define the entries in the discount matrix addresses CSE's concern that we provide greater levels of support to schools and libraries that have the greatest need.[1361]

522. Self-Certification Requirements. We agree with the Joint Board's recommendation that, when ordering telecommunications and other supported services, the procurement officer responsible for ordering such services for a school or library must certify its degree of poverty to the universal service administrator. For eligible schools ordering telecommunications and other supported services at the individual school level, which we anticipate will be primarily non-public schools, the procurement officer ordering such services must certify to the universal service administrator the percentage of students eligible in that

[1359] Based on 1993 National Data Research Center data.

[1360] 47 U.S.C. § 254(h)(1)(B).

[1361] CSE comments at 12.

school for the national school lunch program.[1362] For eligible libraries ordering telecommunications and other supported services at the individual library level, which we anticipate will be primarily single-branch libraries, the procurement officer ordering such services must certify to the universal service administrator the percentage of students eligible for the national school lunch program in the school district in which the library is located.

523. For eligible schools ordering telecommunications and other supported services at the school district or state level, we agree with the Joint Board's recommendation that we minimize the administrative burden on schools while at the same time ensuring that the individual schools with the highest percentages of economically disadvantaged students receive the deepest discounts for which they are eligible.[1363] We, therefore, adopt the Joint Board's recommendation to require the procurement officer for each school district or state applicant to certify to the universal service administrator the percentage of students in each of its schools that is eligible for the national school lunch program,[1364] calculated either through an actual count of eligible students or through the use of a federally-approved alternative mechanism, as discussed above.[1365] If the level of discount were instead calculated for the entire school district, a school serving a large percentage of students eligible for the national school lunch program that was located in a school district comprised primarily of more affluent schools would not benefit from the level of discount to which it would be entitled if discounts had been calculated on an individual school basis. The school district or state may decide to compute the discounts on an individual school basis or it may decide to compute an average discount; in either case, the state or the district shall strive to ensure that each school receives the full benefit of the discount to which it is entitled.

524. For libraries ordering telecommunications and other supported services at the library system level, we agree with commenters asserting that library systems should be able to compute discounts on either an individual branch basis or based on an average of all branches within the system.[1366] Specifically, if individual branches within a library system are located in different school districts, we conclude that the procurement officer responsible for

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[1362] As discussed *supra* in section X.C.2.d, a school may opt to use either an actual count of students participating in the national school lunch program or a federally-approved alternative mechanism designed to calculate the percentage of students eligible for the national school lunch program to determine its level of economic disadvantage for purposes of universal service support.

[1363] Recommended Decision, 12 FCC Rcd at 375.

[1364] Recommended Decision, 12 FCC Rcd at 375.

[1365] *See infra* section X.D.2.

[1366] *See, e.g.,* ALA comments at 9; Brooklyn Public Library comments at 8; Washington Library comments at 5.

ordering telecommunications and other supported services for the library system must certify to the administrator the percentage of students eligible for the national school lunch program in each of the school districts in which its branches are located. This requirement is consistent with the treatment of school districts, as discussed above, and encourages library systems to strive to ensure that a branch located within a less affluent area of an otherwise more affluent library system will receive the greater discounts targeted to economically disadvantaged institutions. The library system may decide to compute the discounts on an individual branch library basis or it may decide to compute an average discount; in either case, the library system shall strive to ensure that each library receives the full benefit of the discount to which it is entitled.

525. Similarly, for library consortia ordering telecommunications and other supported services, we conclude that each consortium's procurement officer must certify to the administrator the percentage of students eligible for the national school lunch program for the school district in which each of its members is located. Each library consortium may compute the discounts on the basis of the school district in which each consortium member is located or it may compute an average discount; in either case, each library consortium shall strive to ensure that each of its members receives the full benefit of the discount to which it is independently entitled.

526. Additional Considerations. We do not adopt several other proposals related to measuring economic disadvantage. We decline to adopt EDLINC's proposal that we establish a "hardship appeals process" for a school or library in great need that does not, according to the estimation of that school or library, receive an adequate discount.[1367] We agree with AFT that our priority must be to establish the basic schools and libraries discount program. Whether a hardship appeals process as described by EDLINC is necessary can be addressed when the Joint Board reviews the discount program in 2001 or sooner, if necessary. In the interim, we are satisfied that the discount program that we adopt, reaching as high as 90 percent for the most disadvantaged schools and libraries, will provide sufficient support. We also do not adopt Ohio DOE's suggestion that we establish a trust fund for disadvantaged schools and libraries to ensure that sufficient funds are available when such entities are ready to participate in the universal service discount program.[1368] We conclude that such a fund is not necessary because eligible schools and libraries that are not ready to participate in the discount program in the first year simply may participate in subsequent years. As discussed above, the cap applies on an annual basis, and funds are not committed beyond the present funding year. Moreover, any funds not used in a particular year will be carried forward to the next year and will be added to the $2.25 billion annual cap, if demand exists.

[1367] EDLINC comments at 15.

[1368] Ohio DOE comments at 6.

527. Although Delaware PSC's contention that Delaware will be a "net loser" under the schools and libraries discount structure because it is likely to contribute more money than it will receive may be correct,[1369] the Joint Board urged us to provide greater discounts to economically disadvantaged schools and libraries. The record in this proceeding also supports such discounts.[1370] Moreover, the "net loser" argument is not compelling because the universal service discount program is tailored to provide support to eligible schools and libraries, not states. Because we must ensure that telecommunications and other supported services are provided to schools and libraries at "rates less than the amounts charged for similar services to other parties,"[1371] we also do not adopt Cincinnati Bell's proposal that the calculation of discounts for schools and libraries be left to the states.[1372] We note that states are free to establish their own discount programs under state-funded programs, but such programs will not receive federal universal service support.[1373]

528. Finally, we adopt Ameritech's suggestion that information about the universal service discounts for which individual schools and libraries are eligible, based on their level of poverty and rural status, be posted on the same website as that on which schools' and libraries' RFPs will be posted, as discussed below.[1374] We conclude that posting this information on the website created by the universal service administrator for the schools and libraries discount program may assist providers seeking to provide eligible services to a school or library by providing potentially useful information about a prospective customer. If a school district submits school lunch eligibility information for each school, or a library system submits school lunch eligibility information for each branch, then the universal service administrator is instructed to post that information. If a school district chooses to submit only district-wide poverty information or a library system chooses to provide only system-wide poverty information, then that is the information that will be posted by the universal service administrator. We also adopt Ameritech's suggestion that the actual

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[1369] Delaware PSC comments at 1-2, 4-6.

[1370] *See, e.g.,* ALA comments at 2; Alliance for Community Media comments at 10; EDLINC comments at 3; Illinois State Library comments at 1; Mississippi comments at 5; Owen J. Roberts School District comments at 1; PacTel comments at 51-52; Teleport comments at 9; Urban League comments at 3-4; Universal Service Alliance comments at 9; USTA comments at 36; Washington Library comments at 2; Atlanta Board of Education reply comments at 1; Fort Frye School District reply comments at 1.

[1371] 47 U.S.C. § 254(h)(1)(B).

[1372] Cincinnati Bell comments at 16.

[1373] *See infra* section X.C.2.f.

[1374] *See infra* section X.D.2.

discounts be calculated and posted on the website, as discussed below.[1375]

e. Cap and Trigger

(1) Cap Level

529. We adopt the Joint Board's recommendation that there be an annual cap of $2.25 billion on universal service support for schools and libraries at this time.[1376] We also adopt the Joint Board's determination that, if the annual cap is not reached due to limited demand from eligible schools and libraries, the unspent funds will be available to support discounts for schools and libraries in subsequent years.[1377] We modify the Joint Board's recommendation slightly, however, to limit collection and spending for the period through June 1998, in light of both the need to implement the necessary administrative processes and the need to make the fund sufficiently flexible to respond to demand. Thus, for the funding period beginning January 1, 1998 and ending June 1998, the administrator will only collect as much as required by demand, but in no case more than $1 billion. Furthermore, if less than $2.25 billion is spent in calendar year 1998, then no more than half of the unused portion of the funding authority for calendar year 1998 shall be spent in calendar year 1999. Similarly, if the amount allocated in calendar years 1998 and 1999 is not spent, no more than half of the unused portion of the funding authority for these two years shall be spent in calendar year 2000.

530. We note that, unlike Commission programs for high cost and low-income assistance,[1378] which are based on existing programs with historical data for estimating how much support these programs may require, there is no existing program to help us estimate the cost of funding the support program we adopt under the Snowe-Rockefeller-Exon-Kerrey amendment. While the *McKinsey Report*,[1379] the *KickStart Initiative*,[1380] and other data

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[1375] *See infra* section X.D.2.

[1376] Recommended Decision, 12 FCC Rcd at 370.

[1377] Recommended Decision, 12 FCC Rcd at 370.

[1378] *See supra* sections VII (high cost) and VIII (low-income).

[1379] *See generally McKinsey Report.*

[1380] *KickStart Initiative: Connecting America's Communities to the Information Superhighway* (1996) (*KickStart Initiative*).

sources[1381] attempt to estimate
the cost of providing support to schools and libraries, the utility of these reports is limited insofar as they attempt to estimate costs in an area where technologies are developing rapidly and demand is inherently difficult to predict. Therefore, to fulfill our statutory obligation to create a specific, predictable, and sufficient universal service support mechanism, we adopt the Joint Board's recommendation to establish an annual cap on the amount of funds available to schools and libraries.[1382]

531. Extrapolating from the data provided by McKinsey,[1383] Rothstein,[1384] and NCLIS,[1385] the Joint Board estimated that the total cost of the telecommunications services eligible for discounts, as discussed above, would be approximately $3.1 to $3.4 billion annually during an initial four-year deployment period and approximately $2.4 to $2.7 billion annually during subsequent years.[1386]

532. We lack sufficient historical data to estimate accurately demand for the first year of this program. In the past when the Commission has established similar funding mechanisms, the Commission or the administrator has had access to information upon which to base an estimate of necessary first-year contribution levels. For example, when the existing

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[1381] *See, e.g., Rothstein Thesis;* NCLIS, *Internet Cost and Cost Models for Public Libraries, Final Report* (June 1995) (*NCLIS Report).*

[1382] Recommended Decision, 12 FCC Rcd at 368.

[1383] *See generally McKinsey Report.*

[1384] *See generally Rothstein Thesis.*

[1385] *See generally NCLIS Report.*

[1386] Recommended Decision, 12 FCC Rcd at 369. The Joint Board reached these estimates based on the following assumptions and adjustments. First, the Joint Board adjusted the McKinsey base cost estimates for the full classroom model to account for discounts that McKinsey estimates: 20 percent to 30 percent volume discounts and a 10 percent discount from using volunteers to pull cable. The Joint Board also adjusted McKinsey figures downward to reflect the increased percentage of schools that have already installed internal connections since the McKinsey Report was prepared. The Joint Board increased the McKinsey figures to reflect the coverage of approximately 113,000 public and non-public schools, because McKinsey's estimates were based on only 84,500 public schools. The Joint Board also added the cost of Internet access, assuming that 75 percent of schools and libraries will take at least basic access in the first year of this program, and that all schools and libraries will use at least basic access in subsequent years. Furthermore, the Joint Board's estimates were based on deployment of internal connections and T-1 connections in approximately one quarter of all eligible schools and libraries in each of the initial four years. Finally, the Joint Board estimated the telecommunications-related costs of schools that have not yet fully deployed internal connections or more advanced access based on an estimate that basic usage by schools is approximately $525 million annually today. *Id.*

high cost support mechanism was established, carriers were required to provide, in advance, the data necessary to estimate support amounts so that first-year collection levels could be set.[1387] When the TRS fund was established, NECA was able to provide a rough estimate of usage levels because TRS was an existing service, albeit funded differently.[1388] In contrast, no unified mechanisms exist to provide telecommunications and information services to the nation's classrooms and libraries. Therefore, we direct the administrator to collect $100 million per month for the first three months of 1998 and to adjust future contribution assessments quarterly based on its evaluation of school and library demand for funds, within the limits of the spending caps we establish here. We agree with AT&T, Bell Atlantic, and NYNEX, that this collection mechanism will "[e]nsure that the funds will be available as needed while avoiding the potential problems arising from the accumulation of large amounts of funds in a federal universal service fund."[1389] We direct the administrator to report to the Commission on a quarterly basis, on both the total amount of payments made to entities providing services and facilities to schools, libraries, and library consortia to finance universal service support discounts, and its determination regarding contribution assessments for the next quarter.[1390]

533. We note that some commenters charge that the cap the Joint Board recommended is too high[1391] and others assert that it is too low.[1392] We find that the Joint Board carefully weighed the benefits of higher discounts to eligible schools and libraries, which would lead advanced telecommunications services to become more affordable to schools and libraries, against the cost of greater discounts, which would create the need for larger support mechanisms. After substantial deliberations, the Joint Board struck a reasonable balance by recommending a program that would call for contributions of no more than $2.25 billion annually. No commenter has presented record evidence indicating that the recommended discounts produce prices that are not affordable, and none has suggested a more persuasive method for setting affordable prices.

[1387] *See* Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, *Decision and Order*, CC Docket No. 80-286, 96 FCC 2d 781 (1984) at para. 39.

[1388] *See* Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990, *Report and Order and Request for Comments*, 6 FCC Rcd 4657, 4657 (1991); *Third Report and Order*, 8 FCC Rcd 5300, 5303-04 (1993).

[1389] Letter from Edward D. Young, Bell Atlantic and Frank J. Gumper, NYNEX to Chairman Reed E. Hundt, FCC, May 1, 1997.

[1390] Quarterly reports shall be filed with the Commission within 30 days after the end of each quarter.

[1391] *See, e.g.,* LCI comments at 11; AirTouch reply comments at 11.

[1392] *See, e.g.,* Alliance for Community Media comments at 11; CEDR comments at 16; Washington SPI comments at 1.

534. We reject Ameritech's proposal for replacing the cap proposed by the Joint Board with two caps, one applied to funding for internal connections and one for recurring services.[1393] While Ameritech is likely correct that the demand for internal connections will decline as schools deploy internal connections, we find that we can re-examine this issue in the comprehensive universal service review in 2001. At that point, if funds needed to finance residual deployment are significantly reduced, the cap should be lowered. Implicit in any decision to have two caps is the decision to have two distinct support mechanisms. If we were to establish separate support mechanisms for internal connections and for telecommunications services and access to information services, schools and libraries would need to allocate costs between the two components. This need to allocate costs would particularly burden those eligible schools and libraries using wireless service for internal connections, telecommunications services, and access to information services because they would have to characterize every transmission they made as internal, external, or both. Given the likely popularity of wireless services,[1394] this allocation requirement is not likely to be a minor problem. In addition, such an allocation requirement would not be competitively neutral and thus would violate the overall principle of competitive neutrality adopted for purposes of section 254. Moreover, such a requirement would create an artificial constraint on schools' and libraries' discretion to use technologies that fit their needs and their budgets. Thus, Ameritech's proposal would impose significant costs without sufficient evidence that it would yield any significant benefit.

(2) Operation of Cap and Trigger

535. Timing of Funding Requests. As discussed above, we adopt the Joint Board's recommendation that universal service spending for eligible schools and libraries be capped at $2.25 billion annually.[1395] We also adopt the Joint Board's recommendation that such support be committed on a first-come-first-served basis. We further conclude that the funding year will be the calendar year and that requests for support will be accepted beginning on the first of July for the following year. Eligible schools and libraries will be permitted to submit funding requests once they have made agreements for specific eligible services,[1396] and, as the Joint Board recommended, the administrator will commit funds based on those agreements until total payments committed during a funding year have exhausted any funds carried over from previous years and there are only $250 million in funds available for the funding year.

[1393] Ameritech reply comments at 5.

[1394] *McKinsey Report* at 58.

[1395] Recommended Decision, 12 FCC Rcd at 370.

[1396] Schools and libraries may require that those agreements be made contingent on universal service funding approval.

Thereafter, the Joint Board's proposed system of priorities will govern the distribution of the remaining $250 million.[1397]

536. The administrator shall measure commitments against the funding caps and trigger points based on the contractually-specified non-recurring expenditures, such as for internal connection services, and recurring flat-rate charges for telecommunications services and other supported services that a school or library has agreed to pay and the commitment of an estimated variable usage charge, based on documentation from the school or library of the estimated expenditures that it has budgeted to pay for its share of usage charges. Schools and libraries must file their contracts either electronically or by paper copy. Moreover, schools and libraries must file new funding requests for each funding year. Such requests will be placed in the funding queue based on the date and time they are received by the administrator.

537. We conclude that these rules will give schools the certainty they need for budgeting, while avoiding the need for the administrator to accumulate, prioritize, and allocate all discounts at the beginning of each funding year, as some commenters suggest.[1398] Some uncertainty may remain about whether an institution will receive the same level of discount from one year to the next because demand for funds may exceed the funds available. If that does occur, we cannot guarantee discounts in the subsequent year without placing institutions that have not formulated their telecommunications plans in the previous year at a disadvantage, possibly preventing such entities from receiving any universal service support -- a concern raised by some commenters.[1399] We acknowledge that requiring annual refiling for recurring charges places an additional administrative burden on eligible institutions. We find, however, that allowing funding for recurring charges to carry forward from one funding year to the next would favor those who are already receiving funds and might deny any funding to those who had never received funding before.

538. Therefore, we find that, if the administrator estimates that the $2.25 billion cap will be reached for the current funding year, it shall recommend to the Commission a reduction in the guaranteed percentage discounts necessary to permit all expected requests in the next funding year to be fully funded as discussed in more detail, below. Because educational institutions' funding needs will vary greatly, we find that a per-institution cap, as proposed by AT&T, is likely to lead to arbitrary results and be difficult to administer.[1400] For

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[1397] Recommended Decision, 12 FCC Rcd at 370-371.

[1398] *See, e.g.,* RTC comments at 39-40.

[1399] *See, e.g.,* PacTel comments at 53; New York DOE comments at 2.

[1400] AT&T comments at 21.

example, if the per-institution cap were tied to factors such as number of students and the level of discount for which the institution is eligible, as AT&T suggests,[1401] this would limit eligible high schools to the same level of support as eligible elementary schools of equal size, even if the former had substantially greater needs for support. We are not aware of any practical way to make fair and equitable adjustments for such varying needs. We also agree with the Joint Board's decision and rationale for rejecting the concept of setting fund levels for each state, and thus reject BANX's proposal[1402] for establishing a cap on funds flowing to each state.

539. Effect of the Trigger. We adopt the Joint Board's recommendation that, once there is only $250 million in funds available to be committed in a given funding year, "only those schools and libraries that are most economically disadvantaged and ha[ve] not yet received discounts from the universal service mechanism in the previous year would be granted guaranteed funds, until the cap [is] reached."[1403] The Joint Board recommended that "[o]ther economically disadvantaged schools and libraries" should have second priority, followed by "all other eligible schools and libraries."[1404] Although, as the Joint Board recommended, the priority system should give first priority to the most economically disadvantaged institutions that have received no discounts in the previous funding year, we are also concerned that the prioritization process not disrupt institutions' ongoing programs that depend upon the discounts.

540. To achieve the Joint Board's goals, we establish a priority system that will operate as follows. The administrator shall ensure, as explained below,[1405] that the total level of the administrator's commitments, as well as the day that only $250 million remains available under the cap in a funding year, are made publicly available on the administrator's website on at least a weekly basis.[1406] If the trigger is reached, the administrator will ensure that a message is posted on the website, notify the Commission, and take reasonable steps to notify the educational and library communities that commitments for allocating the remaining $250 million of support will be made only to the most disadvantaged eligible schools and libraries for the next 30 days (or the remainder of the funding year, whichever is shorter).

[1401] AT&T comments at 21.

[1402] BANX reply comments at 23.

[1403] Recommended Decision, 12 FCC Rcd at 370.

[1404] Recommended Decision, 12 FCC Rcd at 370.

[1405] *See infra* section X.D.2.

[1406] *See infra* section X.D.2. for a discussion of the website, which will also be used for posting service requests.

That is, during the 30-day period, applications from schools and libraries will continue to be accepted and processed, but the administrator will only commit funds to support discount requests from schools and libraries that are in the two most-disadvantaged categories on the discount matrix and that did not receive universal service supported discounts in the previous or current funding years. We provide, however, that schools and libraries that received discounts only for basic telephone service in the current or prior year shall not be deemed to have received discounts for purposes of the trigger mechanism.[1407] For this purpose, we will ignore support for basic telephone service, because we do not want to discourage disadvantaged schools and libraries from seeking support for this service to avoid forfeiting their priority status for securing support for more advanced services. After the initial 30-day period, if uncommitted funds remain, the administrator will process any requests it received during that period from eligible institutions in the two most disadvantaged categories that had previously received funds. If funds still remain, the administrator will allocate the remaining available funds to schools and libraries in the order that their requests were received until the $250 million is exhausted or the funding year ends.

541. While NTIA asserts that lowering the trigger to $1.5 billion would benefit disadvantaged schools and libraries by ensuring that they were notified while $750 million was still available rather than waiting until only $250 million was available,[1408] there is also a cost to the lower trigger. If the trigger is reached, it prevents any other schools or libraries from securing commitments of support until the trigger period, which we set at 30 days, expires. We do not expect that total requests for support during the funding year will reach $2 billion until the end of the funding year, if at all, and, therefore, we expect that no school or library will need to face a potential 30-day delayed response from the administrator. If, however, we lower the trigger to $1.5 billion, that trigger is much more likely to be reached and may create the delay in funding requests, even if the delay ultimately proves unnecessary because the full funding cap in fact is not exceeded in that funding year. Because we do not expect requests to exceed the cap, we conclude that the increased likelihood of unnecessary delays to school and library funding outweighs the benefit of a 30-day period in which the most disadvantaged schools and libraries would have exclusive access to $750 million, rather than $250 million. We can, of course, adjust the trigger later, if experience so warrants.

542. Adjustments to Discount Matrix. We have established the discount levels in this Order based on the Joint Board's estimate of the level of expenditures that schools and libraries are likely to have.[1409] We do not anticipate that the cost of funding discount requests

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[1407] Discounts on institutions' recurring charges that have already been filed with the administrator will have already been approved and will not be affected by this procedure.

[1408] NTIA reply comments at 28-29.

[1409] *See* Recommended Decision, 12 FCC Rcd at 369.

will exceed the cap, and we do not want to create incentives for schools and libraries to file discount requests prematurely to ensure full funding. Furthermore, we will consider the need to revise the cap in our three-year review proceeding, but if estimated funding requests for the following funding year demonstrate that the funding cap will be exceeded, we will consider lowering the guaranteed percentage discounts available to all schools and libraries, except those in the two most disadvantaged categories, by the uniform percentage necessary to permit all requests in the next funding year to be fully funded. We will direct the administrator to determine the appropriate adjustments to the matrix based on the estimates schools and libraries make of the funding they will request in the following funding year. The administrator must then request the Commission's approval of the recommended adjustments. After seeking public comment on the administrator's recommendation, the Commission will then approve any reduction in such guaranteed percentage discounts that it finds to be in the public interest. If funds remain under the cap at the end of a funding year in which discounts have been reduced below those set in the matrix, the administrator shall consult with the Commission to establish the best way to distribute those funds.

543. We conclude that this percentage reduction of discounts is less disruptive than alternatives, such as RTC's proposal to provide discounts initially for only telecommunications services, phasing in discounts for internal connections and Internet access thereafter.[1410] Many schools and libraries have expressed an immediate need to connect to the Internet and other on-line educational resources;[1411] such connections can only become a reality if these institutions receive funding for internal connections and Internet access. In addition, competitive neutrality would be jeopardized if telecommunications services and internal connections are accorded different treatment. Furthermore, if absolute priority is given to the most disadvantaged schools, then no other school could rely on or receive a discount until the end of the funding year, thereby preventing many schools from participating in the program if they did not have both the cash flow to make payments before universal service support funds were released and the ability to take the risk that they would not receive any universal service support funds.

[1410] *See* RTC comments at 40.

[1411] *See, e.g.*, Letter from David Henslee, Babler Elementary School, to Chmn. Reed E. Hundt, FCC, dated September 11, 1996; Letter from Richard Hess, Shawano-Gresham School District, to Chmn. Reed E. Hundt, FCC, dated March 31, 1997; Letter from Edson P. Sheppard, Jr., The Leelanua Center for Education, to Chmn. Reed E. Hundt, FCC, dated April 9, 1997; Letter from Ida E. Ward, Eastside Union School District, to Chmn. Reed E. Hundt, FCC, dated April 18, 1997; Letter from Bob Sondheimer, Education Association of Charles County, to Chmn. Reed E. Hundt, FCC, dated April 22, 1997; Stephen R. Cascaden, Whitewater Public Schools, to Chmn. Reed E. Hundt, FCC, dated April 23, 1997; Letter from Joyce Decker Wegner, Lake County, dated April 23, 1997; Letter from Benny L. Gooden, Fort Smith Public Schools, to Chmn. Reed E. Hundt, FCC, dated April 23, 1997; Letter from Lynn Hartweger, Bushnell-Prairie City Community Unit School District #170, to Chmn. Reed E. Hundt, FCC, dated April 23, 1997.

544. Advance Payment for Multi-Year Contracts. We conclude that providing funding in advance for multiple years of recurring charges could enable a wealthy school to guarantee that its full needs over a multi-year period were met, even if other schools and libraries that could not afford to prepay multi-year contracts were faced with reduced percentage discounts if the administrator estimated that the funding cap would be exceeded in a subsequent year. We are also concerned that funds would be wasted if a prepaid service provider's business failed before it had provided all of the prepaid services. At the same time, we recognize that educators often will be able to negotiate better rates for pre-paid/multi-year contracts, reducing the costs that both they and the universal service support mechanisms incur. Therefore, we conclude that while eligible schools and libraries should be able to enter into pre-paid/multi-year contracts for supported services, the administrator will only commit funds to cover the portion of a long-term contract that is scheduled to be delivered and installed during the funding year. Eligible schools and libraries may structure their contracts so that payment is required on at least a yearly basis, or they may enter into contracts requiring advance payment for multiple years of service. If they choose the advance payment method, eligible schools and libraries may use their own funds to pay full price for the portion of the contract exceeding one year (pro rata), and may request that the service provider seek universal service support for the pro rata annual share of the pre-payment. The eligible school or library may also request that the service provider rebate the payments from the support mechanisms that it receives in subsequent years to the school or library, to the extent that the school or library secures approval of discounts in subsequent years from the administrator.

f. Existing Contracts

545. We agree with the recommendation of the Joint Board[1412] and a number of commenters[1413] that we should permit schools and libraries to apply the relevant discounts we adopt in this order to contracts that they negotiated prior to the Joint Board's Recommended Decision for services that will be delivered and used after the effective date of our rules, provided the expenditures are approved by the administrator according to the procedures set forth above. No discount would apply, however, to charges for any usage of telecommunications or information services or installation or maintenance of internal connections prior to the effective date of the rules promulgated pursuant to this Order. While we will not require schools or libraries to breach existing contracts to become eligible for discounts, this exemption from our competitive bidding requirements shall not apply to voluntary extensions of existing contracts.

[1412] Recommended Decision, 12 FCC Rcd at 377.

[1413] *See, e.g.,* EDLINC comments at 18-19; Illinois Board of Education comments at 3-4; Minnesota Coalition comments at 30.

546. We conclude that allowing discounts to be applied to existing contract rates for future covered services is appropriate and necessary to ensure schools and libraries affordable access to and use of the services supported by the universal service program. As discussed above and in the Recommended Decision, the concept of affordability contains not only an absolute component, which takes into account, in this case, a school or library's means to subscribe to certain services, but also a relative component, which takes into account whether the school or library is spending a disproportionate amount of its funds on those services.[1414] Thus, although a school or library might have chosen to devote funds to, for example, certain telecommunications services, it might have done so at considerable hardship and thus at a rate that is not truly affordable. Moreover, some schools and libraries might be bound by contracts negotiated by the state, even though an individual school or library in the state might not be able to afford to purchase any services under the contract unless it is able to apply universal service support discounts to the negotiated rate. Furthermore, allowing discounts to be applied to existing contract rates will ensure affordable access to and use of all the services Congress intended, not just whatever services, however minimal, an individual school or library might have contracted for before the discounts adopted herein were available at a cost that might preclude it from being able to afford to purchase other services now available at a discount.

547. We will not adopt, however, the requests of some commenters that we release schools and libraries from their current negotiated contracts, or that we adopt a "fresh look" requirement that would obligate carriers with existing service contracts with schools and libraries to participate in a competitive bidding process,[1415] or that we create a "rebuttable presumption" that existing rates for telecommunications services are reasonable, allowing interested parties to submit objections to existing contracts based on assertions of unreasonable prices, improper cross-subsidization, or anti-competitive conduct by parties.[1416] PacTel contends that adopting a "fresh look" requirement may have a confiscatory effect on service providers that have not yet recovered costs that were to be amortized over the length of the contract, and thus recommends that schools and libraries electing to rebid an existing contract be required to reimburse the original service provider for any out-of-pocket expenses that the provider has not yet recovered.[1417] We find that these proposals would be administratively burdensome, would create uncertainty for those service providers that had previously entered into contracts, and would delay delivery of services to those schools and libraries that took the initiative to enter into such contracts. In addition, we have no reason to

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[1414] *See supra* section V.B.2. (*citing* Recommended Decision, 12 FCC Rcd at 151).

[1415] *See, e.g.,* Community Colleges comments at 18; New York DOE comments at 10.

[1416] Small Cable reply comments at 8-10.

[1417] PacTel reply comments at 29.

believe that the terms of these contracts are unreasonable. Indeed, abrogating these contracts or adopting these other proposals would not necessarily lead to lower pre-discount prices, due to the incentives the states, schools, and libraries had when negotiating the contracts to minimize costs.[1418] Finally, we note there is no suggestion in the statute or the legislative history that Congress anticipated abrogation of existing contracts in this context.

548. We find equally unpersuasive the argument that we should deny schools and libraries the opportunity to apply the discounts we adopt herein to previously negotiated contract rates.[1419] We disagree with the argument that applying the discounts to existing contract rates would confer an inappropriate advantage upon incumbent LECs because they were most likely the only providers previously in a position to provide service to schools and libraries.[1420] Because schools and libraries are already bound to those contracts regardless of whether discounts are provided, we see no way in which ILECs will be unfairly advantaged.

549. We agree with the Joint Board that schools and libraries, constrained by budgetary limitations and the obligation to pay 100 percent of the contract price, had strong incentives to secure the lowest rates possible when they negotiated the contracts.[1421] Thus, we find it appropriate to apply discounts to these presumptively low rates rather than requiring negotiation of new rates. Furthermore, we conclude that it would not be in the public interest to penalize schools and libraries in states that have aggressively embraced educational technologies and have signed long-term contracts for service by refusing to allow them to apply discounts to their pre-existing contract rates.

g. Interstate and Intrastate Discounts

550. We concur with the Joint Board's recommendation that we exercise our authority to provide federal universal service support to fund intrastate discounts.[1422] We also agree with the Joint Board's recommendation that we adopt rules providing federal funding for discounts for eligible schools and libraries on both interstate and intrastate services to the

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[1418] PacTel reply comments at 28 ("There is no guarantee that a new bidding process would produce rates that are even as low as the ones currently in effect, particularly if the current rate is the product of a long-term agreement that has protected the schools and libraries from rate increases.").

[1419] *See, e.g.,* ALTS comments at 15-16; Cox comments at 12; Teleport comments at 8.

[1420] Cox comments at 12. *See also* Teleport comments at 8 (stating that applying discounts to existing contracts will effectively bar competitors from potentially lucrative markets and force schools and libraries to remain "captives" of the ILEC).

[1421] Recommended Decision, 12 FCC Rcd at 377.

[1422] Recommended Decision, 12 FCC Rcd at 378.

levels discussed above and that we require states to establish intrastate discounts at least equal to the discounts on interstate services as a condition of federal universal service support for schools and libraries in that state.[1423] While section 254(h)(1)(B) permits the states to determine the level of discount available to eligible schools and libraries with respect to intrastate services,[1424] the Act does nothing to prohibit the Commission from offering to fund intrastate discounts or conditioning that funding on action the Commission finds to be necessary to achieve the goal that the Snowe-Rockefeller-Exon-Kerrey amendment sought to accomplish under this subsection.

551. We do not agree with commenters, such as the New York DOE, that suggest instead that the universal service funds that are collected based on intrastate rates should be provided to the states to spend on education as they choose.[1425] We find that this proposal resembles the state block grant approach that the Joint Board rejected as inconsistent with the intent of Congress.[1426] We agree with the Joint Board and adopt its rationale that block grants are not consistent with the statutory intent.[1427] On the other hand, we agree with Wyoming's observation that section 254(h)(1)(B) creates a partnership,[1428] insofar as that section permits a state that wants to provide greater discounts or discounts for additional services for schools to do so. In response to Georgia PSC's assertion that our program intrudes upon a state's discretion over funding decisions,[1429] we note that states retain full discretion to require providers to set pre-discount prices for intrastate services even lower than the market might produce and to provide the support required, if any, from intrastate support obligations. We would find such an arrangement consistent with section 254(f)'s directive that "[a] State may adopt regulations not inconsistent with the Commission's rules to preserve and advance universal service."[1430] Furthermore, we concur with the Joint Board that it would also be permissible for states to choose not to supplement the federal program and thus prohibit their schools and libraries from purchasing services at special state-supported rates if the schools

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[1423] Recommended Decision, 12 FCC Rcd at 378.

[1424] 47 U.S.C. § 254(h)(1)(B).

[1425] New York DOE comments at 8.

[1426] Recommended Decision, 12 FCC Rcd at 366.

[1427] Recommended Decision, 12 FCC Rcd at 366.

[1428] Wyoming PSC comments at 11-12.

[1429] Georgia PSC reply comments at 27 n.70.

[1430] 47 U.S.C. § 254(f).

and libraries intend to secure federal-supported discounts.[1431] Finally, we note that, if a state wishes to provide an intrastate discount mechanism that is less than the federal discount, it may seek a waiver of the requirement that it match the federal discount levels,[1432] although we would only expect to grant such waivers on a temporary basis and only for states with unusually compelling cases.

D. Restrictions Imposed On Schools and Libraries

1. Background

552. Section 254 places four restrictions on schools and libraries receiving services at discounts funded under universal service support mechanisms. First, only certain schools and libraries are eligible for "preferential rates or treatment" under section 254(h).[1433] To be considered eligible, schools must meet the statutory definition of an elementary or secondary school found in the Elementary and Secondary Education Act of 1965,[1434] must not operate as a for-profit business, and must not have an endowment exceeding $50 million.[1435] To be considered eligible, a library[1436] or library consortium[1437] must be "eligible for assistance from

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[1431] Recommended Decision, 12 FCC Rcd at 377.

[1432] Recommended Decision, 12 FCC Rcd at 378.

[1433] 47 U.S.C. § 254(h)(4).

[1434] 47 U.S.C. § 254(h)(4) and (h)(5)(A). The Elementary and Secondary Education Act of 1965 defines "elementary school" as "a nonprofit institutional day or residential school that provides elementary education, as determined under State law." 20 U.S.C. § 8801(14). The Elementary and Secondary Education Act defines "secondary school" as "a nonprofit institutional day or residential school that provides secondary education, as determined under State law, except that such term does not include any education beyond grade 12." 20 U.S.C. § 8801(25).

[1435] *See* 47 U.S.C. § 254(h)(4).

[1436] Under the Library Services and Technology Act (LSTA), which was enacted on September 30, 1996, "library" is defined to include:

(A) a public library;
(B) a public elementary or secondary school library;
(C) an academic library;
(D) a research library, which for the purposes of this subtitle means a library that --
  (i) makes publicly available library services and materials suitable for scholarly research and not otherwise available to the public; and
  (ii) is not an integral part of an institution of higher education; and
(E) a private library, but only if the State in which such private library is located determines that the library should be considered a library for purposes of this subtitle.

a State library administrative agency under the Library Services and Technology Act,"[1438] and must not operate as a for-profit business.[1439] Second, telecommunications services and network capacity provided to schools and libraries under section 254(h) "may not be sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value."[1440] Third, section 254(h)(1)(B) requires that schools and libraries make a "bona fide request" for services within the definition of universal service.[1441] Fourth, any such services requested by schools and libraries must be used for "educational purposes."[1442]

Pub. L. No. 104-208, § 213(2).

The definition of library upon which the Joint Board relied was contained in the Library Services and Construction Act (LSCA). That Act was repealed and replaced by LSTA. *See* Pub. L. No. 104-208, § 708(a). The former definition of library, which was contained in the now-repealed LSCA, was as follows:

> `Public library' means a library that serves free of charge all residents of a community, district, or region, and receives its financial support in whole or in part from public funds. Such term also includes a research library, which, for the purposes of this sentence, means a library which --
> (A) makes its services available to the public free of charge;
> (B) has extensive collections of books, manuscripts, and other materials suitable for scholarly research which are not available to the public through public libraries;
> (C) engages in the dissemination of humanistic knowledge through services to readers, fellowships, educational and cultural programs, publication of significant research, and other activities; and
> (D) is not an integral part of an institution of higher education.

20 U.S.C. § 351a(5).

[1437] Under LSTA, "[t]he term `library consortium' means any local, statewide, regional, interstate, or international cooperative association of library entities which provides for the systematic and effective coordination of the resources of school, public, academic, and special libraries and information centers, for improved services for the clientele of such library entities." Pub. L. No. 104-208, § 213(3). *See infra* section X.D.2 for a discussion of the modification to the definition of library consortium adopted in the Order.

[1438] 47 U.S.C. § 254(h)(4). Section 254(h)(4) was amended by LSTA, Pub. L. No. 104-208, § 709(a)(8), which was enacted on September 30, 1996. LSCA, 20 U.S.C. § 351 et seq., which was originally cited in § 254(h)(4) among the eligibility of criteria for libraries, was repealed by LSTA. *See* Pub. L. No. 104-208, § 708(a).

[1439] 47 U.S.C. § 254(h)(4).

[1440] 47 U.S.C. § 254(h)(3). *See also* Joint Explanatory Statement at 133 (stating that "[n]ew subsection (h)(3) clarifies that telecommunications services and network capacity provided to . . . schools and libraries may not be resold or transferred for monetary gain").

[1441] 47 U.S.C. § 254(h)(1)(B).

[1442] 47 U.S.C. § 254(h)(1)(B).

553. The Recommended Decision addressed issues relating to eligibility, resale, bona fide requests for educational purposes, auditing, and a carrier notification requirement. The Joint Board observed that section 254(h) explicitly defines the class of entities eligible for support.[1443] The Joint Board recommended that eligible schools and libraries be permitted to aggregate their needs for eligible services with those of both eligible and ineligible entities, concluding that those not directly eligible for support should not be permitted to gain eligibility by participating in consortia with those who are eligible.[1444] The Joint Board also recommended that the Commission interpret section 254(h)(3) to prohibit any resale whatsoever of services purchased pursuant to a section 254 discount.[1445]

2. Discussion

554. Eligibility. The Joint Board concluded that, to be eligible for universal service support, a school must meet the statutory definition of an elementary or secondary school found in the Elementary and Secondary Education Act of 1965, must not operate as a for-profit business, and must not have an endowment exceeding $50 million.[1446] We agree and conclude that all schools that fall within the definition contained in the Elementary and Secondary Education Act of 1965 and meet the criteria of section 254(h), whether public or private, will be eligible for universal service support. Illinois Board of Education and Community Colleges ask that we expand the definition of schools to include entities that educate elementary and secondary school aged students,[1447] and APTS asks that we permit discounts for educational television station licensees as a way to support distance learning.[1448] We find, however, consistent with the Joint Board and with SBC's observation,[1449] that section 254(h)(5)(A) does not grant us discretion to expand the statutory definition of schools. For the same reason, we must reject the West Virginia Consumer Advocate's suggestion that we presume private and parochial schools to be eligible even if they do not meet the statutory definition of schools.[1450]

[1443] Recommended Decision, 12 FCC Rcd at 391.

[1444] Recommended Decision, 12 FCC Rcd at 391.

[1445] Recommended Decision, 12 FCC Rcd at 393.

[1446] 47 U.S.C. § 254(h)(4). *See also* Recommended Decision, 12 FCC Rcd at 391. The Elementary and Secondary Education Act of 1965 can be found at 20 U.S.C. § 8801(14) and (25).

[1447] Illinois Board of Education comments at 10-11; Community Colleges comments at 5-6.

[1448] APTS comments at 5-6.

[1449] SBC reply comments at 23.

[1450] West Virginia Consumer Advocate comments at 1-12.

555. We note NTIA's concern that certain tribal schools may not meet the statutory definition of schools and, therefore, may not be eligible for universal service support.[1451] While 187 schools funded by the Bureau of Indian Affairs were included in the total number of schools cited by the Joint Board, NTIA contends that there may be additional schools established by tribes or tribal organizations.[1452] We conclude that, if those schools meet the statutory definition of school and the other eligibility criteria under section 254(h), they will be eligible for universal service support. We also conclude that section 254(h)(5)(A) does not give us the discretion to provide universal service support to any entity educating elementary and secondary school aged children unless that entity meets the statutory definition of school.

556. Section 254(h)(5) does not include an explicit definition of libraries eligible for support.[1453] Rather, in section 254(h)(4)'s eligibility criteria, Congress cited LSCA.[1454] The Joint Board, therefore, used the definition of library found in Title III of the LSCA.[1455] In late 1996, however, Congress amended section 254(h)(4) to replace citation to the LSCA with a citation to the newly enacted LSTA.[1456] In light of this amendment to section 254(h)(4), we

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[1451] NTIA reply comments at 26-27.

[1452] NTIA reply comments at 27 n.52.

[1453] Section 254(h)(4) explicitly excludes certain libraries from eligibility for universal service support, but section 254 does not define which libraries are eligible for support. *See* 47 U.S.C. § 254(h)(4).

[1454] Prior to its amendment discussed *infra*, section 254(h)(4) read as follows:

> ELIGIBILITY OF USERS.- No entity listed in this subsection shall be entitled to preferential rates or treatment as required by this subsection, if such entity operates as a for-profit business, is a school described in paragraph (5)(A) with an endowment of more than $50,000,000, or *is a library not eligible for participation in State-based plans for funds under title III of the Library Services and Construction Act (20 U.S.C. § 335c et seq.).*

47 U.S.C. § 254(h)(4) (emphasis added).

[1455] 47 U.S.C. § 254(h)(4).

[1456] Section 254(h)(4) now reads as follows:

> ELIGIBILITY OF USERS. - No entity listed in this subsection shall be entitled to preferential rates or treatment as required by this subsection, if such entity operates as a for-profit business, is a school described in paragraph (5)(A) with an endowment of more than $50,000,000, or *is a library or library consortium not eligible for assistance from a State library administrative agency under the Library Services and Technology Act.*

find it necessary to look anew at the definitions of library and library consortium and adopt definitions that are consistent with the directives of section 254(h).

557. LSTA defines a library more broadly than did the former LSCA and includes, for example, academic libraries and libraries of primary and secondary schools.[1457] If, for purposes of determining entities eligible for universal service support, we were to adopt a definition that includes academic libraries, we are concerned that the congressional intent to limit the availability of discounts under section 254(h) could be frustrated. Specifically, in section 254(h)(5), Congress limited eligibility for support to elementary and secondary schools that meet certain criteria, choosing to target support to K-12 schools rather than attempting to cover the broader set of institutions of higher learning. If we were to adopt the new expansive definition of library, institutions of higher learning could assert that their libraries, and thus effectively their entire institutions, were eligible for support. For example, a university could establish "branch libraries" in classrooms and even student dormitories, making them eligible for universal service support as "academic libraries." Such a scenario could result in otherwise ineligible institutions receiving universal service support, thus draining a substantial amount of the support Congress intended for eligible schools and libraries. Similarly, elementary or secondary schools with endowments of more than $50 million that would otherwise be excluded from receiving support under section 254(h)(4) could establish "branch libraries" in each classroom, making them eligible for universal service support as elementary or secondary school libraries. This scenario would also result in otherwise ineligible entities, i.e., elementary and secondary schools with endowments exceeding $50 million, draining a significant amount of universal service support away from entities that Congress specifically targeted for support. Both of these outcomes would circumvent the section 254(h) limitation on support to eligible elementary and secondary schools, would contradict Congress's intent to target support to K-12 schools and libraries, and would inflict the most harm upon the economically disadvantaged schools and libraries eligible for the greatest percentages of universal service support.

558. We, therefore, adopt the LSTA definition of library for purposes of section 254(h), but we conclude that a library's eligibility for universal service funding will depend on its funding as an independent entity. That is, because institutions of higher education are not eligible for universal service support, an academic library will be eligible only if its funding is independent of the funding of any institution of higher education. By "independent," we mean that the budget of the library is completely separate from any institution of learning. This independence requirement is consistent with both congressional intent and the expectation of the Joint Board that universal service support would flow to an institution of

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47 U.S.C. § 254(h)(4) (as amended) (emphasis added).

[1457] *See* Pub. L. No. 104-208, § 213(2).

learning only if it is an elementary or secondary school.[1458] Similarly, because elementary and secondary schools with endowments exceeding $50 million are not eligible for universal service support,[1459] a library connected to such a school will be eligible only if it is funded independently from the school.

559. We adopt the independent library requirement because we are also concerned that, in some instances where a library is attached, for funding purposes, to an otherwise eligible school, the library could attempt to receive support twice, first as part of the school and second as an independent entity. We find that the independence requirement will ensure that an elementary or secondary school library cannot collect universal service support twice for the same services.

560. When Congress amended section 254(h)(4) in late 1996, it added the term "library consortium" to the entities potentially eligible for universal service support.[1460] We adopt the definition of library consortium as it is defined in LSTA, with one modification. We eliminate "international cooperative association of library entities" from our definition of library consortia eligible for universal service support because we conclude that this modified definition is consistent with the directives of section 254(h).

561. We find that the inclusion of "library consortium" in the LSTA definition of library should address the concern of MassLibrary that library consortia be eligible for universal service support.[1461] Moreover, in response to Community Colleges,[1462] we conclude that community college libraries are eligible for support only if they meet the definition above and other requirements of section 254(h). In addition, as described above, the Joint Board recommended, and we agree, that all eligible schools and libraries should be permitted to enter into consortia with other schools and libraries.[1463]

562. The Joint Board concluded that entities not explicitly eligible for support should not be permitted to gain eligibility for discounts by participating in consortia with those who are eligible, even if the former seek to further educational objectives for students

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[1458] *See* 47 U.S.C. § 254(h)(1)(B); 47 U.S.C. § 254(h)(4); 47 U.S.C. § 254 (h)(5); 12 FCC Rcd at 391.

[1459] *See* 47 U.S.C. § 254(h)(4).

[1460] *See* 47 U.S.C. § 254(h)(4). *See supra* section X.D.1. for a discussion of the amendment of section 254(h)(4).

[1461] MassLibrary comments at 1-2.

[1462] Community Colleges comments at 11.

[1463] *See supra* section X.C.2.a.

who attend eligible schools.[1464] We agree with, and therefore adopt, this Joint Board recommendation. Nevertheless, we look to ineligible schools and libraries to assume leadership roles in network planning and implementation for educational purposes. Although we conclude that Congress did not intend that we finance the costs of network planning by ineligible schools and libraries through universal service support mechanisms, we encourage universities and other repositories of information to make their online facilities available to other schools and libraries. We note that eligible schools and libraries will be eligible for discounts on any dedicated lines they purchase to connect themselves to card catalogues or databases of scientific or other educational data maintained by colleges or universities, databases of research materials maintained by religious institutions, and any art or related materials maintained by private museum archives. Connections between eligible and ineligible institutions can be purchased by an eligible institution subject to the discount as long as the connection is used for the educational purposes of the eligible institution. For example, an eligible school could use universal service support discounts to pay for satellite connections to enable students or teachers to participate in academic symposiums or lectures, but not to receive live broadcasts of sporting events.

563. In response to Benton's, NASTD's, and Georgia PSC's comments,[1465] we emphasize that we encourage all eligible entities to participate in consortia because such participation should enable them to secure the telecommunications and information services and facilities they need under terms and conditions better than they could negotiate alone. We conclude that, because they may be able to offer service providers economies of scale and scope that reduce the costs of serving them, consortia may be able to negotiate lower prices with providers competing to serve them better than schools or libraries could on their own. Although consortia-negotiated prices might commonly be characterized as "discounted prices," because they are lower than the prices that individual members of the consortia would be able to secure on their own, we still characterize them as "pre-discount prices" for the purposes of section 254(h) because they are the prices eligible schools and libraries could obtain even without application of the relevant universal service support discounts.[1466] All members of such consortia, including those ineligible for universal service support, would benefit from these lower "pre-discount" prices produced by such statewide, regional, or large group contracts.

564. While those consortium participants ineligible for support would pay the lower pre-discount prices negotiated by the consortium, only eligible schools and libraries would

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[1464] Recommended Decision, 12 FCC Rcd at 391.

[1465] Benton reply comments at 6-7; Georgia PSC reply comments at 27-29; NASTD *ex parte* comments (Feb. 12, 1997).

[1466] *See supra* section X.C.2.a. for a discussion of pre-discount prices.

receive the added benefit of universal service discount mechanisms. Those portions of the bill representing charges for services purchased by or on behalf of and used by an eligible school, school district, library, or library consortia for educational purposes would be reduced further by the discount percentage to which the school or library using the services was entitled under section 254(h). The service provider would collect that discount amount from universal service support mechanisms. The prices for services that were not actually used by eligible entities for educational purposes would not be reduced below the contract price.

565. Finally, several commenters ask that universal service support be targeted to schools and libraries serving individuals with disabilities.[1467] We acknowledge the barriers faced by individuals with disabilities in accessing telecommunications, and we note that individuals with disabilities attending eligible schools and using the resources of eligible libraries will benefit from universal service support mechanisms to the extent that those institutions qualify for universal service support.[1468] We agree with the Joint Board, however, that the specific barriers faced by individuals with disabilities in accessing telecommunications are best addressed in the proceeding to implement section 255 of the Act.[1469] As we concluded in the low-income section of this Order, neither the text nor the legislative history of section 254 indicates that Congress intended for us to create new support mechanisms targeted specifically to individuals with disabilities.[1470]

566. Resale. Section 254(h)(3) bars entities that obtain discounts from reselling the discounted services. It states that:

> Telecommunications services and network capacity provided [to schools or libraries at a discount] may not be sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value.[1471]

[1467] *See, e.g.,* United Cerebral Palsy Ass'n comments at 8-10; Universal Service Alliance comments at 6-7; Consumer Action reply comments at 2-3.

[1468] For a further discussion of individuals with disabilities in the context of universal service, *see supra* section III (principles) and section VIII (low-income).

[1469] 47 U.S.C. § 255. The Commission took the first step toward implementing section 255 with the release of a *Notice of Inquiry* on September 19, 1996. *See* Implementation of Section 255 of the Telecommunications Act of 1996, *Notice of Inquiry,* WT Docket No. 96-198, FCC 96-382 (rel. Sept. 19, 1996). *See also* Telecommunications Relay Services, the Americans with Disabilities Act of 1990, and the Telecommunications Act of 1996, *Notice of Inquiry,* CC Docket No. 90-571, FCC 97-7 (rel. Jan. 14, 1997).

[1470] *See supra* section VIII.

[1471] 47 U.S.C. § 254(h)(3).

We concur with the Joint Board's recommendation that we not interpret the section 254(h)(3) bar to apply only to resale for profit.[1472] To adopt the suggestion of EDLINC[1473] and permit waivers for resale to entities that serve educational purposes would permit schools and libraries to circumvent the eligibility requirements discussed above and would provide services at a discount to entities that Congress did not choose to cover. Moreover, adopting EDLINC's suggestion would rapidly deplete the funds available to the eligible schools and libraries that Congress intended to benefit from the universal service discount program. The same reasoning applies to the request by the Vermont PSB that schools and libraries be permitted to resell services if they charge the discounted prices that they pay for them.[1474] We agree with the Joint Board's recommendation that we interpret section 254(h)(3) to restrict any resale whatsoever of services purchased pursuant to a section 254 discount to entities that are not eligible for support.[1475]

567. We agree, however, with the Vermont PSB that the section 254(h)(3) prohibition on resale does not prohibit an eligible entity from charging fees for any services that schools or libraries purchase that are not subject to a universal service discount.[1476] Thus, an eligible school or library may assess computer lab fees to help defray the cost of computers or training fees to help cover the cost of training because these purchases are not subsidized by the universal service support mechanisms. We also observe that, if eligible schools, libraries, or consortia amend their approved service contracts to permit another eligible school or library to share the services for which they have already contracted, it would not constitute prohibited resale, as long as the services used are only discounted by the amount to which the eligible entity actually using the services is entitled.

568. We recognize that the prohibition on resale creates some tension with our decision to permit purchasing consortia that include both eligible and ineligible public sector institutions, even though discounts would only apply to services purchased by eligible institutions. On the one hand, we are concerned that permitting eligible and ineligible buyers to commingle their purchases would permit eligible schools and libraries to transfer the use of their discount to ineligible entities in violation of the prohibition on resale. On the other hand, as we explained above, we want to encourage eligible institutions to aggregate their demands with others to enable them to enjoy efficiencies and negotiate favorable arrangements with service providers. As the Senate Working Group stated, the Act "should

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[1472] Recommended Decision, 12 FCC Rcd at 393.

[1473] EDLINC comments at 18.

[1474] Vermont PSB comments at 20.

[1475] Recommended Decision, 12 FCC Rcd at 393.

[1476] Vermont PSB comments at 19.

not hinder or preclude the creative development of consortia among education[al] institutions."[1477] Limiting such consortia to include only other K-12 schools and libraries could severely constrain their ability to achieve sufficient demand to attract potential competitors and thereby to negotiate lower rates or at least secure efficiencies, particularly in lower density regions. Permitting schools and libraries to aggregate with other ineligible public sector institutions, including state colleges and universities, state educational broadcasters, and municipalities, could enable the eligible entities to secure lower pre-discount rates, thereby diminishing both their costs and the amount of money required to finance a given percentage discount. In fact, many schools and libraries rely primarily, if not solely, on access to the Internet through networks managed by their states.[1478] The difficulty, then, is how to allow eligible institutions to aggregate their demand with ineligible entities while diminishing the likelihood of illegal resale through the extension of discounts to services used by ineligible entities.

569. We concur with the Joint Board's conclusion that, despite the difficulties of allocating costs and preventing abuses, the benefits of permitting schools and libraries to join in consortia with other customers, as discussed above, outweigh the danger that such aggregations will lead to significant abuse of the prohibition against resale.[1479] The Joint Board reached this conclusion based on three findings, and we concur with each of them. First, the Joint Board found that the only way to avoid any possible misallocations by eligible schools and libraries would be to limit severely all consortia, even among eligible schools and libraries, because it is possible that consortia including schools and libraries eligible for varying discounts could allocate costs in a way that does not precisely reflect each school's or library's designated discount level. We agree with the Joint Board's conclusion that severely limiting consortia would not be in the public interest because it would serve to impede schools and libraries from becoming attractive customers or from benefiting from efficiencies, such as those secured by state networks.[1480] Second, illegal resale, whereby eligible schools and libraries use their discounts to reduce the prices paid by ineligible entities, can be substantially deterred by a rule requiring providers to keep and retain careful records of how they have allocated the costs of shared facilities in order to charge eligible schools and libraries the appropriate amounts. These records should be maintained on some reasonable

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[1477] Senate Working Group NPRM further comments at 2. *See also* U.S. Distance Learning Ass'n NPRM comments at 20.

[1478] *See, e.g.,* Georgia PSC reply comments at 27-29. The states of Tennessee, Texas, Iowa, and Utah also have statewide networks. *Cf.* NASTD *ex parte* comments (February 12, 1997).

[1479] Recommended Decision, 12 FCC Rcd at 392. *See supra* section X.C.2 (permitting eligible schools and libraries participating in consortia with other eligible schools and libraries, as well as with ineligible public sector (governmental) members, to qualify for universal service discounts).

[1480] Recommended Decision, 12 FCC Rcd at 392.

basis, either established by the Commission or the administrator, and should be available for public inspection. We concur with the Joint Board's conclusion that reasonable approximations of cost allocations should be sufficient to deter significant abuse.[1481] Third, we share the Joint Board's expectation that the growing bandwidth requirements of schools and libraries will make it unlikely that other consortia members will be able to rely on using more than their paid share of the use of a facility.[1482] This will make fraudulent use of services less likely to occur. We also agree with the Joint Board's recommendation that state commissions should undertake measures to enable consortia of eligible and ineligible public sector entities to aggregate their purchases of telecommunications services and other services being supported through the discount mechanism, in accordance with the requirements set forth in section 254(h).[1483]

570. Bona Fide Request for Educational Purposes. Section 254(h)(1)(B) limits discounts to services provided in response to bona fide requests made for services to be used for educational purposes.[1484] We concur with the Joint Board's finding that Congress intended to require accountability on the part of schools and libraries and, therefore, we concur with the Joint Board's recommendation and the position of most commenters that eligible schools and libraries be required to: (1) conduct internal assessments of the components necessary to use effectively the discounted services they order; (2) submit a complete description of services they seek so that it may be posted for competing providers to evaluate; and (3) certify to certain criteria under penalty of perjury.

571. Because we find that the needs of educational institutions are complex and substantially different from the needs of other entities eligible for universal service support pursuant to this Order, we will require the administrator, after receiving recommendations submitted by the Department of Education, to select a subcontractor to manage exclusively the application process for eligible schools and libraries, including dissemination and review of applications for service and maintenance of the website on which applications for service will be posted for competitive bidding by carriers. The important criteria in recommending eligible subcontractors are: familiarity with the telecommunications and technology needs of educational institutions and libraries; low administrative costs; and familiarity with the procurement processes of the states and school districts. Moreover, we will consult with the Department of Education in designing the applications for this process. We will require those applications to include, at a minimum, certain information and certifications.

[1481] Recommended Decision, 12 FCC Rcd at 392.

[1482] Recommended Decision, 12 FCC Rcd at 392.

[1483] Recommended Decision, 12 FCC Rcd at 392.

[1484] 47 U.S.C. § 254(h)(1)(B).

572. First, we will require applications to include a technology inventory/assessment. We expect that, before placing an order for telecommunications or information services, the person authorized to make the purchase for a school or library would need to review what telecommunications-related facilities the school or library already has or plans to acquire. In this regard, applicants must at a minimum provide the following information, to the extent applicable to the services requested:

> (1) the computer equipment currently available or budgeted for purchase for the current, next, or other future academic years, as well as whether the computers have modems and, if so, what speed modems;
> (2) the internal connections, if any, that the school or library already has in place or has budgeted to install in the current, next, or future academic years, or any specific plans relating to voluntary installation of internal connections;[1485]
> (3) the computer software necessary to communicate with other computers over an internal network and over the public telecommunications network currently available or budgeted for purchase for the current, next, or future academic years;
> (4) the experience of and training received by the relevant staff in the use of the equipment to be connected to the telecommunications network and training programs for which funds are committed for the current, next, or future academic years;
> (5) existing or budgeted maintenance contracts to maintain computers; and
> (6) the capacity of the school's or library's electrical system to handle simultaneous uses.

573. In addition, schools and libraries must prepare specific plans for using these technologies, both over the near term and into the future, and how they plan to integrate the use of these technologies into their curriculum. Therefore, we concur with the Joint Board's finding that it would not be unduly burdensome to require eligible schools and libraries to "do their homework" in terms of preparing these plans.[1486]

574. To ensure that these technology plans are based on the reasonable needs and resources of the applicant and are consistent with the goals of the program, we will also require independent approval of an applicant's technology plan, ideally by a state agency that regulates schools or libraries. We understand that many states have already undertaken state technology initiatives,[1487] and we expect that more will do so and will be able to certify the technology plans of schools and libraries in their states. Furthermore, plans that have been

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[1485] *See supra* section X.B.2.c. for an explanation of NetDays.

[1486] Recommended Decision, 12 FCC Rcd at 394.

[1487] *See* New York DOE comments at 9 (suggesting that schools and libraries may be required to conduct technology assessments in response to a state technology initiative).

approved for other purposes, e.g., for participation in federal or state programs such as "Goals 2000" and the Technology Literacy Challenge, will be accepted without need for further independent approval. With regard to schools and libraries with new or otherwise approved plans, we will receive guidance from the Department of Education and the Institute for Museum and Library Services as to alternative approval measures. As noted below, we will also require schools and libraries to certify that they have funds committed for the current funding year to meet their financial obligations set out in their technology plans.

575. Second, we will require the application to describe the services that the schools and libraries seek to purchase in sufficient detail to enable potential providers to formulate bids. Since we agree with the Joint Board's conclusion that Congress intended schools and libraries to avail themselves of the growing competitive marketplace for telecommunications and information services,[1488] as discussed above, we concur with the Joint Board's recommendation that schools and libraries be required to obtain services through the use of competitive bidding.[1489] Once the subcontractor selected by the administrator receives an application and finds it complete, the subcontractor will post the application, including the description of the services sought on a website for all potential competing service providers to review and submit bids in response, as if they were requests for proposals (RFPs).[1490] Moreover, while schools and libraries may submit formal and detailed RFPs to be posted, particularly if that is required or most consistent with their own state or local acquisition requirements, we will also permit them to submit less formal descriptions of services, provided sufficient detail is included to allow providers to reasonably evaluate the requests and submit bids. As the Joint Board recognized, many schools and libraries are already required by their local government or governing body to prepare detailed descriptions of any purchase they make above a specified dollar amount, and they may be able to use those descriptions for this purpose as well.[1491] We emphasize, however, that the submission of a request for posting is in no way intended as a substitute for state, local, or other procurement processes.

576. We will also require that applications posted on the website by the administrator's subcontractor present schools' and libraries' descriptions of services in a way that will enable providers to search among potential customers by zip code, number of students (schools) or patrons (libraries), number of buildings, and other data that the

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[1488] Recommended Decision, 12 FCC Rcd at 395.

[1489] *See supra* section X.C.2. for a discussion of competitive bidding.

[1490] *See also* BellSouth comments at 29 (stating that competitive bidding and posting RFPs on a website "will ensure that many providers will have the opportunity to submit bids, and, thus, brings to the process many benefits which can be gained through the natural operation of competitive forces").

[1491] Recommended Decision, 12 FCC Rcd at 395.

administrator will receive in the applications. We believe that this procedure should enable even potential service providers without direct access to the website to rely on others to conduct searches for them. We also note that schools will submit the percentage of their students eligible for the national school lunch program and libraries will submit the percentage of students eligible for the national school lunch program in the school districts in which they are located to the administrator's subcontractor, in order to enable the administrator to calculate the amount of the applicable discount. This information will also be posted by the administrator on the website to help providers bidding on services to calculate the applicable discounts.

577. Third, we concur with the Joint Board's recommendation that the request for services submitted to the Administrator's subcontractor shall be signed by the person authorized to order telecommunications and other supported services for the school or library, who will certify the following under oath:

(1) the school or library is an eligible entity under sections 254(h)(4) and 254(h)(5) and the rules adopted herein;
(2) the services requested will be used solely for educational purposes;
(3) the services will not be sold, resold, or transferred in consideration for money or any other thing of value;
(4) if the services are being purchased as part of an aggregated purchase with other entities, the identities of all co-purchasers and the services or portion of the services being purchased by the school or library;
(5) all of the necessary funding in the current funding year has been budgeted and will have been approved to pay for the "non-discount" portion of requested connections and services as well as any necessary hardware, software, and to undertake the necessary staff training required in time to use the services effectively; and
(6) they have complied, and will continue to comply, with all applicable state and local procurement processes.

578. We decline to adopt Time Warner's suggestion that we establish guidelines to identify educational purposes in a further effort to prevent fraudulent use of discounted services.[1492] Time Warner's concern is addressed by the certification requirements with which schools and libraries must comply and by the potential civil and criminal liability faced by the person authorized to order services for schools and libraries if those services are not used for their intended educational purposes. For example, we may impose a forfeiture penalty under

[1492] Time Warner comments at 35-36.

sections 502 and 503(b) of the Act.[1493] In addition, the person authorized to order services for schools and libraries may be liable for false statements under Title 18 of the United States Code for such fraud.[1494] Although Vermont PSB asks us to reduce these requirements,[1495] we conclude that they are reasonable and not unnecessarily burdensome.

579. We conclude that, to permit all interested parties to respond to those posted requests, schools, libraries, and consortia including such entities should be required to wait four weeks after a description of the services they seek has been posted on the school and library website, before they sign any binding contracts for discounted services. Once they have signed a contract for discounted services,[1496] the school, library, or consortium including such entities shall send a copy of that contract to the administrator's subcontractor with an estimate of the funds that it expects to need for the current funding year as well what it estimates it will request for the following funding year. Assuming that there are sufficient funds remaining to be committed, the subcontractor shall commit the necessary funds for the future use of the particular requestor and notify the requestor that its funding has been approved.

580. Once the school, library, or consortium including such entities has received approval of its purchase order, it may notify the provider to begin service, and once the former has received service from the provider it must notify the administrator to approve the flow of universal service support funds to the provider.

581. Auditing. We agree with the Joint Board recommendation that schools and libraries, as well as carriers, be required to maintain appropriate records necessary to assist in future audits.[1497] We share the Joint Board's expectation that schools and libraries will be able to produce such records at the request of any auditor appointed by a state education

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[1493] *See* 47 U.S.C. § 502 ("[a]ny person who willfully and knowingly violates any rule, regulation, restriction, or condition made or imposed by the Commission under authority of this Act . . . shall, in addition to any other penalties provided by law, be punished, upon conviction thereof, by a fine of not more than $500 for each and every day during which such offense occurs"); 47 U.S.C. § 503(b) ("[a]ny person who is determined by the Commission . . . to have . . . willfully or repeatedly failed to comply with any . . . rule, regulation, or order issued by the Commission under this Act . . . shall be liable to the United States for a forfeiture penalty").

[1494] 18 U.S.C. § 1001.

[1495] Vermont PSB comments at 19.

[1496] Because the school, library, or consortium including such entities may not be willing to commit to the contract unless it receives a universal service support discount, we would expect that most of the former will choose to make their contracts contingent upon the approval of their funding request, just as purchases of real estate are often made contingent upon the approval of a mortgage.

[1497] Recommended Decision, 12 FCC Rcd at 396.

department, the fund administrator, or any other state or federal agency with jurisdiction that might, for example, suspect fraud or other illegal conduct, or merely be conducting a routine, random audit. We also agree with the Joint Board's recommendation and Vanguard's comments that eligibility for support be conditioned on schools' and libraries' consent to cooperate in future random compliance audits to ensure that the services are being used appropriately.[1498] The Commission, in consultation with the Department of Education, will engage and direct an independent auditor to conduct such random audits of schools and libraries as may be necessary. Such information will permit the Commission to determine whether universal service support policies require adjustment. We reject TCI's proposal for more formal annual reports as unnecessarily burdensome, given the likely costs of such reports.

582. Annual Carrier Notification Requirement. We agree with the Joint Board's recommendation and decline to impose a requirement that carriers annually notify schools and libraries about the availability of discounted services.[1499] As the Joint Board noted, many national representatives of school and library groups are participating in this proceeding, and we believe that these associations will inform their members of the opportunity to secure discounted telecommunications and other covered services under this program. For example, EDLINC alone represents more than two dozen educational associations.[1500] We encourage these groups to notify their members of the universal service programs through trade publications, websites, and conventions. In this regard, we note that the Commission has already participated in numerous outreach efforts aimed at disseminating information on the availability of universal service and support to schools and libraries.[1501] We also expect that providers of telecommunications services, Internet access, and internal connections will market to schools and libraries. Thus, while we concur with the Joint Board and decline to require provider notification to schools and libraries, we encourage service providers to notify each school and library association and state department of education in the states they serve of the availability of discounted services annually.

E. Funding Mechanisms for Schools and Libraries

1. Background

[1498] Recommended Decision, 12 FCC Rcd at 396; Vanguard comments at 7-8.

[1499] Recommended Decision, 12 FCC Rcd at 396.

[1500] EDLINC comments at app. A.

[1501] *See, e.g.,* Speech by Irene M. Flannery, Common Carrier Bureau, to Virginia Department of Education, Educational Technology Advisory Committee (Feb. 11, 1997).

583. Section 254(d) provides that "[e]very telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service."[1502] Section 254(h)(1)(B) states that a telecommunications carrier providing services to schools and libraries shall:

> (i) have an amount equal to the amount of the discount treated as an offset to its obligation to contribute to the mechanisms to preserve and advance universal service, or
> (ii) . . . receive reimbursement utilizing the support mechanisms to preserve and advance universal service.[1503]

584. In the Recommended Decision, the Joint Board recommended that the universal service administrator distribute support for schools and libraries from the same funds used to support other services under section 254, and that the administrator maintain separate accounting categories.[1504] The Joint Board also concluded that section 254(h)(1)(B) requires that a telecommunications carrier providing services to schools and libraries be permitted either to apply the amount of the discount afforded to schools and libraries as an offset to its universal service obligations or to be reimbursed for that amount from the universal service support mechanism.[1505]

2. Discussion

585. Separate Funding Mechanisms. We concur with the Joint Board's recommendation that the universal service administrator distribute support for schools and libraries from the same source of revenues used to support other universal service purposes under section 254 because we agree with the Joint Board's conclusion that establishing separate funds would yield minimal, if any, improvement in accountability, while imposing unnecessary administrative costs. We share Ameritech's concern that we must ensure proper accountability for and targeting of the funds for schools and libraries.[1506] We agree with the Joint Board that this goal is achievable if the fund administrator maintains separate accounting

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[1502] 47 U.S.C. § 254(d).

[1503] 47 U.S.C. § 254(h)(1)(B).

[1504] Recommended Decision, 12 FCC Rcd at 400.

[1505] Recommended Decision, 12 FCC Rcd at 400.

[1506] *See* Ameritech comments at 23.

categories.[1507]

586. Offset versus Reimbursement. Section 254(h)(1)(B) requires that a telecommunications carrier providing services to schools and libraries shall either apply the amount of the discount afforded to schools and libraries as an offset to its universal service contribution obligations or shall be reimbursed for that amount from universal service support mechanisms.[1508] We agree with the Joint Board's conclusion that section 254(h)(1)(B) requires that service providers be permitted to choose either reimbursement or offset.[1509] Consistent with EDLINC's suggestion,[1510] we reject GTE's proposal to permit service providers to demand full payment from schools and libraries, which would require the institutions to secure direct reimbursement from the administrator.[1511] We conclude that requiring schools and libraries to pay in full could create serious cash flow problems for many schools and libraries and would disproportionately affect the most disadvantaged schools and libraries. For purposes of administrative ease, we conclude that service providers, rather than schools and libraries, should seek compensation from the universal service administrator. Many telecommunications carriers will already be receiving funds from the administrator for existing high cost and low-income support, and the administrator would often be dealing with the same entities for the schools and libraries program. To require schools and libraries to seek direct reimbursement would also burden the administrator because of the large number of new entities that would be receiving funds. The GTE proposal would likely lead to monthly disbursements to tens of thousands of schools, school districts, and library systems, without yielding lower costs to either the support programs or schools or libraries.

F. Access to Advanced Telecommunications and Information Services

1. Background

587. Section 254(h)(2)(A) directs the Commission to establish "competitively neutral rules" to "enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms . . . and libraries."[1512] Section 254(h)(2)(B) directs the

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[1507] Recommended Decision, 12 FCC Rcd at 400.

[1508] 47 U.S.C. § 254(h)(1)(B).

[1509] Recommended Decision, 12 FCC Rcd at 400-401.

[1510] EDLINC comments at 15-16.

[1511] GTE comments at 102-104.

[1512] 47 U.S.C. § 254(h)(2)(A).

Commission to establish "competitively neutral rules" to "define the circumstances under which a telecommunications carrier may be required to connect its network to such public institutional telecommunications users."[1513] Access to advanced telecommunications services is also included within the six universal service principles established in section 254(b). Section 254(b)(6), captioned, "Access to Advanced Telecommunications Services for Schools, Health Care, and Libraries," states that "[e]lementary and secondary schools and classrooms, . . . and libraries should have access to advanced telecommunications services as described in subsection [254] (h)."[1514]

588. As discussed above, the Joint Board recommended that the Commission provide universal service support to schools and libraries for telecommunications services, Internet access, and internal connections. The Joint Board concluded that its recommendations for providing universal service support under section 254(h) would significantly increase the availability and deployment of telecommunications and information services for school classrooms and libraries, and found that additional steps were not needed to meet Congress's goal of enhancing access to advanced telecommunications and information services.[1515]

2. Discussion

589. As discussed above, we concur with the Joint Board's recommendation that we provide universal service support to eligible schools and libraries for telecommunications services, Internet access, and internal connections. We have, however, relied on sections 254(c)(3) and 254(h)(1)(B), rather than sections 254(h)(2)(A) as proposed by the Joint Board, because we believe the former are the more pertinent sections.[1516] In addition to the support for such services provided by telecommunications carriers under section 254(c)(3) and (h)(1)(B), discussed in sections X.B.2.b. and X.B.2.c. above, we also agree with the Joint Board's recommendation to provide discounts for Internet access and internal connections provided by non-telecommunications carriers,[1517] which we do under the authority of sections 254(h)(2)(A) and 4(i).

590. Many companies that are not themselves telecommunications carriers will be eligible to provide supported non-telecommunications services to eligible schools and libraries

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[1513] 47 U.S.C. § 254(h)(2)(B).

[1514] 47 U.S.C. § 254(b)(6).

[1515] Recommended Decision, 12 FCC Rcd at 409.

[1516] We also discuss below that sections 254(h)(2)(A) and 4(i) serve as an independent basis of authority.

[1517] Recommended Decision, 12 FCC Rcd at 323, 331-32, 335.

at a discount pursuant to section 254(h)(1) because they have subsidiaries or affiliates owned or controlled by them that are telecommunications carriers.[1518] In addition, to take advantage of the discounts provided by section 254(h)(1), non-telecommunications carriers can bid with telecommunications carriers through joint ventures, partnerships, or other business arrangements. They also have the option of establishing subsidiaries or affiliates owned or controlled by them that are telecommunications carriers, even if the scope of their telecommunications service activities is fairly limited. Given the ways in which non-telecommunications carriers can be reimbursed for providing discounts to eligible schools and libraries under section 254(h)(1), we conclude that it would create an artificial distinction to exclude those non-telecommunications carriers that do not have telecommunications carrier subsidiaries or affiliates owned or controlled by them, that choose not to create them, or that do not bid together with telecommunications carriers. This distinction is particularly problematic in light of the fact that, as discussed below, explicitly including non-telecommunications carriers, rather than requiring them to participate through subsidiaries, affiliates, or joint ventures, would further serve our competitive neutrality goal. Accordingly, pursuant to authority in sections 254(h)(2)(A) and 4(i) of the Act, non-telecommunications carriers will be eligible to provide the supported non-telecommunications services to schools and libraries at a discount.

591. Section 254(h)(2), in conjunction with Section 4(i),[1519] authorizes the Commission to establish discounts and funding mechanisms for advanced services provided by non-telecommunications carriers, in addition to the funding mechanisms for telecommunications carriers created pursuant to sections 254(c)(3) and 254(h)(1)(B). The language of section 254(h)(2) grants the Commission broad authority to enhance access to advanced telecommunications and information services, constrained only by the concepts of competitive neutrality, technical feasibility, and economical reasonableness. Thus, discounts and funding mechanisms that are competitively neutral, technically feasible, and economically reasonable that enhance access to advanced telecommunications and information services fall within the broad authority of section 254(h)(2).

592. Furthermore, unlike section 254(h)(1)(A) and (B), section 254(h)(2)(A) does not limit support to telecommunications carriers. Rather, section 254(h)(2)(A) *supplements* the discounts to telecommunications carriers established by section 254(h)(1) by expressly granting the Commission the authority and directing the Commission to "establish competitively neutral rules . . . to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and

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[1518] *See supra* section C.2.a. (discussing the geographic area served by a provider).

[1519] *See, e.g., Mobile Communications Corp. of America v. FCC*, 77 F.3d 1399 (D.C. Cir.), *cert. denied*, 117 S. Ct. 81 (1996).

non-profit elementary and secondary school classrooms . . . and libraries."[1520] This language is notably broader than the other provisions of section 254, including sections 254(h)(1)(A) and (1)(B) and, unlike these other sections, does not include the phrase "telecommunications carriers." Thus, contrary to arguments raised by many ILECs,[1521] we conclude that section 254(e), which provides that "only an eligible telecommunications carrier designated under section 214(e) shall be eligible to receive specific [f]ederal universal service support," is inapplicable to section 254(h)(2).[1522]

593. In this regard, section 254(e) limits the provision of federal universal service support to eligible telecommunications carriers designated under section 214(e). Section 214(e) requires "eligible telecommunications carriers" to "offer the services that are supported by [f]ederal universal service support mechanisms under section 254(c)."[1523] With respect to schools and libraries, the discount mechanism for those services designated for support under section 254(c) (specifically (c)(3)), is established by section 254(h)(1)(B). This statutory interrelationship demonstrates that the limitation set forth in section 254(e) pertains only to section 254(c) services, which, with respect to schools and libraries, is only relevant to section 254(h)(1)(B). This interpretation is further bolstered by the specific language set forth in section 254(h)(1)(B)(ii), which is an express exemption from the section 254(e) requirement for certain telecommunications carriers (i.e., those that are not "eligible" under section 214(e)). No such exemption language was required for section 254(h)(2)(A) because section 254(e) does not apply to that subsection.

594. We thus find that section 254(h)(2), in conjunction with section 4(i), permits us to empower schools and libraries to take the fullest advantage of competition to select the most cost-effective provider of Internet access and internal connections,[1524] in addition to telecommunications services, and allows us not to require schools and libraries to procure these supported services only as a bundled package with telecommunications services. This approach is consistent with the requirement in section 254(h)(2) that the rules established under it be "competitively neutral," as well as by the principle of competitive neutrality that we have concluded should be among those overarching principles shaping our universal

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[1520] 47 U.S.C § 254(h)(2)(A).

[1521] *See* Ameritech comments at 18-19; Bell Atlantic comments at 21; BellSouth comments at 25-28; PacTel comments at 38-39.

[1522] *See supra* section X.B.2.b., where we note that section 254(h)(1)(B) is not limited to "eligible telecommunications carriers." We read section 254(h)(2) as broadening, not limiting, the Commission's authority, and it would be anomalous if this expanded authority were limited to a subset of carriers.

[1523] 47 U.S.C. § 214(e).

[1524] *See supra* section X.C.2.a.

service policies.[1525] The goal of competitive neutrality would not be fully achieved if the Commission only provided support for non-telecommunications services such as Internet access and internal connections when provided by telecommunications carriers. In that situation, service providers not eligible for support because they are not telecommunications carriers would be at a disadvantage in competing to provide these services to schools and libraries, even if their services would be more cost-efficient.

595. Moreover, interpreting section 254(e) to deny schools and libraries access to discounted offerings from Internet service providers and providers of internal connections that are not telecommunications carriers would be inconsistent with the purpose of section 254(h)(2)(A). Limiting support to telecommunications carriers would reduce the sources from which schools and libraries could obtain discounted Internet access and internal connections, which would reduce competitive pressures on providers to cut their costs and prices and thus could lead to unnecessarily high pre-discount prices. We conclude that Congress intended that schools and libraries secure the most cost-effective, readily available Internet access and internal connections through vigorous competition among all service providers.

596. Further support for our conclusion can be found by comparing section 254(h)(1)(A), which applies only to "any public or nonprofit health care provider *that serves persons who reside in rural areas in that State*,"[1526] with section 254(h)(2), which applies to *all* health care providers. This difference in wording reinforces our conclusion that the charter section 254(h)(2) gives the Commission to "enhance access" to advanced information services encompasses more than the discount-setting obligations and support mechanisms provided to telecommunications carriers under subsection (h)(1). Indeed, in this regard, we note that sections 254(h)(2)(A) and 4(i) serve as an independent basis of authority for the rules adopted pursuant to sections 254(c)(3) and 254(h)(1)(B). For example, as some parties argue, to the extent internal connections are viewed as facilities rather than services,[1527] we have independent jurisdiction to include them in our discount program under authority of sections 254(h)(2)(A) and 4(i).

597. We also reject the argument that providing support to non-telecommunications carriers would violate the competitive neutrality requirement of section 254(h)(2)(A) because non-telecommunications carriers could benefit from universal service support but only

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[1525] *See supra* section III.

[1526] 47 U.S.C. § 254(h)(1)(A) (emphasis added).

[1527] *See* Recommended Decision, 12 FCC Rcd 331 n.1581 (*citing* AT&T NPRM reply comments at 21-22; GTE NPRM further comments at 13-15; Sprint NPRM further comments at 4; USTA NPRM further comments at 9-10; U S West NPRM further comments at 6-7).

telecommunications carriers would be required to contribute to that support.[1528] In section XIII below, we conclude that contribution obligations will be based on revenues from telecommunications. Neither telecommunications carriers nor non-telecommunications carriers will be required, however, to contribute to federal universal service support mechanisms based on their provision of Internet access and non-telecommunications internal connections. Thus, telecommunications carriers' contributions will not place them at a competitive disadvantage as providers of supported non-telecommunications services. Permitting both telecommunications carriers and non-telecommunications carriers to collect universal service support based on discounts afforded to eligible schools and libraries on Internet access and internal connections, therefore, meets the competitive neutrality requirement of section 254(h)(2)(A).

598. We also reject the argument advanced by some commenters that providing support for non-telecommunications carriers would violate the Origination Clause of the United States Constitution,[1529] which states that all bills for raising revenue must originate in the House of Representatives.[1530] These parties assert that, because section 254 originated in the Senate, requiring telecommunications carriers to contribute to universal service support mechanisms from which non-contributors can draw violates the Origination Clause. This argument fails, however, because the fact that the statute allows discounts to be provided to schools and libraries for services provided by non-telecommunications carriers does not convert this valid statute into a revenue-raising measure within the meaning of the Origination Clause. The D.C. Circuit has held that "a regulation is a tax only when its primary purpose judged in legal context is raising revenue."[1531] The purpose of section 254(h)(2)(A), however, is to enhance access of schools and libraries to advanced telecommunications and information services, not to raise general revenues. We conclude, therefore, that the schools and libraries program does not violate the Origination Clause.

599. We thus conclude that the same non-telecommunications services eligible for discounts if provided by telecommunications carriers under section 254(h)(1)(B) are eligible for discounts if provided by non-telecommunications carriers under section 254(h)(2)(A). Furthermore, though the rules called for by section 254(h)(2)(A) are not required to mirror the

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[1528] *See* NYNEX comments at 40; PacTel comments at 39.

[1529] U.S. Const., Art. I, § 7, cl. 1.

[1530] *See, e.g.*, ALLTEL comments at 5; PacTel comments at 43; SBC comments at 46-49; Georgia PSC reply comments at 25-26.

[1531] *See, e.g., Brock v. Washington Metropolitan Area Transit Authority* 796 F.2d 481, 488 (D.C. Cir. 1986). *See also Rural Telephone Coalition v. FCC*, 838 F.2d 1307, 1314 (D.C. Cir. 1988) (finding that allocation of 25 percent of "non-traffic sensitive" local telephone exchange costs to interstate jurisdiction so they could be recovered from IXCs was not a tax because primary purpose was not to raise revenue).

discount schedule in section 254(h)(1)(B), we have authority to "enhance access" in this manner. Thus, the requirements that apply to the discount program for services provided by telecommunications carriers, discussed throughout this section, will apply to the discount program for services provided by non-telecommunications carriers, with one exception. Non-telecommunications carriers that are not required to contribute to universal service support mechanisms will be entitled only to reimbursement for the amount of the discount afforded to eligible schools and libraries under section 254(h)(1)(B), whereas telecommunications carriers will be entitled to either reimbursement or an offset to their obligation to contribute to universal service support mechanisms.[1532] Finally, we conclude that although sections 254(c)(3) and 254(h)(1)(B) on the one hand and sections 254(h)(2)(A) and 4(i) on the other hand authorize funding mechanisms under separate statutory authority, these funds can and should be combined into a single fund as a matter of administrative convenience.

600. New York DOE asserts that the Joint Board's recommendation provides no assurances that schools will take advantage of the discounts available under section 254(h)(2) to purchase advanced services rather than simply seeking discounts on the telecommunications services that they currently order.[1533] We note that POTS lines can be used to access sophisticated information services. We also agree, however, with the Joint Board's conclusion that our actions providing universal service support under section 254(h) will significantly increase the availability and deployment of telecommunications and information services for school classrooms and libraries.[1534] We find that the many requests from commenters that we include access to services using high capacity, including T-1 and T-3 lines, or functionalities such as video conferencing for distance learning, confirm that demand for these services actually exists.[1535] We also concur with the Joint Board's finding that additional steps are not needed at this time to meet Congress's goal of enhancing access to advanced telecommunications and information services,[1536] other than those taken here. Given the discounts available to schools and libraries and their recognition of the importance of providing students with the technological literacy they will need to survive in an information society, we agree with the Joint Board's reasoning and conclude that our action will promote access to advanced telecommunications services.

[1532] 47 U.S.C. § 254(h)(1)(B). *See supra* section X.E. for a discussion of funding mechanisms for schools and libraries.

[1533] New York DOE comments at 10.

[1534] Recommended Decision, 12 FCC Rcd at 409.

[1535] *See, e.g.,* Louisiana PSC NPRM comments at 5-6; Missouri PSC NPRM comments at 14; New York Regents NPRM comments at 10; North of Boston Library Exchange NPRM comments at 1; Apple comments at 4; New York DOE comments at 6.

[1536] Recommended Decision, 12 FCC Rcd at 409.

G. Sections 706 and 708 of the 1996 Act

1. Background

601. Section 706 of the 1996 Act directs the Commission and the states to "encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulatory methods that remove barriers to infrastructure investment."[1537] Section 706 directs the Commission to initiate a Notice of Inquiry within 30 months after enactment of the 1996 Act, i.e., by August 8, 1998, and to complete the inquiry within 180 days of its initiation.[1538]

602. Section 708 of the 1996 Act recognizes the National Education Technology Funding Corporation "as a nonprofit corporation operating under the laws of the District of Columbia, and . . . provide[s] authority for Federal departments and agencies to provide assistance to the Corporation."[1539] The purposes of the National Education Technology Funding Corporation include leveraging resources and stimulating investment in educational technology, designating state educational agencies to receive loans or grants from the Corporation, providing loans and grants to state education technology agencies, and encouraging the development of education telecommunications and information technologies through public-private ventures.[1540] Section 708 also states that "the [National Education Technology Funding] Corporation shall be eligible to receive discretionary grants, contracts, gifts, contributions, or technical assistance from any Federal department or agency, to the extent otherwise permitted by law."[1541]

603. In the Recommended Decision, the Joint Board concluded that Congress contemplated that section 706 would be the subject of a separate rulemaking proceeding and, therefore, declined to consider section 706 in the context of the section 254 rulemaking proceeding.[1542] Moreover, the Joint Board did not rely on section 708 to provide advanced

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[1537] 1996 Act, sec. 706(a).

[1538] 1996 Act, sec. 706(b).

[1539] 1996 Act, sec. 708(a)(2).

[1540] 1996 Act, sec. 708(a)(1)(C).

[1541] 1996 Act, sec. 708(c)(1).

[1542] Recommended Decision, 12 FCC Rcd at 403.

services to schools and libraries within the context of this proceeding, and concluded that section 708 should be considered further after implementation of section 254.[1543]

2. Discussion

604. Section 254 recognizes the growing importance of technological literacy for successful participation in society and expands the concept of universal service to include assistance for schools and libraries in making technology available to students and the general public. As discussed above, section 254 will help provide support for the deployment of technology to classrooms and libraries across the nation. We recognize that sections 706 and 708 include requirements that would complement the goal of widespread availability of advanced telecommunications services. We concur with the Joint Board's conclusion, however, that Congress contemplated that section 706 would be the subject of a separate rulemaking proceeding. In section 706, Congress directed us to initiate a notice of inquiry within 30 months after the enactment of the 1996 Act, and it further directed us to complete that rulemaking proceeding within 180 days after its initiation.[1544] These statutory deadlines differ from the deadlines imposed on the section 254 rulemaking proceeding. The only specific proposal for implementing section 706 we received is made by GI, which recommended that we make Internet access and advanced services eligible for universal service support,[1545] both of which we are implementing for schools and libraries under the authority of section 254. Thus, we defer action on section 706 until we can develop a more complete record through a separate proceeding. We agree with the Joint Board, therefore, and decline to consider section 706 in the context of this proceeding.

605. Although we do not rely on section 706 in this proceeding, we note that section 706 reinforces the goals of section 254 by requiring the Commission and the states to encourage carriers to deploy "advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms)" through the utilization of "price cap regulation, regulatory forbearance, measures that promote competition in local telecommunications market, or other regulating methods that remove barriers to infrastructure investment."[1546] We support the goals of section 706, as evidenced by our actions in this proceeding, and will consider section 706 separately rather than in this rulemaking proceeding. Moreover, we agree with the Joint Board's recommendation, as well as its underlying reasoning, that we not rely on section 708 to provide advanced services to

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[1543] Recommended Decision, 12 FCC Rcd at 404.

[1544] 1996 Act, sec. 706(b).

[1545] GI reply comments at 3-4.

[1546] 1996 Act, § 706(a).

schools and libraries within the context of this proceeding. We also agree with the Joint Board and conclude that section 708 should be considered further after implementation of section 254.[1547]

H. Initiation

1. Background

606. The Joint Board recommended that the Commission adopt rules that will permit schools and libraries to begin using discounted services ordered pursuant to section 254(h) at the start of the 1997 - 1998 school year.[1548] The Joint Board anticipated that schools and libraries may begin complying with the self-certification requirements as soon as the Commission's rules become effective.[1549]

2. Discussion

607. We concur with the Joint Board's recommendation and conclude that we adopt rules implementing the schools and libraries discount program at the start of the 1997 - 1998 school year. As discussed above, we also conclude that the funding year will be the calendar year and that support will begin to flow on January 1, 1998.

[1547] Recommended Decision, 12 FCC Rcd at 404.

[1548] Recommended Decision, 12 FCC Rcd at 409.

[1549] Recommended Decision, 12 FCC Rcd at 409.

XI. HEALTH CARE PROVIDERS

A. Overview

608. In this section, we conclude that all public and non-profit health care providers that are located in rural areas and meet the statutory definition set forth in section 254(h)(5)(B) are eligible for support under section 254(h)(1)(A). We conclude that under section 254(h)(1)(A), any telecommunications service of a bandwidth up to and including 1.544 Mbps that is necessary for the provision of health care services is eligible for support. We establish limits on the supported services that a rural health care provider may obtain. We also require telecommunications carriers to charge rural health care providers a rate for a supported service that is no higher than the highest tariffed or publicly available rate charged by a carrier to a commercial customer for a similar service in the state's closest city with a population of at least 50,000, taking distance charges into account. In addition, we conclude that a carrier that provides telecommunications services to eligible health care providers at reduced rates may recover the difference, if any, between the rate for similar services provided to other customers in comparable rural areas of the state and the rate charged to the rural health care provider for such services. Pursuant to section 254(h)(2)(A), we provide limited support for toll-free access to an Internet service provider for all health care providers, regardless of their location. Recognizing that section 254 requires that universal service support mechanisms be specific, predictable, and sufficient, we establish support subject to a $400 million annual cap.

B. Services Eligible for Support

1. Background

609. Section 254(c)(1) gives the Commission and Joint Board responsibility for defining a group of core services eligible for federal universal service support.[1550] Section 254(c)(3) provides the Commission with separate authority to designate, in addition to core telecommunications services, "additional" services as eligible for support for public and non-profit health care providers pursuant to section 254(h).[1551]

610. In the Joint Explanatory Statement, Congress explained that section 254(h) is intended "to ensure that health care providers for rural areas . . . have affordable access to modern telecommunications services that will enable them to provide medical . . . services to

[1550] For a discussion of section 254(c)(1) and core services, *see supra* section IV.B.

[1551] 47 U.S.C. § 254(c)(3).

all parts of the Nation."[1552] The Joint Explanatory Statement also noted that the definition of services to be supported by universal service support mechanisms is an evolving one, and "[t]he Commission is given specific authority to alter the definition from time to time,"[1553] and pursuant to 254(c)(3), to specify a separate definition of universal service that would apply only to public institutional telecommunications users.[1554] The Joint Explanatory Statement indicated that "the conferees expect the Commission and the Joint Board to take into account the particular needs of hospitals" in formulating the latter definition.[1555]

611. After the NPRM was issued, the Commission established the Advisory Committee on Telecommunications and Health Care (Advisory Committee).[1556] In its report, issued prior to the Joint Board's Recommended Decision, the Advisory Committee described what it called its "market basket" of "essential telemedicine[1557] applications."[1558] The Advisory Committee developed the market basket as a guide to the level of

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[1552] Joint Explanatory Statement at 132.

[1553] Joint Explanatory Statement at 131.

[1554] Joint Explanatory Statement at 133. The term "public institutional telecommunications user" is defined in § 47 U.S.C. § 254(h)(5)(c) to include "a health care provider." The term "health care provider" is defined in section 254(h)(5)(B) to mean: "(i) post-secondary educational institutions offering health care instruction, teaching hospitals and medical schools; (ii) community health centers or health centers providing health care to migrants; (iii) local health departments or agencies; (iv) community mental health clinics; (v) not-for-profit hospitals; (vi) rural health clinics; and (vii) consortia of health care providers consisting of one or more entities described in clauses (i) through (vii)."

[1555] Joint Explanatory Statement at 133.

[1556] The Advisory Committee was established on June 12, 1996 to advise the Commission and the Joint Board on telemedicine, and particularly the provisions of the Telecommunications Act of 1996 relating to rural health care providers. The Advisory Committee, composed of 38 individuals with expertise and experience in the fields of health care, telecommunications, and telemedicine, issued its report on October 15, 1996.

[1557] For purposes of this Order, we consider the terms "telemedicine," "telehealth," "telemedicinal applications," and "telemedicine-related services" to be interchangeable. The Joint Working Group on Telemedicine defines "telemedicine" as "the use of telecommunications and information [service] technologies for the provision and support of clinical care to individuals at a distance and the transmission of information needed to provide that care." It defines "telehealth" as including clinical care, but additionally encompassing the related areas of "health professionals' education, consumer health education, public health, research and administration of health services." *See* JOINT WORKING GROUP ON TELEMEDICINE, TELEMEDICINE REPORT TO THE CONGRESS at 90, U.S. Department of Commerce (1997) (Joint Working Group Report).

[1558] FCC ADVISORY COMMITTEE ON TELECOMMUNICATIONS AND HEALTH CARE, FINDINGS AND RECOMMENDATIONS (October 15, 1996)(Advisory Committee Report) at 6-7.

telecommunications services "necessary to support rural telemedicine efforts."[1559] The applications in the market basket include: 1) health care provider-to-provider consultation between professionals in rural hospitals and clinics, and professionals in other locations, including the capability to transmit data and medical images such as x-rays; 2) provider-to-patient consultation, including the examination or counseling in a multimedia format of patients in rural hospitals and clinics by professionals in urban hospitals using diagnostic devices such as electronic stethoscopes, ophthalmoscopes, otoscopes, EKGs and others; 3) continuing medical education programs for rural physicians and other health care providers; 4) round-the-clock support (including triage) from physicians and specialists either at urban centers or at a local physician's office; 5) a comprehensive set of specialty services -- such as radiology, dermatology, selected cardiology, pathology, obstetrics (fetal monitoring), pediatric, and mental health/psychiatric services -- the diagnostics, data, and images of which should be able to be transmitted at high speed; and 6) interaction between emergency departments and trauma centers in urban areas and helicopters and ambulances at the scene of emergencies in rural areas.[1560]

612. The Advisory Committee recommended that the Commission limit universal service support to services of bandwidths up to and including 1.544 Mbps or its equivalent.[1561] The Advisory Committee called this "the minimum bandwidth necessary" to allow eligible health care practitioners to "access the basic set of telecommunications applications necessary for health care in rural areas"[1562] and recommended that health care providers be able to choose what services they need and obtain support for any telecommunications services up to that bandwidth.[1563] Although it found that the bandwidth needs of a health care provider vary by the size of a facility and number of patients it serves, the Advisory Committee declined to recommend limiting the telecommunications services available for support based on a facility's size.[1564] The Advisory Committee concluded that because health care providers would still be paying rates comparable to those charged in urban areas, these market prices would provide a strong incentive for health care providers to

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[1559] Advisory Committee Report at 6-7.

[1560] Advisory Committee Report at 6-7; *see also* AMSC comments at 5-6 (urging the Commission to support mobile telecommunications services to ambulances and other emergency medical vehicles).

[1561] Advisory Committee Report at 1-2. 1.544 Mbps is a digital rate of data transmission of one million five hundred forty four thousand bits per second.

[1562] Advisory Committee Report at 1-2.

[1563] Advisory Committee Report at 1.

[1564] Advisory Committee Report at 7.

"self-monitor" and avoid excessive use of supported services.[1565] The Advisory Committee also recommended toll-free access to the Internet -- providing access to services such as electronic mail, the most current health care information, and collaborative applications -- be included in the list of telecommunications services necessary for the provision of health care in a state.[1566] In addition, the Advisory Committee recommended that an eligible telecommunications carrier receive universal service support to build, upgrade, or extend its backbone infrastructure so it could offer telecommunications services necessary for the provision of health care to all eligible health care providers in the rural areas it served.[1567] The Advisory Committee recommended, that if backbone facilities that had been extended or upgraded with universal service funds were used by other non-eligible customers of the carrier, there should be mechanisms to recover the supported costs of the infrastructure from the profits obtained from serving such customers.[1568]

613. In the Recommended Decision, the Joint Board concluded that the information on the record was insufficient to support a recommendation on the scope of services to be supported for health care providers.[1569] The Joint Board recommended that the Commission solicit information and expert assessment on the exact scope of services that are "necessary for the provision of health care in a state."[1570] The Joint Board concluded that only telecommunications services should be designated eligible for support[1571] and recommended that the Commission seek information on the telecommunications needs of rural health providers and the most cost-effective ways of providing needed services.[1572] The Joint Board also recommended that the Commission support terminating as well as originating services, when the eligible provider incurs such charges;[1573] that the Commission not designate customer premises equipment as eligible for support;[1574] and that the Commission revisit the

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[1565] Advisory Committee Report at 7.

[1566] Advisory Committee Report at 4, 6-7.

[1567] Advisory Committee Report at 8.

[1568] Advisory Committee Report at 8.

[1569] Recommended Decision, 12 FCC Rcd at 421.

[1570] Recommended Decision, 12 FCC Rcd at 421.

[1571] Recommended Decision, 12 FCC Rcd at 421.

[1572] Recommended Decision, 12 FCC Rcd at 421.

[1573] Recommended Decision, 12 FCC Rcd at 421.

[1574] Recommended Decision, 12 FCC Rcd at 421.

list of supported additional services by the year 2001, when the Commission is scheduled to re-convene a Joint Board on Universal Service.[1575]

614. The Joint Board found insufficient information in the record to justify a recommendation of support for Internet access for rural health care providers. The Joint Board recommended that the Commission seek information on both the rate of expansion of local access coverage of Internet service providers in rural areas of the country and the costs likely to be incurred in providing toll-free Internet access to health care providers in rural areas.[1576] The Joint Board also found insufficient evidence on the record to justify a recommendation that the Commission authorize support for upgrades to the public switched or backbone networks when such upgrades can be shown to be necessary to deliver services to eligible health care providers.[1577] The Joint Board recommended that the Commission seek additional information on the probable costs, advantages, and disadvantages of supporting such upgrades.[1578]

615. In the Recommended Decision Public Notice, the Common Carrier Bureau sought information about the exact scope of services that should be included in the definition of services "necessary for the provision of health care in a State" and the most cost-effective way to provide such services.[1579] The Bureau also sought comment on the relative costs and benefits of supporting technologies and services that require bandwidth higher than 1.544 Mbps.[1580] Moreover, the Bureau sought comment on the costs of supporting upgrades to the public switched network and inquired to what extent, and on what schedule, ongoing network modernization might make such upgrades unnecessary.[1581] In addition, the Bureau sought comment on the probable costs, advantages, and disadvantages of supporting upgrades to the public switched or backbone networks when such upgrades can be shown to be necessary to deliver eligible services to rural health care providers.[1582]

[1575] Recommended Decision, 12 FCC Rcd at 422.

[1576] Recommended Decision, 12 FCC Rcd at 427.

[1577] Recommended Decision, 12 FCC Rcd at 432.

[1578] Recommended Decision, 12 FCC Rcd at 432.

[1579] Recommended Decision Public Notice at 2.

[1580] Recommended Decision Public Notice at 2.

[1581] Recommended Decision Public Notice at 2.

[1582] Recommended Decision Public Notice at 2.

2. Discussion

616. Medical Applications Eligible for Support. In the Recommended Decision, the Joint Board concluded that the information on the record was insufficient to support a recommendation on the scope of services to be supported for health care providers[1583] and recommended that the Commission solicit information and expert assessment on the exact scope of services that are "necessary for the provision of health care in a state."[1584] Consistent with the record developed as a result of the Joint Board recommendation, we agree with those commenters suggesting that health care providers themselves are best able to determine those medical applications that should be provided by means of supported telecommunications services.[1585]

617. Commenters submitted a comprehensive, if not exhaustive, list of medical applications that use telecommunications services, including the "market basket" developed by the Advisory Committee.[1586] We reject the suggestions of some commenters that "health care services"[1587] must or should be defined to include only patient care, diagnosis, and treatment,[1588] or to exclude general administrative lines[1589] or all bedside services.[1590] Because the definition of "health care provider" includes, for example, local health departments or agencies and post-secondary educational institutions,[1591] we conclude that Congress did not intend to limit support solely to telecommunications services used for individual patient care.[1592] We also agree with those commenters suggesting that telecommunications services

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[1583] Recommended Decision, 12 FCC Rcd at 421.

[1584] Recommended Decision, 12 FCC Rcd at 421.

[1585] *See* Advisory Committee Report at 7; West Virginia Consumer Advocate comments at 13; Wyoming PSC comments at 12.

[1586] *See* Advisory Committee Report at 6-7. *See e.g.,* AAMC comments at 2-3; AHA comments 5; Alaska PSC comments at 5; Ameritech comments at 25; Kansas Hospital Association comments at 1; Nebraska Hospitals comments at 1-2; Nurse Practitioners comments at 2-3; RTC comments at 45-46; St. Alexius comments at 1.

[1587] *See* 47 U.S.C. § 254(h)(1)(A).

[1588] *See* SBC comments at 10.

[1589] *See* SBC comments at 10.

[1590] *See* AT&T comments at 24 n. 15; PacTel comments at 54; SBC comments at 10.

[1591] *See* 47 U.S.C. § 254(h)(5)(i) and (iii).

[1592] *See* Ameritech comments at 25; PacTel comments at 54; SBC comments at 10.

used by public health agencies to provide health-related services -- including the education of the public and the health care community about matters of importance to public health; the collection and dissemination of public health data to appropriate government entities; the coordination of the public response to disasters; and the prevention and control of disease -- should be eligible for universal service support.[1593] We further agree with commenters that in times of disaster, the ability of these agencies to have ready access to information from each other and from federal emergency and health-management agencies will prevent disease and save lives, and therefore their ability to communicate electronically is important to the health of local communities, the states, and the nation.[1594] Accordingly, we find that "public health services" are "health care services"[1595] for purposes of section 254(h), and as such, the associated telecommunications services necessary to provide such services may be supported by universal service support mechanisms, consistent with the requirements of section 254(h).[1596] For purposes of section 254, we define "public health services" to mean health-related services, including non-clinical, informational, and educational public health services, that local public health departments or agencies are charged with performing under federal

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[1593] 47 U.S.C. § 254(h)(1)(A). *See* APHA comments at 1; ASTHO comments at 2; Ford County Health Department comments at 1; Grant County Health Department comments at 1; Gray County Health Department comments at 1; Livingston County Public Health Department comments at 1; Marquette County Health Department comments at 1; Mitchell County Health Dept. comments at 1; Osage County Health Department comments at 1; Osborne County Health Department comments at 1; Phillips County Health Department comments at 1; Russell County Health Department comments at 1; Stanton County Health Department at 1. *See also* HHS comments at 2 (describing public health services -- including transmission of preventive health data, reports of epidemiological investigations, guidelines for delivery of preventive services, training materials, and emergency notices; professional tele-consultation with two-way interactive audio and video, access to health data and information via Internet, and multi-point consultation for health emergencies -- as health care services requiring and eligible for supported telecommunications services).

[1594] *See* APHA comments at 1; Ford County Health Department comments at 1; Grant County Health Department comments at 1; Gray County Health Department comments at 1; Livingston County Public Health Department comments at 1; Marquette County Health Department comments at 1; Mitchell County Health Dept. comments at 1; Osage County Health Department comments at 1; Osborne County Health Department comments at 1; Phillips County Health Department comments at 1; Russell County Health Department comments at 1; Stanton County Health Department at 1.

[1595] 47 U.S.C. § 254(h)(1)(A).

[1596] 47 U.S.C. § 254(h). HHS suggests that the Commission adopt the broader term "telehealth" in preference to the term "telemedicine" in referring to health-related telecommunications applications including public health applications in order to avoid possible ambiguity as to whether the support we describe here covers such non-clinical-care services. *See* Letter from Donna E. Shalala, Secretary of HHS, to Reed E. Hundt, Chmn. FCC, dated Dec. 19, 1996 (HHS Dec. 19 *ex parte*), transmittal letter at 1. Because we do not use either of these terms to define the services supported under this section, and because we clearly define non-clinical, public health services as eligible for support, we decline to adopt either term and treat the terms "telemedicine" and "telehealth," when used by commenters or otherwise in this Order, as interchangeable. *See supra,* § XI.B.1.

and state laws.[1597]

618. Moreover, we disagree with those commenters that urge an unduly strict interpretation of the phrase "*necessary* for the provision of health care services."[1598] As the Commission has concluded in other contexts, the meaning of the term "necessary" depends on the purposes of the statutory provision in which it is found.[1599] We find that the phrase "necessary for the provision of health care services . . . including instruction relating to such services" means reasonably related to the provision of health care services or instruction because we find that a broad reading of the phrase is consistent with the purpose of section 254(h) which, as Congress has stated, is, in part, "to ensure that health care providers for rural areas . . . have affordable access to modern telecommunications services that will enable them to provide medical . . . services to all parts of the nation."[1600]

619. We emphasize that the determination of what "additional services"[1601] should be eligible for support is not expressly limited by the considerations listed in section

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[1597] *See* HHS Dec. 19 *ex parte*, attachment THE ROLE OF PUBLIC HEALTH IN PREVENTION AND MEDICAL CARE at 1 (stating that, among other things, public health educates people about healthy lifestyles; monitors and controls infectious diseases by tracking disease, controlling outbreaks, and promoting immunizations; researches the cause of disease and injury).

[1598] 47 U.S.C. § 254(h)(1)(A) (emphasis added). *See*, e.g., USTA comments at 39 (distinguishing between those services that are "necessary" and those that are "desirable" and proposing that only necessary services be supported); SBC comments at 10 (advocating that support be limited to services that are "required" and "used solely" to enhance delivery of patient care or for patient diagnostic activities and treatment).

[1599] *See* New England Public Communications Council Petition for Preemption Pursuant to Section 253, *Memorandum Opinion and Order,* CCBPol Docket No. 96-11, FCC 96-470 (rel. Dec. 10, 1996) at para. 24 (*New England Preemption Order*) (stating that although "[a]s a matter of statutory construction, it is generally accepted that the same language used repeatedly in a statute is presumed to bear the same meaning throughout the statute" this presumption may be "disregarded where it is necessary to assign different meanings to the same word to make the statute consistent" (*citing Atlantic Cleaners and Dyers, Inc. v. United States,* 286 U.S. 427, 433 (1932))). For example, in the *Local Competition Order,* we concluded that although the term "necessary" as used in section 254(c)(6) could be interpreted to mean "indispensable," in that provision it should be construed to mean "used" or "useful." *Local Competition Order,* 11 FCC Rcd at 15794.

[1600] *See* Joint Explanatory Statement at 132.

[1601] *See* 47 U.S.C. § 254(c)(3). This provision states: "[i]n addition to the services included in the definition of universal services under paragraph (1), the Commisssion may designate additional services for such support mechanisms for . . . health care providers for the purposes of subsection (h)."

254(c)(1).[1602] Those considerations are relevant to the establishment of core universal services and are not determinative of which "additional" services should receive support for health care providers under the language of section 254(c)(3).[1603] We note that the certification requirements that we adopt today, in particular the requirement that the health care provider certify that the requested service will be used exclusively for purposes reasonably related to the provision of health care services or instruction that the health care provider is legally authorized to provide under applicable state law, will help ensure that only eligible services are funded.[1604]

620. Bandwidth Limitations. We conclude that, within the limitations described below, universal service support mechanisms for health care providers should support commercially available services of bandwidths up to and including 1.544 Mbps, or the equivalent transmission speed, but not higher speeds. The Joint Board indicated that the Advisory Committee and a majority of the NPRM commenters that recommended a specific level of bandwidth capacity concluded that health care professionals should be able to choose among any telecommunications services of bandwidths up to and including 1.544 Mbps.[1605] The Joint Board, however, did not make a specific recommendation endorsing this bandwidth limitation, instead recommending that the Commission seek more information on the telecommunications needs of rural health care providers and the most cost-effective ways of providing the needed services.[1606]

621. The majority of parties filing comments following the Recommended Decision agree that telecommunications services necessary for the provision of health care services use bandwidth capacity up to and including 1.544 Mbps.[1607] Only one commenter suggests that a

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[1602] 47 U.S.C. § 254(c)(1) (requiring the Joint Board in recommending, and the Commission in establishing, the definition of services that are supported by federal universal service support mechanisms to consider, among other things, "the extent to which such telecommunications services . . . (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers; and (C) are being deployed in public telecommunications networks by telecommunications carriers"). *See* BellSouth comments at 41; PacTel comments at 54; SBC comments at 10; USTA comments at 39-40.

[1603] *See* 47 U.S.C. § 254(c)(3).

[1604] *See infra* section XI.F.2.

[1605] *See* Advisory Committee Report at 1-2; Recommended Decision, 12 FCC Rcd at 420.

[1606] *See* Recommended Decision, 12 FCC Rcd at 421.

[1607] *See, e.g.,* Alaska PUC comments at 5; Ameritech comments at 25 (asserting that overwhelming majority of telemedicine applications can be supported by bandwidths ranging from 384 Kbps to 1.544 Mbps); Apple comments at 4; BellSouth comments at 41; HHS comments at 2-4 (contending that the Commission should allow providers to choose any service up to 1.544 Mbps); LCI comments at 13; MCI comments at 19 (stating that

bandwidth limitation at some level below 1.544 Mbps might be appropriate. U S West, which prefers that the Commission set no limit on supported services, contends that if the Commission decides to mandate a particular service, the Commission should designate Private Line Transport Service at 56/64 Kbps. U S West asserts that this level of bandwidth "will adequately meet the various needs of rural health care providers."[1608] Both PacTel and American Telemedicine, which previously suggested that limiting support to ISDN levels would be sufficient,[1609] now acknowledge that some carriers might find it more cost-effective to provide services up to T-1 speeds[1610] and that 1.544 Mbps is necessary for some real-time interactive emergency and diagnostic-quality video applications.[1611] In particular, commenters indicate that in certain situations involving transmission of video images for diagnostic purposes, limiting support to lesser bandwidths could result in receipt of inconsistent, unstable, or discontinuous images that could increase the risk of inaccurate diagnosis or incorrect treatment.[1612] Moreover, commenters report that services with lesser transmission capacity add significant delay to the transmission of possibly time-critical medical images. For example, the transmission of a single study of chest X-rays containing four film images would take 3.5 hours to transmit over a 28.8 modem, 40 minutes over an ISDN line, and only 4 minutes over a T-1 line at 1.544 Mbps.[1613] We find that this evidence is persuasive and supports the conclusion that bandwidths up to and including 1.544 Mbps are necessary for the provision of health care services.

622. Only one commenter, iSCAN L.P., seeks support for services using bandwidths

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"support should be limited to advanced services such as T-1 service"); SBC comments at 10; University of Nevada School of Medicine comments at 1 (urging that "support should be provided to rural communities for services of at least the equivalent of T-1 capacity"); USTA comments at 39-40 ("necessary communications services should be limited to those supporting a capacity of up to and including 1.544 Mbps speed or its equivalent"); U S West comments at 51.

[1608] U S West comments at 51. *But compare* Association for Computing Machinery comments at 1 (stating that "[t]he telecommunications bandwidth required to support real-time access and/or high resolution medical imagery is among the highest required for any computing application so the issue is more than simply universal service, high bandwidth is also needed").

[1609] *See* PacTel NPRM comments at 9; PacTel comments at 54.

[1610] PacTel reply comments at 29.

[1611] American Telemedicine comments at 3.

[1612] *See* St. Alexius comments at 1.

[1613] ORHP/HHS NPRM comments at 9.

higher than 1.544 Mbps.[1614] Several other commenters, including the Advisory Committee, contend that the high costs of supporting such telecommunications services would outweigh the benefits and assert that such services are not necessary for the provision of health care services at the present time.[1615] Accordingly, we find that the weight of the record evidence demonstrates that these higher bandwidth services are not presently necessary for the "provision of health care services in a State."[1616] We also find that the record indicates vastly higher costs implicated in supporting services that employ bandwidths higher than 1.544 Mbps.[1617] Like the Joint Board, we are mindful of the need to balance the needs of persons residing in rural areas of the state for telecommunications services necessary for the provision of health care with the costs of such services.[1618] This need for balance, coupled with most commenters' assertions that services with bandwidth greater than 1.544 Mbps are presently unnecessary for the provision of health care leads us to conclude that the cost of supporting such higher bandwidth services greatly exceeds the potential benefits of supporting such services at this time.

623. Because we agree that transmission speeds above 1.544 Mbps are not necessary for the provision of health care services at the present time,[1619] and their cost outweighs the additional benefits they offer,[1620] we reject the suggestions of those commenters that urge us not to limit eligible services.[1621] Moreover, given the strength of record support for these rulings, we decline to require states to establish committees to deliberate on these

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[1614] iSCAN L.P. comments at 3-5.

[1615] *See, e,g,*. AAMC comments at 1-2; Ameritech comments at 25; BellSouth comments at 13; Kansas Hospital Association comments at 2; Nebraska Hospitals comments at 2; MCI comments at 19; SBC comments at 4; USTA comments at 39; Wyoming PSC comments at 13.

[1616] *See, e,g.*, Ameritech comments at 25; Advisory Committee Report at 8; BellSouth comments at 13; AAMC comments at 1-2; Kansas Hospital Association comments at 2; MCI comments at 19; Nebraska Hospitals comments at 2; SBC comments at 4; USTA comments at 39; Wyoming PSC comments at 13.

[1617] *See, e.g.*, iSCAN L.P. comments at 3 (stating that cost of 1.544 Mbps telecommunications link between Columbia, S.C. and Charleston, S.C. is approximately $1,968 per month compared to approximately $4,340 per month for 8 Mbps link).

[1618] *See* Recommended Decision, 12 FCC Rcd at 431.

[1619] *See, e.g.*, Ameritech comments at 24-25; Nebraska Hospitals comments at 1-2; BellSouth reply comments at 13.

[1620] *See, e.g.*, Kansas Hospital Association comments at 2.

[1621] *See, e.g.*, United Health Services comments at 2; West Virginia Consumer Advocate comments at 13; Wyoming PSC comments at 12 (stating that supported services should be determined by health care providers with little restriction from regulators).

questions as one commenter proposes, instead establishing a guideline making state-by-state determinations unnecessary.[1622] We also conclude that telecommunications carriers should not determine what telecommunications services health care providers should use or which should be eligible for support,[1623] because we believe that health care providers are best able to determine what telecommunications services best meet their needs and are within their budgets.

624. Consistent with the Joint Board recommendation, we clarify that the support mechanisms discussed in this section support telecommunications services, not the particular facilities over which such services are provided.[1624] Therefore, services operating within the bandwidth limitation may be carried over facilities capable of carrying services at higher bandwidths, so long as the provisions for calculating support set forth herein are followed.[1625] Accordingly, using for purposes of example some of the services described by commenters, Frame Relay Service,[1626] Private Line Transport Service,[1627] ISDN,[1628] satellite communications,[1629] unlicensed spread spectrum,[1630] non-consumer, point-to-point services,[1631] and similar services, when provided by a telecommunications carrier at speeds not exceeding 1.544 Mbps, and requested and certified as necessary by an eligible health care provider, will be eligible for support.

625. Bifurcated Support. We agree with the Advisory Committee[1632] and decline to adopt the suggestion of several commenters that we create two tiers of support for eligible

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[1622] *See* University of Nevada School of Medicine comments at 1-2.

[1623] *See* PacTel comments at 29; SBC comments at 25; Sprint comments at 4.

[1624] *See* Recommended Decision, 12 FCC Rcd at 421.

[1625] *See infra* section XI.D.2.c.

[1626] *See* U S West comments at 51-52.

[1627] *See* U S West comments at 51-52.

[1628] *See* U S West comments at 51-52.

[1629] *See* Alaska PSC comments at 5.

[1630] *See* Cylink comments at 1-3.

[1631] *See* Cylink comments at 1-3.

[1632] Advisory Committee Report at 7.

health care providers.[1633] Some of these commenters propose that large hospitals receive support for telecommunications services with a bandwidth capacity up to and including 1.544 Mbps while small clinics receive support only for services with less bandwidth capacity.[1634] Although they could reduce the costs of health care support,[1635] such proposals do not acknowledge that, if bandwidth capacity of 1.544 Mbps is needed for diagnostic quality, real-time, full-motion, interactive video conferencing to evaluate or treat patients,[1636] then this need is shared by both large hospitals and small rural clinics. For this reason, we do not foreclose the availability of support for such services to any eligible health care provider. We find, however, that the high urban prices of telecommunications services, as well as associated equipment and training, will deter rural health care providers from purchasing any service using greater bandwidth capacity than is necessary to provide health care services or health care instruction.

626. Scope of Services Eligible for Support. For the reasons set forth in the Recommended Decision, we agree with and adopt the recommendation of the Joint Board, unchallenged by any commenter, that terminating services should be supported when they are billed to the eligible health care provider, as in the case of wireless telephone air time charges, and should not be supported otherwise.[1637] We adopt the recommendation of the Joint Board,[1638] supported by several commenters[1639] and otherwise unopposed, that we not support health care providers' acquisition of customer premises equipment such as computers and modems.

627. Like the Joint Board, we conclude that only telecommunications services should be designated for support under 254(h)(1)(A).[1640] Section 254(e) states that only an

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[1633] *See* Alaska PSC comments at 5; American Telemedicine comments at 3; AT&T comments at 23; Nebraska Hospitals comments at 2; and ORHP/HHS NPRM comments at 8-9.

[1634] *See* AT&T comments at 23; ORHP/HHS NPRM comments at 8-9; *see also* Recommended Decision, 12 FCC Rcd at 415.

[1635] *See* AT&T comments at 23.

[1636] *See, e.g.,* Alaska PSC comments at 5; American Telemedicine comments at 2; HHS comments at 2-4; Nebraska Hospitals comments at 1; St. Alexius comments at 1.

[1637] *See* Recommended Decision, 12 FCC Rcd at 421.

[1638] *See* Recommended Decision, 12 FCC Rcd at 421.

[1639] *See, e.g.,* SBC comments at 10.

[1640] *See* Recommended Decision, 12 FCC Rcd at 421.

"eligible telecommunications carrier" under section 214(e) may receive universal service support.[1641] Unlike section 254(h)(1)(B), section 254(h)(1)(A) does not contain an exception to the eligibility requirements of section 254(e). Therefore, we conclude that only eligible telecommunications carriers, as defined in section 254(e), shall be eligible to receive support for providing eligible services to health care providers under section 254(h)(1)(A).

628. We conclude that both eligible telecommunications carriers and telecommunications carriers that do not qualify as eligible telecommunications carriers under section 254(e) may receive support for services provided to eligible health care providers under section 254(h)(2). We find that there is no need to extend eligiblity beyond telecommunications carriers because we are supporting only telecommunications services.[1642]

629. Internet Access. The Joint Board concluded that the record contained insufficient information about the costs of providing Internet access to health care providers to justify a recommendation that such access be supported.[1643] Consistent with the Joint Board recommendation, the Common Carrier Bureau sought comment on the need for supporting Internet access for rural health care providers.[1644] The Joint Board recommended that the Commission seek information on both the rate of expansion of local access coverage of Internet service providers in rural areas of the country and the costs likely to be incurred in providing toll-free Internet access to health care providers in rural areas.[1645]

630. As discussed in the schools and libraries section, sections 254(c)(3) and 254(h)(1)(B) of the Act authorize us to permit schools and libraries to receive the telecommunications and information services needed to use the Internet at discounted rates.[1646] In contrast, section 254(h)(1)(A) explicitly limits supported services for health care providers to telecommunications services.[1647] Accordingly, as some commenters suggest,[1648] data links

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[1641] *See* 47 U.S.C. § 254(e).

[1642] *See* KENNETH MCCLURE ET AL., STATE MEMBERS' REPORT ON THE UNIVERSAL SERVICE SUPPORT FOR RURAL HEALTH CARE PROVIDERS (April 10, 1997) (State Health Care Report) at 4. *Compare* State Health Care Report, Separate Statement of Commissioner Laska Schoenfelder at 7-8 (dissenting from majority position on eligibility).

[1643] Recommended Decision, 12 FCC Rcd at 428.

[1644] *See* Recommended Decision Public Notice at 2; Recommended Decision, 12 FCC Rcd at 427.

[1645] Recommended Decision, 12 FCC Rcd at 427.

[1646] *See supra* section X.B.1.2.b. (discussing the information services supported under §§ 254(c)(3) and 254(h)(1)(B)).

[1647] 47 U.S.C. §§ 254(c)(3), 254(h)(1)(A), and 254(h)(1)(B). *See supra* section X.B.2.b.

[1648] *See*, e.g., AT&T reply comments at 30; MTS comments at 30; PacTel comments at 5.

and associated services that meet the statutory definition of information services, because of their inclusion of protocol conversion and information storage, are not eligible for support under section 254(h)(1)(A), as they are under section 254(h)(2)(A). As several commenters maintain, however, the telecommunications component of access to an Internet service provider, provided by an eligible telecommunications carrier, is a telecommunications service eligible for universal service support for health care providers under section 254(h)(1)(A).[1649] That is, any telecommunications service within the prescribed bandwidth limitations used to obtain access to an Internet service provider is eligible for support under section 254(h)(1)(A). The record suggests that the most efficient and cost-effective way to provide many telemedicine services, including many of the health care services described in the Advisory Committee's list of necessary telemedicine services, is via the Internet.[1650] For example, via the Internet, health care providers may gain access to expert information and databases,[1651] communicate through e-mail and on-line support groups,[1652] and access services sponsored by the National Institute of Health and the National Library of Medicine.[1653]

631. The record developed in response to the Recommended Decision also indicates that rural health care providers often incur large telecommunications toll charges and that these charges are a major deterrent to full use of the Internet for health-related telecommunications services.[1654] Therefore, as discussed below, under section 254(h)(2)(A), we support limited toll charges incurred by health care providers that cannot obtain toll-free

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[1649] *See, e.g.*, AAMC comments at 1, 2; AHA comments at 1 (urging the Commission to adopt recommendations of Advisory Committee, including Internet access); American Telemedicine comments at 4; APHA comments at 1, 3-5 (stating that telecommunications access, including Internet applications, is important to public health); HHS comments at 2; Nebraska Hospitals comments at 1 (stating that access to the Internet is necessary to provide access to numerous sources of medical information and to distribute health-care-related information); Alaska Telemedicine Project reply comments at 7; NTIA reply comments at 29; Scott & White reply comments at 1; *see also* Letter from Senators Olympia J. Snowe, J. Robert Kerrey, and John D. Rockefeller IV, primary sponsors of the Snowe-Rockefeller-Exon-Kerrey provision of the 1996 Act, to Chmn. Reed E. Hundt, FCC, dated January 9, 1997, at 1 (Senate January 9 *ex parte*) at 2 (supporting local toll rates for Internet access); Letter from Senator Kent Conrad et al., Congress of the United States, to Chmn. Reed E. Hundt, FCC dated January 10, 1997 (Congressional January 10 *ex parte*) at 2 (asserting that the intent of § 254(h)(1)(A) is that "providers receive access to the Internet as quickly as possible, and that they not wait for the marketplace which may not respond to the communications needs of rural communities")..

[1650] *See* AAMC comments at 2; Advisory Committee Report at 6-7; Nebraska Hospitals comments at 1.

[1651] *See* HHS comments at 5.

[1652] *See* AAMC comments at 2.

[1653] *See* AAMC comments at 2.

[1654] *See* American Telemedicine comments at 4; Advisory Committee Report at 3.

access to an Internet service provider.[1655]

632. Infrastructure Development and Upgrade. The Joint Board observed that the issue of what services to support necessarily raises the issue of how to treat a request for a service that is not offered in the health care provider's local area or that could not be supported by the infrastructure or facilities currently in place.[1656] The Joint Board also found insufficient evidence on the record to justify a recommendation that the Commission authorize support for upgrades to the public switched or backbone networks when such upgrades can be shown to be necessary to deliver services to eligible health care providers.[1657] The Joint Board recommended that the Commission seek additional information on the probable costs, advantages, and disadvantages of supporting such upgrades.[1658] Despite requests for further information in the Recommended Decision and the Public Notice, few parties commented on this issue.[1659]

633. As a preliminary matter, we note that several commenters characterize infrastructure development as "network buildout."[1660] As other commenters note, however, providing additional support for network buildout or other infrastructure building technologies may not comport with the principle of competitive neutrality.[1661] We recognize that non-wireline technologies may provide the most cost-effective manner of providing services to areas currently underserved by, or receiving unsatisfactory service from the use of, wireline technologies.[1662] For this reason we will use the term "infrastructure development" instead of "network buildout" and will explore the use of non-wireline technologies as part of the program described below.

634. We agree with MCI that infrastructure development is not a

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[1655] *See infra* section XI.G.

[1656] *See* Recommended Decision, 12 FCC Rcd at 432.

[1657] Recommended Decision, 12 FCC Rcd at 432.

[1658] Recommended Decision, 12 FCC Rcd at 432.

[1659] *See, e.g.,* PacTel comments at 54; U S West comments at 49-50.

[1660] *See, e.g.,* BellSouth comments at 44; PacTel comments at 58.

[1661] Several commenters contended that infrastructure development would not be competitively neutral as required by the provisions of section 254(h)(2)(A). *See* Ameritech comments at 27*;* AT&T comments at 26; BellSouth comments at 45-46; NCTA comments at 23-24; PacTel comments at 58; Ameritech reply comments at 9; State Health Care Report at 3.

[1662] *See* NCTA comments at 24.

"telecommunications service" within the scope of section 254(h)(1)(A).[1663] We reject the position of AT&T,[1664] however, that support for non-telecommunications services is likewise barred under the companion provisions of section 254(h)(2). We conclude that we have the authority to establish rules to implement a program of universal service support for infrastructure development as a method to enhance access to advanced telecommunications and information services under section 254(h)(2)(A), as long as such a program is competitively neutral, technically feasible, and economically reasonable.[1665] Section 254(h)(2)(A) directs the Commission to establish competitively neutral rules "to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all . . . health care providers."[1666] Extending or upgrading existing telecommunications infrastructure enhances access to the advanced services that may be offered over that infrastructure.

635. The record contains anecdotal evidence regarding the need for support for infrastructure development.[1667] We conclude, however, that the existing record contains insufficient information to determine the level of need for such infrastructure development or to estimate reliably the costs to support such development. Moreover, the record contains few details regarding existing federal and state programs already supporting infrastructure development and the extent to which they are meeting existing needs.[1668] Accordingly, we will issue a Public Notice regarding whether and how to support infrastructure development needed to enhance public and not-for-profit health care providers' access to advanced

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[1663] *See* MCI comments at 19.

[1664] *See* AT&T comments at 25-26; *see also* State Health Care Report at 3 (stating that the statute does not specifically contemplate the subsidization of network construction).

[1665] 47 U.S.C. § 254(h)(2)(A).

[1666] 47 U.S.C. § 254(h)(2)(A).

[1667] *See, e.g.,* Letter from Robert M. Halperin, Counsel to Alaska, to William F. Caton, FCC, dated Mar. 7, 1997 (Alaska March 7 *ex parte),* attachment 1 at 2-3; Kansas Hospital Association comments at 2.

[1668] *See, e.g.,* Ameritech comments at 27-28; BellSouth comments at 45-46; State Health Care Report at 3. Federal programs of which we are aware include Office of Rural Health Policy's Rural Telemedicine Network Grant Program and Rural Health Outreach Grant Program; the Telecommunications and Information Infrastructure Program administered by NTIA; and the Internet Connections Grant Program and the High Performance Computing and Communications Program administered by the National Institutes of Health, Department of Health and Human Services. *See* State Health Care Report at 3 (describing federal programs that provide funding for telecommunications programs). We are also aware that recent federal legislation requires the Rural Utility Service to increase the capabilities of the telecommunications infrastructure installed pursuant to its program, which provides long-term loans to improve rural telecommunications infrastructure. *See* 7 U.S.C. § 935(d)(3)(B)(iv); 7 C.F.R. § 1751.106 *et seq.*

telecommunications and information services.

636. Periodic Review. We have considered carefully the issue of how soon to review and revise the description of supported services and adopt the Joint Board's recommendation to revisit the list of supported services in 2001. We note that there are several advantages to the Joint Board approach. The Joint Board's recommended review date is also the time we have set to re-convene a new Joint Board on universal service, which the statute contemplates will make recommendations to the Commission on modifications to the definition of supported services.[1669]

637. We note the concern of some commenters that technology, markets, and regulations are changing so rapidly, and in some cases so unpredictably, that we should set a review date earlier than the 2001 date recommended by the Joint Board.[1670] On the other hand, we wish to set a review date that allows sufficient time to evaluate the effect of newly adopted regulations. Therefore, we anticipate that, as the Joint Board recommends, we will revisit the list of supported services in 2001, unless changing circumstances require expedited review. Interested parties may submit requests for expedited review based on such changing circumstances.[1671] In particular, we would be interested in comments from the appropriate federal agencies working on telehealth applications, because we intend the support we provide to complement the work of other federal programs. Moreover, we will use the monitoring report of the Administrator described below, in conjunction with input from the Joint Working Group on Telemedicine, to evaluate any developing needs for review or redefinition of supported services earlier than recommended by the Joint Board.[1672] This report will be made public so that others may also use it to assess these developing needs.

C. Eligibility of Health Care Providers

1. Defining Eligibility for Health Care Providers

a. Background

638. Section 254(h)(1)(A) grants the right to receive federal universal service support to "any public or non-profit health care provider that serves persons who reside in

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[1669] *See* 47 U.S.C. § 254(c)(2).

[1670] *See* Recommended Decision, 12 FCC Rcd at 422; AHA comments at 5; HHS comments at 4.

[1671] *See* ITC comments at 9.

[1672] *See infra* section XI.F.2. (describing monitoring program to collect information for use in periodic review).

rural areas of that state."[1673] The provision does not specify, however, where a health care provider must be physically located in order to be eligible for universal service support.

639. The Joint Explanatory Statement indicates that section 254(h) is intended to ensure that "health care providers for rural areas have affordable access to modern telecommunications services that will enable them to provide medical and educational services to all parts of the nation."[1674] In another paragraph, the Joint Explanatory Statement expresses Congress's intent "that the rural health care provider receive an affordable rate for the services necessary for the purposes of telemedicine and instruction relating to such services."[1675] The Joint Explanatory Statement further states that

> [t]he provisions of subsection (h) will help open new worlds of knowledge, learning and education to all Americans - rich and poor, rural and urban. They are intended, for example, to provide the ability to find new information on the treatment of an illness.[1676]

640. The Joint Board recommended that eligibility for universal service support be limited to health care providers that are located in rural areas.[1677] The Joint Board concluded that administering an eligibility definition that includes providers located in urban areas would be "unworkable," given that the statute contemplates a support mechanism designed to reduce rural rates to a level "reasonably comparable" to urban rates.[1678]

b. Discussion

641. Pursuant to section 254(h)(1)(A), "any public or nonprofit health care provider that serves persons who reside in rural areas in that State" is eligible for universal service support. As the Joint Board acknowledged, because nearly all health care providers serve some rural residents, the statute could be read to include nearly every health care provider in the country.[1679] The intent of Congress to limit eligibility under section 254(h)(1)(A) to health

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[1673] 47 U.S.C. § 254(h)(1)(A).

[1674] Joint Explanatory Statement at 132.

[1675] Joint Explanatory Statement at 133.

[1676] Joint Explanatory Statement at 132.

[1677] Recommended Decision, 12 FCC Rcd at 441.

[1678] Recommended Decision, 12 FCC Rcd at 440.

[1679] Recommended Decision, 12 FCC Rcd at 440.

care providers located in rural areas is demonstrated by the statutory directive that calculation of the amount of support due a carrier for providing services to a health care provider is to be based on the difference between the "rates for services provided to health care providers for rural areas and the rates for similar services provided to other customers in comparable rural areas."[1680] It would not be logical to compare the rates paid by health care providers with those paid by other customers in comparable rural areas if the health care provider were not also located in a rural area.[1681] Thus, Congress contemplated that an eligible health care provider would otherwise be paying the rates of any other nonresidential customer located in a rural area. The Joint Board's recommendation that eligibility for universal service support be limited to health care providers that are located in rural areas[1682] and its conclusion that administering an eligibility definition that includes providers located in urban areas would be "unworkable"[1683] are consistent with this interpretation.

642. We agree with the Joint Board that we should adopt "a mechanism that includes the largest reasonably practicable number of health care providers that primarily serve rural residents and that, because of their location, are prevented from obtaining telecommunications services at rates available to urban customers."[1684] We also agree, therefore, that eligibility to obtain telecommunications services at urban rates should be limited to health care providers located in rural areas. Accordingly, we conclude that all public and nonprofit health care providers that are located in rural areas, as defined below, are eligible to receive supported services pursuant to the mechanisms established in this section.

643. Such an interpretation is consistent with the legislative history of the statute, which indicates that Congress intended section 254(h) "to ensure that health care providers for rural areas . . . have affordable access to modern telecommunications services that will enable them to provide medical . . . services to all parts of the Nation."[1685] The legislative history also indicates that Congress was particularly concerned that "*rural health care providers* [be able] to obtain access to advanced telecommunications services"[1686] and "that the *rural health care provider* receive an affordable rate for the services necessary for the purposes of

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[1680] Recommended Decision, 12 FCC Rcd at 440; 47 U.S.C. § 254(h)(1)(A).

[1681] Recommended Decision, 12 FCC Rcd at 440.

[1682] Recommended Decision, 12 FCC Rcd at 441.

[1683] Recommended Decision, 12 FCC Rcd at 440.

[1684] Recommended Decision, 12 FCC Rcd at 441.

[1685] Joint Explanatory Statement at 132.

[1686] Joint Explanatory Statement at 132 (emphasis added).

telemedicine and instruction relating to such services."[1687] Accordingly, we adopt mechanisms to ensure that public and nonprofit rural health care providers receive supported services.

644. We note commenters' concerns that health care providers located outside of rural areas are a major source of health care services and related instruction to rural areas.[1688] Nonetheless, we are bound by the language of the statute, which contemplates support for only those health care providers who would otherwise pay rural rates for supported services. For similar reasons, we agree with the Joint Board and decline to extend support to carriers that provide services to underserved urban areas.[1689] Such an extension of support would be directly contrary to the plain language of section 254(h)(1)(A).

645. As discussed below, we agree with the Joint Board that all public and non-profit health care providers should benefit from the provisions of section 254(h)(2).[1690] Therefore, as discussed below, we conclude that all public and non-profit health care providers that cannot obtain toll-free access to an Internet service provider will be eligible for support for limited toll-free access under section 254(h)(2)(A).[1691]

2. Defining Rural Areas

a. Background

646. Section 254(h)(1)(A) provides, in part, that a telecommunications carrier shall provide telecommunications services "to any public or non-profit health care provider that serves persons who reside in *rural areas* in that State . . . at rates that are reasonably comparable to rates charged in urban areas in that State."[1692] In addition, section 254(h)(1)(A) states that the carrier providing such services is "entitled to have an amount equal to the difference, if any, between the rates for services provided to health care providers for *rural areas* in a State and the rates for similar services provided to other customers in comparable *rural areas* in that State treated as a service obligation as part of its obligation to participate

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[1687] Joint Explanatory Statement at 133 (emphasis added).

[1688] *See, e.g.,* Colorado LEHTC comments at 3; Community Colleges comments at 20.

[1689] *See* HHS comments at 5.

[1690] *See* Recommended Decision, 12 FCC Rcd at 457.

[1691] *See supra* section XI.F (discussing eligibility under section 254(h)(2)(A)).

[1692] 47 U.S.C. § 254(h)(1)(A) (emphasis added).

in the mechanisms to preserve and advance universal service."[1693]

647. The Commission recognized that, in order to implement section 254(h)(1)(A), it would be necessary to define "rural areas" both to determine the residency of health care patients served by providers and to establish reasonably comparable rates for telecommunications services.[1694] After considering alternative methodologies that ORHP/HHS[1695] and the United States Department of Agriculture's Economic Research Service[1696] had developed, the Advisory Committee recommended that we use the ORHP/HHS method to identify rural areas.[1697] Consistent with the ORHP/HHS approach, the Advisory Committee recommended that the Commission use the OMB's Metropolitan Statistical Area (MSA) designation of metropolitan and nonmetropolitan counties[1698] (or county equivalents)[1699] along with the "Goldsmith Modification"[1700] to metropolitan counties.[1701] The Advisory

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[1693] 47 U.S.C. § 254(h)(1)(A) (emphasis added).

[1694] NPRM at para. 95

[1695] NPRM at para. 96.

[1696] NPRM at para. 97.

[1697] *See* Advisory Committee Report at 3-4. Commentators have noted that there are no operational definitions of "rural areas" that precisely divide the population of the United States into "rural residents" and "urban residents." The two most commonly used definitional constructs are *rural areas and urban areas,* a Bureau of Census designation based on density, and *metropolitan areas and nonmetropolitan areas,* an OMB designation based on the integration of counties with big cities. *See* Letter from Dr. Patricia Taylor, ORHP/HHS to William F. Caton, FCC, dated October 24, 1996 (ORHP/HHS Oct. 24 *ex parte*) attachment at 2 (including attachment, HAROLD F. GOLDSMITH ET AL., IMPROVING THE OPERATIONAL DEFINITION OF "RURAL AREAS" FOR FEDERAL PROGRAMS, Office of Rural Health Policy, 1993 (*"*IMPROVING THE DEFINITION OF RURAL AREAS*")*.

[1698] The designation of counties as metropolitan or non-metropolitan in character is made officially by OMB, with technical support from the Bureau of the Census, and is based on the size of the largest urban aggregation in a county and patterns of commuting between counties. Generally, counties socially and economically integrated with an urban cluster of at least 50,000 or more persons have been designated as metropolitan counties and the remainder as nonmetropolitan counties. *See* IMPROVING THE DEFINITION OF RURAL AREAS at 7 n.1, footnote 7, *supra., citing* FEDERAL COMMITTEE ON STANDARD METROPOLITAN STATISTICAL AREAS, 1980, *Statistical Reporter* 80(II):335-384.

[1699] The MSA list includes counties, minor civil divisions (MCDs) (e.g., cities, towns, or townships), places independent of MCDs (treated as pseudo-MCDs by Census Bureau for statistical purposes) in New England, and areas treated by the Bureau of the Census as the equivalents of counties for statistical purposes. References herein to "metropolitan counties" or "nonmetropolitan counties" include these areas.

[1700] The Goldsmith Modification identifies small town and open-country parts of large metropolitan counties by census tract or block-numbered area, as defined by the Bureau of the Census. *See* IMPROVING THE DEFINITION OF RURAL AREAS.

Committee recognized that large, nominally metropolitan counties can contain significant rural areas that are isolated and lack easy physical access to the central areas of metropolitan counties for health care services.[1702] For that reason, the Advisory Committee suggested using the Goldsmith Modification to identify such areas for inclusion in the category of nonmetropolitan counties.[1703]

648. The Joint Board recommended that we use the same definition of rural areas both to determine whether a health care provider is located in "rural areas of a state" and to designate the "comparable rural areas" needed to calculate the credit or reimbursement due a carrier providing supported services.[1704] In each case, the Joint Board recommended defining "rural areas" as those nonmetropolitan counties identified by the MSA list, together with the additional rural areas identified in the most recent Goldsmith Modification, as ORHP/HHS and the Advisory Committee recommended.[1705] The Joint Board recommended that the Commission improve that definition if possible.[1706] In addition, the Joint Board declined to recommend that the Commission designate and direct more support to frontier areas.[1707]

b. Discussion

649. As the Joint Board recognized, section 254(h)(1)(A) requires us to adopt a definition of "rural area" both to determine the location of health care providers and to determine the "comparable rural areas" needed for use in calculating the credit or reimbursement to a carrier that provides services to those health care providers at reduced rates. For both purposes, we adopt the recommendation of the Joint Board and define "rural area" to mean a nonmetropolitan county or county equivalent, as defined by OMB and identifiable from the most recent MSA list released by OMB, or any census tract or block numbered area, or contiguous group of such tracts or areas, within an MSA-listed

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[1701] Advisory Committee Report at 3-4.

[1702] Advisory Committee Report at 3-4.

[1703] Advisory Committee Report at 3-4 (stating that ORHP/HHS has used this operational definition of rural areas for more than five years in its Rural Health Outreach Grant Program); *see also* ORHP/HHS NPRM comments at 5 (describing metropolitan and nonmetropolitan areas and the Goldsmith Modification). The Goldsmith Modification strategy for identifying the rural areas of large metropolitan counties is described in IMPROVING THE DEFINITION OF RURAL AREAS.

[1704] *See* Recommended Decision, 12 FCC Rcd at 437.

[1705] Recommended Decision, 12 FCC Rcd at 437.

[1706] Recommended Decision, 12 FCC Rcd at 437.

[1707] *See* Recommended Decision, 12 FCC Rcd at 438.

metropolitan county identified in the most recent Goldsmith Modification published by ORHP/HHS. We agree that counties are units of identification more easily used and administered than the Bureau of the Census's density-based definition of rural and urban areas.[1708] Although some commenters view this definition as too expansive,[1709] we find that it is consistent with the Joint Board's recommendation and congressional intent to adopt "a mechanism that includes the largest reasonably practicable number of rural health care providers that, because of their location, are prevented from obtaining telecommunications services at rates available to urban customers."[1710] As discussed above, because lists of MSA counties and Goldsmith-identified census tracts and blocks already exist, updated to 1996, such an approach is easily administered.[1711] We direct the Administrator to post on a website the most recent versions of the MSA list, the Goldsmith Modification list, and appropriate instructions for identifying the MSA census tract or block numbered area in which a rural health care provider's site is located. In addition, we direct the Administrator to make that information available in hard copy to interested parties upon request.

650. We agree with the Joint Board and decline to adopt a definition of "rural area" consistent with the service territory or study area of a rural telephone company, as defined in the Act.[1712] Indeed, neither the definition of the term "rural telephone company" nor the service boundaries of such companies are well known and using them for eligibility and rate calculation purposes would be more burdensome on rural health care providers and the Administrator than using counties and cities. Moreover, we find no evidence in the record

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[1708] *See* IMPROVING THE DEFINITION OF RURAL AREAS at 2.

[1709] *See* RUPRI Rural Telecommunications Task Force at 12.

[1710] Recommended Decision, 12 FCC Rcd at 441. *See also* Joint Explanatory Statement at 132 (stating that section 254(h) is intended "to ensure that health care providers for rural areas . . . have affordable access to modern telecommunications services that will enable them to provide medical . . . services to all parts of the Nation); Joint Explanatory Statement at 133 (expressing concern "that the rural health care provider receive an affordable rate for the services necessary for the purposes of telemedicine and instruction relating to such services").

[1711] OMB annually revises and augments the list of Metropolitan Statistical Areas. Counties or county equivalents not listed are considered nonmetropolitan. ORHP/HHS periodically revises and publishes a list of rural census tracts or block numbered areas located within larger metropolitan counties identified through application of the Goldsmith Modification criteria. Thus a health care provider, located in a county not listed on the MSA list or located in a county within a census tract or block numbered area that is listed in the Goldsmith Modification is located in a "rural area." Any health care provider in the United States or Puerto Rico can identify the census tract or block numbered area within which that provider's site of operation is located by contacting any one of eleven offices of the Bureau of the Census's Regional Information Service around the country. A list of these offices, their phone numbers, and states that they cover is attached as an exhibit to the Goldsmith Modification list.

[1712] *See* Recommended Decision, 12 FCC Rcd at 438; LCI comments at 11-13 (*citing* 47 U.S.C. §153(37)).

that the service territories of rural telephone companies are expansive enough to cover all the rural areas in the country that are entitled to supported services. Further, such boundaries are constantly changing as rural telephone companies are acquired by other companies, acquire other companies' territories, or apply for study area waivers or modifications. For these reasons, we find the service territory boundaries of rural telephone companies unsuitable for use in designating "rural areas" for the purposes of section 254.

651. We recognize that our decision to define rural area by using the OMB/MSA listing would appear to exclude certain insular areas that do not have counties and are not included in the OMB list or the Goldsmith Modification.[1713] Accordingly, we make special provisions for insular areas, as described below.[1714]

652. Consistent with the Joint Board's recommendation, we decline to make special provisions in this section for "frontier areas," areas with very low population density, as some commenters suggest.[1715] The rate-setting mechanisms that we adopt here apply to all rural areas, including frontier areas. Recognizing, however, the special problems that some health care providers in frontier areas face because of inadequate telecommunications infrastructure, we have addressed the issue of infrastructure buildout above.[1716]

3. Definition of Health Care Provider

a. Background

653. Section 254(h)(1)(A) states that "[a] telecommunications carrier shall, upon receiving a bona fide request, provide telecommunications services which are necessary for the provision of health care services in a State . . . , to *any public or nonprofit health care provider* that serves persons who reside in rural areas in that State."[1717] Section 254(h)(4) clarifies that "[n]o entity listed in this subsection shall be entitled to preferential rates or treatment as required by this subsection, if such entity operates as a for-profit business."[1718] The "Definitions" provision of section 254 states that:

[1713] *See, e.g.,* CNMI comments at 22-24; Governor of Guam comments at 12-13.

[1714] *See supra* section XI.D.

[1715] *See* AHA comments at 5; High Plains RHN comments at 2; ORHP/HHS NPRM comments at 5-6.

[1716] *See supra* section XI.B.

[1717] 47 U.S.C. § 254(h)(1)(A) (emphasis added).

[1718] 47 U.S.C. § 254(h)(4).

For purposes of this subsection: . . . [t]he term 'health care provider' means --

(i) post-secondary educational institutions offering health care instruction, teaching hospitals, and medical schools;
(ii) community health centers or health centers providing health care to migrants;
(iii) local health departments or agencies;
(iv) community mental health centers;
(v) not-for-profit hospitals;
(vi) rural health clinics; and
(vii) consortia of health care providers consisting of one or more entities described in clause (i) through (vi).[1719]

654. In response to commenters who raised the issue of the definition of the term "health care provider," the Joint Board recommended that the Commission attempt no further clarification of the term.[1720] It found that section 254(h)(5)(B) adequately describes those entities Congress intended to be eligible for universal service support.[1721]

b. Discussion

655. We adopt the Joint Board's recommendation that the Commission attempt no further clarification of the term "health care provider," because section 254(h)(5)(B) adequately describes those entities Congress intended to be eligible for universal service support.[1722] Commenters present no convincing justification for expanding the categories of eligible providers beyond those delineated by Congress, which are unambiguously described in section 254(h)(5)(B).

656. Accordingly, we do not include rural home care providers within the definition of health care providers.[1723] Although such providers often deliver critical services and constitute an important segment of the health care community, Congress did not include them among rural health care providers eligible for universal service support. Given the specific categories of health care providers defined in section 254(h)(5)(B), we find that if Congress

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[1719] 47 U.S.C. § 254(h)(5)(B).

[1720] Recommended Decision, 12 FCC Rcd at 444.

[1721] Recommended Decision, 12 FCC Rcd at 444.

[1722] Recommended Decision, 12 FCC Rcd at 444.

[1723] *See, e.g.,* Kansas Hospital Association comments at 3-4 (stating that the Commission should include rural home care providers as eligible for universal service support).

had intended to include rural home care providers in the list, it would have done so explicitly.[1724] Likewise, we decline to include "not-for-profit entities devoted to continuing medical education" within the definition of health care providers, to the extent that they are not already among those entities listed in section 254(h)(5)(B).[1725]

D. Implementing Support Mechanisms for Rural Health Care Providers

1. Identifying the Applicable Rural Rate

a. Background

657. The method of determining the amount that a telecommunications carrier providing services to an eligible health care provider is entitled to treat as its universal service obligation is described in section 254(h)(1)(A) as follows:

> (A) HEALTH CARE PROVIDERS FOR RURAL AREAS. A telecommunications carrier providing service under this paragraph shall be entitled to have an amount equal to the difference, if any, between the rates for services provided to health care providers for rural areas in a State and the rates for *similar services provided to other customers in comparable rural areas in that State* treated as a service obligation as a part of its obligation to participate in the mechanisms to preserve and advance universal service.[1726]

658. The Joint Board recommended a method for determining the "rates for similar services provided to other customers in comparable rural areas" necessary to calculate the amount of support -- the "rural rate." The Joint Board stated that the rural rate should "be determined to be the average of the rates paid by commercial customers, other than health care providers, for identical or technically similar services provided by the carrier providing the service to commercial customers in the rural county in which the health care provider is

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[1724] *Chevron, U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837, 842-43 (1984) (stating that the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress).

[1725] *See* RUPRI Rural Telecommunications Task Force comments at 13 (stating that such entities should be eligible for support). Section 254(h)(5)(B)(i) includes post-secondary educational institutions offering health care instruction, teaching hospitals, and medical schools among the list of health care providers eligible for universal service support under section 254(h)(1)(A).

[1726] 47 U.S.C. § 254(h)(1)(A) (emphasis added).

located."[1727] The Joint Board further recommended that the term "rural county" be defined as any nonmetropolitan county identified in the OMB/MSA list, and any rural area within a metropolitan county described and identified in the "Goldsmith Modification" of the OMB/MSA list.[1728]

659. Where the carrier provides no identical or technically similar services in that rural county, the Joint Board recommended that the rural rate be the average of the tariffed or publicly available rates other carriers charge for the same or similar services in that rural county.[1729] Where no such services are offered by any other carriers, or where the carrier deems the method, as applied to that carrier, to be unfair for any reason, the Joint Board recommended that the carrier should be permitted to submit for its state commission's approval, a cost-based rate for the provision of the service in the most economically efficient, reasonably available manner.[1730] The Joint Board further recommended that if state commission review is not available, the carrier should be allowed to submit its proposed rate to the Commission for approval.[1731] The Joint Board recommended that the proposed rate be supported, justified, reviewed, and approved, in the initial submission and periodically thereafter, according to procedures and requirements similar to those used for establishing tariffed rates for telecommunications services in their state.[1732]

b. Discussion

660. We adopt the recommendation of the Joint Board and conclude that the rural rate shall be the average of the rates actually being charged to commercial customers, other than rates reduced by universal service programs, for identical or technically similar services provided by the carrier providing the service in the rural area in which the health care provider is located.[1733] In making this decision, we agree with the Joint Board's conclusion that the approach is "[m]indful of the Commission's obligation to craft a mechanism that is

[1727] Recommended Decision, 12 FCC Rcd at 431.

[1728] *See supra* section XI.C.2.

[1729] *See* Recommended Decision, 12 FCC Rcd at 431.

[1730] *See* Recommended Decision, 12 FCC Rcd at 431.

[1731] *See* Recommended Decision, 12 FCC Rcd at 431.

[1732] *See* Recommended Decision, 12 FCC Rcd at 431.

[1733] *See* Recommended Decision, 12 FCC Rcd at 431.

`specific, predictable and sufficient.'"[1734] As the Joint Board recommended, we define "rural area" to mean a nonmetropolitan county or county equivalent, as defined by OMB and identifiable from the most recent MSA list as released by OMB, or any census tract or block numbered area, or contiguous group of such tracts or areas, within an MSA-listed metropolitan county as identified in the most recent Goldsmith Modification published by ORHP/HHS.[1735] We conclude that including the discounted rates charged rural schools and libraries for similar services among the rates averaged would deny the telecommunications carrier full compensation for its services to a rural health care provider. For this reason, like the Joint Board, we conclude that the rates averaged to calculate the rural rate should exclude any rates reduced by universal service programs.[1736] Excluding such rates should help ensure that the rural rate more accurately reflects the costs of providing similar services to other customers in rural areas, so that the carrier providing services receives "sufficient" support, as contemplated by the Act.[1737]

661. Because we find it to be a reasonable procedure that minimizes administrative burdens on health care providers and carriers, we also adopt the Joint Board's recommendation on how to determine the rural rate when the providing carrier is providing no identical or technically similar services to other commercial customers in the relevant rural area. The rural rate must be determined by taking the average of the tariffed and other publicly available rates, not including any rates reduced by universal service programs, charged for the same or similar services in that rural area by other carriers. As the Joint Board recommended, if there are no such tariffed or publicly available rates for such services in that rural area, or if the carrier considers the method described here, as applied to the carrier, to be unfair for any reason, the carrier may submit, for the state commission's approval, regarding intrastate rates, or the Commission's approval, regarding interstate rates, a cost-based rate for the provision of the service in the most economically efficient, reasonably available manner. We also agree with the Joint Board recommendation that the rate determined under this procedure should be supported and justified periodically, taking into account anticipated and actual demand for telecommunications services by all customers who will make use of the facilities over which services are being provided to eligible health care providers.[1738] We encourage state commissions to review these proposed rates according to procedures and requirements similar to those used for establishing tariffed rates for

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[1734] Recommended Decision, 12 FCC Rcd at 431.

[1735] *See supra* section XI.C.2.

[1736] *See* Recommended Decision, 12 FCC Rcd at 431.

[1737] *See* 47 U.S.C. § 254(b)(5).

[1738] *See* Recommended Decision, 12 FCC Rcd at 431.

telecommunications services in their states, as the Joint Board contemplated.[1739]

662. We agree with the Joint Board that by defining "comparable rural areas" as the rural area in which the health care provider is located, the rates charged to non-health care customers for similar services in that area are a reasonable measure of "the rates charged for similar services provided to other customers in comparable rural areas in the state."[1740] If there are no similar services being provided in the rural area, either by the carrier or by others, and thus no rates to average, or if the carrier concludes that rates derived from this formula are unfair, we agree with the Joint Board's reasoning that the availability of a cost-based rate application procedure, such as we have adopted, becomes an important backstop. By providing the carrier an opportunity to obtain review of any aspect of the rate or credit calculation that it considers unfair, such a procedure should ensure that the rate is fair to the carrier and accordingly that the support mechanisms are "sufficient," consistent with section 254(b).[1741]

663. We disagree with Illinois CC's contention that the Commission should limit its role in the establishment of intrastate programs for universal service support and, in particular, its role in the establishment of support mechanisms for rural health care providers, thus leaving this task entirely to the states to perform.[1742] In sections 254(c)(3) and 254(h)(1)(A), Congress clearly expressed its intent that the Commission establish universal service support mechanisms for telecommunications services necessary for the provision of health care in each state.[1743] Requiring each of more than 50 states and territories to devise its own mechanisms for the support of telecommunications services to health care providers without a federal plan to set minimum support levels across the country would not provide "sufficient" support mechanisms across the country, as contemplated by section 254(b)(5). In addition, we note that under section 254(f), states are entitled to establish and fund their own universal service support mechanisms, not inconsistent with the Commission's rules, which do not interfere with or burden federal universal service support mechanisms, to preserve and advance universal service.[1744]

2. Identifying the Applicable Urban Rate

[1739] *See* Recommended Decision, 12 FCC Rcd at 431.

[1740] *See* 47 U.S.C. § 254(h)(1)(A); Recommended Decision, 12 FCC Rcd at 431.

[1741] *See* 47 U.S.C. § 254(b)(5).

[1742] Illinois CC comments at 3.

[1743] *See* 47 U.S.C. §§ 254(c)(3) and (h)(1)(A).

[1744] *See* 47 U.S.C. § 254(f).

a. Background

664. Section 254(h)(1)(A) describes the rate that telecommunications carriers may charge eligible rural health care providers as follows:

> (A) HEALTH CARE PROVIDERS FOR RURAL AREAS. - A telecommunications carrier shall . . . provide telecommunications services . . . to any public or non-profit health care provider . . . at rates that are reasonably comparable to rates charged for similar services in urban areas in that State.[1745]

665. The Joint Explanatory Statement states that subsection 254(h) was "intended to ensure that health care providers for rural areas . . . have affordable access to modern telecommunications services that will enable them to provide medical and educational services to all parts of the nation."[1746] The Joint Explanatory Statement particularly emphasizes affordability of telemedicine as a goal of this subsection, stating: "[i]t is intended that the rural health care provider receive an affordable rate for the services necessary for the purposes of telemedicine and instruction relating to such services."[1747]

666. The Joint Board recommended an approach for purposes of designating "urban areas" in order to calculate the rate "reasonably comparable to rates charged . . . in urban areas."[1748] The Joint Board concluded that the Commission should "designate a different, somewhat more refined boundary" than the county boundaries used to designate rural areas, recommending that the Commission use the jurisdictional boundaries of the nearest "large city."[1749] The Joint Board further recommended that the Commission "designate by regulation the exact city population size to define the term `large city.'"[1750]

667. The Joint Board further recommended that "the Commission designate as the rate `reasonably comparable to rates charged for similar services in urban areas in that State' (the `urban rate'), the highest tariffed or publicly available rate actually being charged to

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[1745] 47 U.S.C. § 254(h)(1)(A).

[1746] Joint Explanatory Statement at 132.

[1747] Joint Explanatory Statement at 131.

[1748] *See* 47 U.S.C. § 254(h)(1)(A).

[1749] *See* Recommended Decision, 12 FCC Rcd at 438.

[1750] Recommended Decision, 12 FCC Rcd at 438.

commercial customers within the jurisdictional boundary of the nearest large city in the state (measured by airline miles from the health care provider's location to the closest city boundary point)."[1751] The Joint Board concluded that in this context, "`comparable' is most reasonably defined to mean `no higher than the highest' rate charged in the nearest large city (excluding distance-based charges)."[1752] The Joint Board also rejected using averaged rates, including an average of statewide urban rates, an average statewide rate, or an average nationwide rate.[1753]

668. The Joint Board declined to recommend support for distance-based charges or charges for transmissions crossing LATA boundaries, because it concluded that the record lacked sufficient evidence about the costs of reducing or eliminating such charges to justify such a recommendation.[1754] Instead, the Joint Board recommended that the Commission seek additional information about the probable costs of supporting distance-based and LATA-crossing charges for rural health care providers.[1755]

b. Discussion

669. Definition. We adopt the recommendation of the Joint Board with modifications and designate as the rate "reasonably comparable to rates charged for similar services in urban areas in that State" (the "urban rate"), a rate no higher than the highest tariffed or publicly available rate actually being charged to a commercial customer within the jurisdictional boundary of the nearest large city in the state, calculated as described below. Accordingly, we adopt the Joint Board's recommended definition of "urban areas" to be used to calculate the rate "reasonably comparable to rates charged . . . in urban areas."[1756] So that the urban rate would "reflect to the greatest extent possible reductions in rates based on large-volume, high-density factors that affect telecommunications rates,"[1757] the Joint Board recommended that the Commission use the jurisdictional boundaries of the nearest "large city"

[1751] Recommended Decision, 12 FCC Rcd at 426.

[1752] Recommended Decision, 12 FCC Rcd at 428.

[1753] Recommended Decision, 12 FCC Rcd at 428.

[1754] Recommended Decision, 12 FCC Rcd at 428.

[1755] Recommended Decision, 12 FCC Rcd at 428.

[1756] *See* 47 U.S.C. § 254(h)(1)(A); *supra* section XI.D.2.a.

[1757] *See* Recommended Decision, 12 FCC Rcd at 438.

to define the relevant "urban area."[1758] Consistent with the Joint Board's recommendation that the Commission "designate by regulation the exact city population size to define the term `large city,'"[1759] and for the reasons described in the next paragraph, we define the phrase "nearest large city" to mean the city in the state with a population of at least 50,000, nearest to the rural health care provider's site, measured point-to-point, from the health care provider's location to the closest point on that city's jurisdictional boundary. We agree with the Joint Board's conclusion that in this context, "`comparable' is most reasonably defined to mean `no higher than the highest' rate charged in the nearest large city (excluding distance-based charges)."[1760] Subject to the limitations described below, a telecommunications carrier may not charge a rural health care provider a rate higher than the urban rate, as defined herein, for a requested service.

670. Like the Joint Board, we conclude that telecommunications rates in the nearest large city are a reasonable proxy for the "rates . . . in urban areas in a State."[1761] We believe that cities with populations of at least 50,000 are large enough that telecommunications rates based on costs would likely reflect the economies of scale and scope that can reduce such rates in densely populated urban areas. We also choose the 50,000 city size because an MSA, as defined by OMB, is based in part on counties with cities having a population of 50,000 or more, and every state has at least one MSA with a city that size.[1762] If we chose a city size larger than 50,000, we would be unable to apply this standard to states with no cities of that size. In addition, because the telecommunications services a rural health care provider uses in connection with its provision of the health care services covered by section 254(h) are likely to involve transmission facilities linking that health care provider's premises to a point in that nearest large city, using that location should provide more accurate and more realistic comparable rates for specific services than using rates, or average rates, from more distant urban areas.[1763] We agree with the Joint Board that using the highest tariffed or publicly available rate actually being charged to customers in the nearest city of 50,000 in the state avoids any unfairness that would arise from using average rates.[1764] The Joint Board stated

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[1758] *See* Recommended Decision, 12 FCC Rcd at 438.

[1759] Recommended Decision, 12 FCC Rcd at 438.

[1760] Recommended Decision, 12 FCC Rcd at 428.

[1761] *See* Recommended Decision, 12 FCC Rcd at 438; 47 U.S.C. § 254(h)(1)(A).

[1762] *See* IMPROVING THE DEFINITION OF RURAL AREAS at Appendix (MSA list). We use the term "state" as it is commonly understood, to refer to one of the fifty states, rather than as it is defined in the Act. *See* 47 U.S.C. § 153(40). Some territories and possessions do not have cities larger than 50,000. *See infra* section XI.D.4.b.

[1763] Recommended Decision, 12 FCC Rcd at 427; *see also infra* section XI.C.2. (concerning the calculation of the offset or reimbursement owed the carrier).

[1764] Recommended Decision, 12 FCC Rcd at 428.

that use of an average rate "would entitle some rural customers to rates below those paid by some urban customers, creating fairness problems for those urban customers and arguably going farther with this mechanism than Congress intended."[1765] The use of average rates could result in pricing telecommunications services to rural health care providers at rates lower than those paid by many nearby urban customers.

671. In the NPRM, the Commission stated that it sought a methodology for establishing "reasonably comparable" rates that was based on publicly available data, neither under-inclusive nor over-inclusive, and easily administered.[1766] We conclude that this method of defining the urban rate is easy to understand and use and thus advances the Commission's goal of fashioning universal service support mechanisms that minimize administrative burdens on regulators and carriers.[1767] We believe that it should be relatively easy to compare a city's jurisdictional boundaries with a carrier's rate or exchange maps[1768] and thus ascertain precisely the applicable rate. Moreover, like the Joint Board, we conclude that using the jurisdictional boundaries of cities makes this plan specific and predictable.[1769]

672. We reject MCI's suggestion that we require telecommunications carriers "to charge rural health care providers no more than the TELRIC rate of the same or comparable service in the nearest urban area."[1770] We are constrained by the language of section 254(h)(1)(A) to adopt mechanisms designed to make telecommunications services available to rural health care providers at rates reasonably comparable to "*rates charged* for similar services in urban areas."[1771] To the extent that any rates in the urban areas may reflect

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[1765] The Joint Board rejected using averaged rates, including an average of statewide rates, an average statewide rate, or an average of nationwide rates. *See* Recommended Decision, 12 FCC Rcd at 428.

[1766] NPRM at paras. 95, 98.

[1767] *See* NPRM at para. 100.

[1768] Most carriers have maps of exchange service areas or areas within which rates are charged. Often, such maps are filed with their rate tariffs.

[1769] *See* Recommended Decision, 12 FCC Rcd at 427; 47 U.S.C. § 254(b)(5).

[1770] *See* MCI comments at 19. "TELRIC" or "Total Element Long Run Incremental Cost" is a cost methodology for determining the forward-looking long run economic costs of telecommunications facilities or unbundled network elements. "TELRIC rates" are rates for unbundled network elements and interconnection based on TELRIC cost assumptions. TELRIC is a version of TSLRIC or Total Service Long Run Incremental Cost, another cost methodology for determining the forward-looking long run economic costs of telecommunications services. Both methodologies are discussed in the *Local Competition Order*, 11 FCC Rcd at 15845.

[1771] 47 U.S.C. § 254(h)(1)(A) (emphasis added).

TELRIC-based pricing, then the discounted rate will also reflect TELRIC-based pricing. The health care provisions of the statute do not contemplate TELRIC-based pricing in other instances.

673. Rates and Distance-based Charges. In considering how to set rates for telecommunications services "that are reasonably comparable to rates charged for similar services in urban areas in that State,"[1772] the Joint Board considered whether distance-based charges could be eligible for support pursuant to section 254(h)(1)(A).[1773] The Joint Board concluded that, when such charges exceed those charges incurred by commercial customers in the nearest urban area, section 254 "strongly suggests" that they should be made comparable.[1774] As the Joint Board emphasized, "the whole thrust of section 254(h)(1)(A) is that such disparities in telecommunications rates based on distance should be reduced or eliminated by universal service support."[1775] Concluding that the record lacked sufficient evidence regarding the costs of excluding such charges, however, the Joint Board declined to recommend that the Commission eliminate or reduce distance-based charges.[1776] Instead, the Joint Board recommended, in order to determine whether such services should be eligible for universal service support, that the Commission seek additional information about the probable cost of supporting distance-based charges for rural health care providers, when such charges exceed those paid by customers in the nearest urban area of the state.[1777]

674. Based on the record filed in response to the Joint Board's recommendation, we agree with the Advisory Committee that support for some distance-based charges is necessary to ensure that rates charged to rural health care providers are "reasonably comparable" to urban rates.[1778] We define distance-based charges as charges based on a unit of distance, such

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[1772] 47 U.S.C. § 254(h)(1)(A).

[1773] *See* Recommended Decision, 12 FCC Rcd at 428; Advisory Committee Report at 2 (recommending that "the comparable urban rate should eliminate differences [between] urban and rural rates created by distance").

[1774] *See* Recommended Decision, 12 FCC Rcd at 428.

[1775] Recommended Decision, 12 FCC Rcd at 428.

[1776] Recommended Decision, 12 FCC Rcd at 428.

[1777] Recommended Decision, 12 FCC Rcd at 428. We note that the state members of the Joint Board did not address this issue in their subsequent report on health care issues. *See* State Health Care Report.

[1778] Advisory Committee Report at 2; Many commenters support eliminating distance-based charges. *See, e.g.,* AHA comments at 5; American Telemedicine comments at 5; HHS comments at 2, 4; Illinois DPH comments at 2; Kansas DHE comments at 1; Kansas Hospital Association comments at 2; Nebraska Hospitals comments at 3; St. Alexius comments at 1; University of Nevada School of Medicine comments at 1; Scott & White reply comments at 1; University of Kentucky Center for Rural Health reply comments at 1; Letter from

as mileage-based charges. We note that the term "rate" is not defined in section 254(h)(1)(A) or elsewhere in the 1996 Act. Although several incumbent LECs and USTA contend that the term "rate" refers to the cost of each element or sub-element of a telecommunications service,[1779] we conclude that, as used in section 254(h)(1)(A), the term "rate" refers to the entire cost or charge of a service, end-to-end, to the customer.

675. Such an interpretation is consistent with the language and purpose of section 254(h)(1)(A). As discussed above, section 254(h)(1)(A) refers to "rates for *services* provided to health care providers" and "rates for similar *services* provided to other customers,"[1780] not rates for particular facilities or elements of a service. As the record indicates, many, if not most, base rates for telecommunications services are averaged across a state or study area.[1781] It is often distance-based charges, not differences between base rates for service elements, that create great disparities in the overall cost of telecommunications services between urban and rural areas.[1782] Indeed, distance-based charges are often a serious impediment to rural health care providers' use of telemedicine.[1783] If, as several LECs contend, a rural rate is "reasonably comparable" to an urban rate provided that per-mile charges are the same for rural and urban areas,[1784] section 254(h)(1)(A) could do little to reduce the disparity between rural and urban rates. Given that Congress emphasized the importance of making telecommunications services affordable for rural health care providers,[1785] it seems unlikely that Congress intended to adopt such a restrictive definition of "rate."[1786] Accordingly, we will support distance-

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Sec. Daniel L. Glickman, Dept of Agriculture, Sec. William M. Daley, Dept. of Commerce, and Sec. Donna Shalala, HHS to Chmn. Reed E. Hundt, FCC, dated April 29, 1997 (Joint Agency April 28 *ex parte*) at 2 (stating that "distance-sensitive elements [of rural telecommunications rates] should be eliminated in order to meet the `reasonably comparable' standard set forth in Section 254(h)(1)").

[1779] *See, e.g.,* Ameritech comments at 25-27; PacTel comments at 3-56; AirTouch reply comments at 33; Ameritech reply comments at 8; GCI reply comments at 14; PacTel reply comments at 30; SBC reply comments at 24-27.

[1780] 47 U.S.C. § 254(h)(1)(A) (emphasis added).

[1781] *See e.g.,* MCI comments at 18; PacTel comments at 14; USTA comments at 40.

[1782] *See e.g.,* American Telemedicine comments at 5.

[1783] *See* American Telemedicine comments at 5; Nebraska Hospitals comments at 2; NTIA comments at 2.

[1784] *See, e.g.,* Ameritech comments at 25-27; PacTel comments at 3-56; AirTouch reply comments at 33; Ameritech reply comments at 8; GCI reply comments at 14; PacTel reply comments at 30; SBC reply comments at 24-27.

[1785] Joint Explanatory Statement at 131-32.

[1786] We note that the Senate sponsors of the Snowe-Rockefeller-Exon-Kerrey Amendment to the 1996 Act assert that the Act prohibits "the use of distance in determining transmission rates." *See* Senate Jan. 9 *ex parte.*

based charges incurred by rural health care providers, consistent with the limitations described herein.

676. Support Mechanisms. Although many commenters support eliminating distance-based charges for rural health care providers,[1787] few suggest how to do so. Nebraska Hospitals advocates providing each eligible rural health care provider with a T-1 circuit linking that provider to its primary source for medical consultation at a price equal to the charge for a similar telecommunications service paid by the urban health care provider located the farthest distance from the latter's serving central office.[1788] We conclude, however, that such a plan would not be competitively neutral, because it links support to the use of a wireline service of a specified bandwidth. Likewise, it would be difficult to administer, given the difficulty of ascertaining the relevant urban health care provider.

677. While contending that the Commission lacks the authority to subsidize distance charges, several ILECs suggest a "reasonable means" by which the Commission could do so.[1789] The ILECs contend that "the maximum distance for which a rural health care provider should be subsidized would be the distance from the rural provider's facility to the nearest urban area," which they define as the nearest city that has a population of 25,000 or more.[1790] Moreover, they propose that we adopt a threshold distance to take into account the potential distance charges paid by urban providers, that would be established on a state-wide basis. They propose that a rural provider should not receive a subsidy on distance-based charges associated with distances less than that threshold distance.[1791] For the reasons discussed above, we find that the Commission has the authority to subsidize distance-based charges, and we adopt an approach similar to that recommended by these ILECs, as discussed below.

678. We conclude that the universal service support mechanisms shall support eligible telecommunications services for a distance not to exceed the distance between the

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[1787] *See, e.g.*, AHA comments at 5; American Telemedicine comments at 5; HHS comments at 2, 4; Illinois DPH comments at 2; Kansas DHE comments at 1; Kansas Hospital Association comments at 2; Nebraska Hospitals comments at 3; Letter from Larry Irving, NTIA, to Chmn. Reed Hundt, FCC, dated 4/24/97 (NTIA 4/24 *ex parte*); St. Alexius comments at 1; University of Nevada School of Medicine comments at 1; Scott & White reply comments at 1; University of Kentucky Center for Rural Health reply comments at 1.

[1788] *See* Nebraska Hospitals comments at 2-3.

[1789] *See* Letter from Robert A. Shives, Jr., PacTel, Mary L. Henze, BellSouth, Marvin Bailey, Ameritech, and Todd F. Silbergeld, SBC, to Kathleen B. Levitz, FCC, dated Apr. 16, 1997 (Assembled Companies Apr. 16 *ex parte*) at 1.

[1790] Assembled Companies Apr. 16 *ex parte* at 2.

[1791] Assembled Companies Apr. 16 *ex parte* at 3.

health care provider and the point on the jurisdictional boundary of the city used to calculate the urban rate that is most distant from the health care provider's location. Because rural health care providers may select any commercially available telecommunications service with bandwidths up to and including 1.544 Mbps, such an approach is competitively neutral. Moreover, this plan should suffice to connect a rural health care provider with a health care provider in the nearest large city in the state or an Internet service provider. We agree with those ILECs that contend that establishing a maximum distance for which a rural health care provider can receive support should "protect against an otherwise natural tendency for a subsidized rural provider to request telemedicine connections to far flung areas in search of the real or imagined 'expert' in the field."[1792] Moreover, we agree with the group of ILECs that limiting support to connections to the nearest large city in the state is consistent with Congress's intent to make rural and urban rates comparable, rather than making rural health care providers better off than their urban counterparts.[1793]

679. We clarify that, at its discretion, an eligible rural health care provider may choose to connect to a point within the state or across state lines that is closer than the nearest city with a population of 50,000 or more within the state, provided that the health care services can be provided consistent with state law. We do not limit support to a connection to the nearest large city, irrespective of state lines, because state physician licensing requirements may preclude a rural health care provider from establishing a telemedicine connection with the nearest large city in another state. We note that choosing to connect to a city closer than the nearest large city in the state could reduce the amount that the health care provider itself must pay. Thus, as the group of ILECs suggest, the eligible health care provider has an incentive to make rational choices about the telecommunications services it needs, as well as the flexibility to make decisions based on criteria other than just cost.[1794]

680. As the group of ILECs indicate, urban health care providers are not exempted from distance charges in connection with the purchase of telecommunications services.[1795] To the extent that they connect with other health care providers and Internet service providers within that city, however, these urban health care providers would appear to be less likely than their rural counterparts to incur distance-based charges over a distance greater than the longest diameter of the city in which they are located. Accordingly, we agree with the group of ILECs that blanket subsidization of distance-based charges for rural health care providers

[1792] Assembled Companies Apr. 16 *ex parte* at 2.

[1793] Assembled Companies Apr. 16 *ex parte* at 1.

[1794] Assembled Companies Apr. 16 *ex parte* at 2.

[1795] Assembled Companies Apr. 16 *ex parte* at 2.

could result in inequalities between rural and urban health care providers.[1796] Therefore, we adopt the ILECs' proposal to adopt a standard urban distance on a state-wide basis that takes into account the potential distance charges paid by urban health care providers. To calculate that distance, however, we adopt a city size consistent with our definition of "nearest large city." Accordingly, we conclude that the longest diameters of all cities with a population of 50,000 or more within a state should be averaged to arrive at that state's standard urban distance.[1797] We conclude that using a state-wide distance figure should minimize the administrative burden on the Administrator and carriers while establishing a reasonable estimation of the distance charges that an urban health care provider might incur.

681. Consistent with that approach, if a rural health care provider requests a service to be provided over a distance that is less than or equal to the standard urban distance for the state in which it is located, the urban rate for that service shall be no higher than the highest tariffed or publicly available rate charged to a commercial customer for a similar service provided over the same distance in the nearest large city in the state, calculated as if the service were provided between two points within the city. For purposes of calculating the appropriate amount of universal service support, this urban rate will then be compared with the rural rate for a similar service over the same distance. If a rural health care provider requests a service to be provided over a distance that is greater than the standard urban distance for the state in which it is located, the urban rate shall be no higher than the highest tariffed or publicly available rate charged to a commercial customer for a similar service provided over the standard urban distance in the nearest large city in the state, calculated as if the service were provided between two points within the city. This urban rate will then be compared to the rural rate for the same or similar telecommunciations service provided over a distance not to exceed the distance between the health care provider and the point on the jurisdictional boundary of the city used to calculate the urban rate that is most distant from the health care provider's location.

682. InterLATA Charges. We decline to provide additional mechanisms to support what commenters and the Joint Board referred to as LATA-crossing charges. To the extent that this term refers to rates for interexchange services, we note that, under the provisions of section 254(g),[1798] such rates charged to health care providers in rural areas are to be no higher than the rates charged to the IXC's subscribers in urban areas. To the extent that the term LATA-crossing charges refers to access charges for a service provided to a rural

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[1796] Assembled Companies Apr. 16 *ex parte* at 2-3.

[1797] Assembled Companies Apr. 16 *ex parte* at 3 (proposing that the longest geographical dimension of each city with a population of 25,000 or more within a state be averaged together to arrive at that state's "standard urban mileage" figure).

[1798] 47 U.S.C. § 254(g).

customer, the mechanisms that we adopt will support such charges by supporting the difference between the rural rate and the urban rate.

683. We note that, as a result of the 1996 Act, competitive entry into the local exchange market will increase. As those markets are opened, firms presently precluded from entering the interLATA market may be allowed to offer interLATA services with the result that LATA boundaries are likely to have less functional importance.[1799] Under these circumstances, charges related to LATA crossing are likely to become less burdensome. We will re-examine this issue no later than the next review of the services eligible for universal service support in the year 2001.

684. Limiting Supported Services. The Act directs that universal service support mechanisms should be specific, predictable, and sufficient.[1800] In order to establish such mechanisms for a new and untried program, we conclude that we must limit the services that a rural health care provider may receive. As discussed above, we conclude that bandwidth transmission speeds above 1.544 Mbps are not necessary for the provision of health care services at this time. Accordingly, we conclude that, upon submitting a bona fide request to a telecommunications carrier, a rural health care provider is eligible to receive, for each separate site or location, the most cost-effective, commercially-available telecommunications service with a bandwidth capacity of 1.544 Mbps at a rate no higher than the urban rate, as defined herein, provided over a distance not to exceed the distance between the health care provider and the point on the jurisdictional boundary of the city used to calculate the urban rate that is the most distant from the health care provider's location (the allowable distance). The most cost effective service is the service available at the lowest cost after consideration of the features, quality of transmission, reliability, and other factors the health care provider deems necessary for the service adequately to transmit the health care services the provider requires.

685. As discussed above, we conclude that allowing a rural health care provider to purchase a service with a bandwidth capacity of 1.544 Mbps, at distances up to the limit described above, should enable such a provider to establish a connection with a health care provider located in the nearest city or with an Internet service provider. The rural health care provider may request any other service or combination of services with transmission speeds slower than 1.544 Mbps, transmitted over the same or shorter distance, so long as the total annual support amount for all such services to that health care provider combined, calculated as provided herein, does not exceed what the support amount would have been for the most cost-effective service with a bandwidth capacity of 1.544 Mbps at the allowable distance, calculated as discussed above. Use of transmission speeds slower than 1.544 Mbps may be required where no 1.544 Mbps service is commercially available or may be the preference of

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[1799] *See* 47 U.S.C. § 271.

[1800] 47 U.S.C. § 254(b)(5).

a rural health care provider that desires more than one supported service. For example, a rural health care provider could request one or more ISDN connections to an urban health care provider in the nearest large city, so long as the total amount of support for all the requested services does not exceed the amount that would have been necessary to support the most cost-effective service with a bandwidth capacity of 1.544 Mbps connecting the rural health care provider to the farthest point on the jurisdictional boundary of the nearest large city. If the eligible health care provider is located in a rural area in which a service with a bandwidth capacity of 1.544 Mbps is not commercially available and the rate for such a service is therefore unavailable, the maximum amount of support available shall be the difference, if any, between the urban rate and the rural rate, as defined herein, for the most cost-effective service available using a bandwidth of 1.544 Mbps in another rural area of the state.

3. Competitive Bidding

686. Consistent with the Joint Board's recommendation for eligible schools and libraries, we conclude that eligible health care providers shall be required to seek competitive bids for all services eligible for support pursuant to section 254(h) by submitting their bona fide requests for services to the Administrator. Such requests shall include a statement, signed by an officer of the health care provider authorized to order telecommunications services, certifying under oath to the bona fide request requirements discussed below.[1801] The Administrator shall post the descriptions of requested services on a website so that potential providers can see and respond to them.[1802] As with schools and libraries, the request may be as formal and detailed as the health care provider desires or as required by any applicable federal or state laws or other requirements. The request shall contain information sufficient to enable the carrier to identify and contact the requester and to know what services are being requested. The posting of a rural health care provider's description of services will satisfy the competitive bidding requirement for purposes of our universal service rules. We emphasize, however, that the submission of a request for posting under our rules is not a substitute for any additional and applicable state, local, or other procurement requirements.

687. After selecting a telecommunications carrier, the rural health care provider shall certify to the Administrator that the service chosen is, to the best of the health care provider's knowledge, the most cost-effective service available. Moreover, the health care provider shall submit to the Administrator copies of the other responses or bids received in response to its request for services. As with schools and libraries, we are not requiring health care providers to select the lowest bids offered, but rather will permit them to take quality of service into

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[1801] *See supra* section XI.F.2. As noted, however, the health care provider shall certify to the cost-effectiveness of the selected service only after selecting a telecommunications carrier.

[1802] *See* State Health Care Report at 4 (advocating this approach).

account and to choose the offering or offerings that they find most cost-effective, where this is consistent with other procurement rules under which they are obligated to operate.[1803] After being selected, the carrier shall certify to the Administrator the urban rate, the rural rate, and the difference sought as an offset against the carrier's universal service obligation.

688. We adopt a competitive bidding requirement because we find that this requirement should help minimize the support required by ensuring that rural health care providers are aware of cost-effective alternatives. Like the language of section 254(h)(1) targeting support to public and nonprofit health care providers, this approach "ensures that the universal service fund is used wisely and efficiently."[1804]

689. While the Joint Board did not discuss competitive bidding for rural health care providers generally, it rejected a competitive bidding plan suggested by Florida Cable as more complicated and less easily administered than the plan that the Joint Board recommended.[1805] The state members of the Joint Board have subsequently endorsed the use of a competitive bidding process for health care providers to encourage competitive neutrality and foster competition and cost effectiveness.[1806]

4. Insular Areas and Alaska

a. Background

690. Section 254(b)(3)[1807] provides that consumers in insular areas should have access to telecommunications and information services, including interexchange services, advanced telecommunications services, and information services that are: (1) reasonably comparable to those services provided in urban areas; and (2) that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.[1808] Congress

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[1803] *See supra* section X.C.2. As we note in the schools and libraries section, federal procurement regulations (which are inapplicable here) specify that in addition to price, federal contract administrators may take into account such factors as: prior experience, including past performance; personnel qualifications, including technical excellence; management capability, including schedule compliance; and environmental objectives. *See* Federal Acquisition Regulation 15.605. Rural health care providers may choose to take such factors into account when reviewing bids.

[1804] 141 Cong. Rec. S8417 (Senator Snowe) June 15, 1995.

[1805] Recommended Decision, 12 FCC Rcd at 427. *See also* Florida Cable NPRM comments at 17-18.

[1806] State Health Care Report at 4.

[1807] 47 U.S.C. § 254(b)(3).

[1808] 47 U.S.C. § 254(b)(3).

stated that the Joint Board and the Commission were to consider consumers of telecommunications services in insular areas, such as the Pacific Island territories, when developing support mechanisms for consumer access to telecommunications and information services.[1809]

691. The Joint Board recommended that the Commission seek further information about the issue of whether insular areas experience a disparity in telecommunications rates between urbanized and non-urbanized parts of their territories.[1810] In particular, the Joint Board recommended that the Commission seek further information regarding the size of cities and other demographic information that might be used to establish urban and rural telecommunications rates in each of the insular areas.[1811] In the Recommended Decision Public Notice, the Common Carrier Bureau inquired if insular areas experience a disparity in telecommunications rates between urbanized and non-urbanized areas.[1812]

b. Discussion

692. Statutory Authority. We note that the provisions of section 254(h)(1)(A) apply to insular areas, because the Act defines "State" to include all United States "Territories and possessions."[1813] We conclude, moreover, that section 254(h)(2)(A) authorizes our adoption of special mechanisms by which to calculate support for these territories. Section 254(h)(2)(A) directs us, in part, to establish competitively neutral rules "to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications . . . services for all public and nonprofit . . . health care providers."[1814]

693. Insular Areas. Although the Common Carrier Bureau sought comment on whether insular areas experience a disparity in telecommunications rates between urbanized and non-urbanized areas,[1815] the record contains little information on this point.[1816] Moreover,

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[1809] Joint Explanatory Statement at 131.

[1810] Recommended Decision, 12 FCC Rcd at 429.

[1811] Recommended Decision, 12 FCC Rcd at 429.

[1812] Recommended Decision Public Notice at 2.

[1813] *See* 47 U.S.C. § 153(40).

[1814] *See* 47 U.S.C. § 254(h)(2)(A).

[1815] *See* Recommended Decision Public Notice at 2. In the NPRM, the Commission requested comment on all issues affecting insular areas. The Common Carrier Bureau's Further Comments Public Notice asked what programs (in addition to those aimed at high cost areas) are needed to ensure that insular areas have affordable telecommunications services.

commenters have provided little information regarding what programs (in addition to those targeted to rural, insular, or high cost areas) are needed to ensure that insular areas have affordable telecommunications services.[1817] Nor have parties, other than CNMI, provided information from which the costs of such programs might be estimated.[1818]

694. The record does indicate, however, that the unique geographic and demographic circumstances of CNMI and Guam -- including their uniformly rural character, their lack of a city with a population as large as 50,000, or indeed any real urbanized population centers, their lack of counties or county equivalents, and the relatively small size and low density of their populations -- render the mechanisms we adopt under section 254(h)(1)(A) ill-suited to these territories without modifications.[1819]

695. We note that the record contains no information about the status and availability of health care services and telemedicine in American Samoa, the U.S. Virgin Islands, or any other insular areas except for CNMI, Guam, and Puerto Rico. We recognize, however, that American Samoa and the U.S Virgin Islands, like CNMI and Guam, are relatively isolated, have small populations, and have limited medical resources.[1820] American Samoa is a chain of seven Pacific islands with a total land area of 76 square miles. Ninety-five percent of the territory's population of 56,000 lives on the island of Tutuila, where the territory's single hospital is also located.[1821] The U. S. Virgin Islands is a United States territory of three islands located in the Carribean Sea 1,000 miles southeast of Miami. The population in 1995 was 110,000. The U.S. Virgin Islands has a Department of Health; two 250-bed hospitals, one on St. Thomas and one on St. Croix; a community mental health center; and clinics on St. Croix and St. John.[1822] Therefore, we conclude that we may need to tailor additional support mechanisms to address the unique circumstances faced by both the health care providers and telecommunications carriers that serve these islands.

[1816] CNMI and Guam filed comments addressing this issue and CNMI has, in addition, filed several *ex parte* letters. *See, e.g.*, Letter from Thomas K. Crowe, counsel to CNMI, to William F. Caton, FCC, dated Feb. 7, 1997, and Letter from Thomas K. Crowe, counsel to CNMI, to William F. Caton, FCC, dated Mar. 28, 1997 (CNMI Mar. 28 *ex parte).*

[1817] *See* Further Comment Public Notice at Question 6.

[1818] CNMI Mar. 28 *ex parte* at 1.

[1819] *See* CNMI comments at 22-23; Governor of Guam comments at 13.

[1820] *See* U.S. DEPARTMENT OF THE INTERIOR, OFFICE OF INSULAR AFFAIRS, A REPORT ON THE STATE OF THE ISLANDS (1996 Insular Report) at 17-23, 67-77 (Aug. 1996).

[1821] 1996 Insular Report at 17, 27.

[1822] 1996 Insular Report at 65, 73-74.

696. Given the lack of comprehensive information in the record regarding the telecommunications needs of insular areas and the costs of supporting such services, we will issue a Public Notice regarding these issues. Parties may discuss the proposal of the Governor of Guam to designate telecommunications services between an insular area's medical facilities and a supporting medical center in an urban area outside the insular area as services eligible for support.[1823] They may likewise address CNMI's proposal that universal service mechanisms should support per-minute toll charges for inter-island calls.[1824] We will seek additional proposals for support mechanisms by which we could ensure that health care providers located in these territories will have access to the telecommunications services available in urban areas in the country, at affordable rates, as Congress intended.[1825]

697. In this Order, we designate urban and rural areas in these territories by which to set the "urban rate" and calculate the amount of support under section 254(h)(1)(A) consistent with our general approach to that section. Based on their status as the largest population centers in the territories, we designate the following areas as urban areas for purposes of setting the urban rate: for American Samoa, the island of Tutuila; for CNMI, the island of Saipan;[1826] for Guam, the town of Agana; and for the U.S. Virgin Islands, the town of Charlotte Amalie. For purposes of calculating the "rural rate," all other areas in each of the above-listed territories are designated as rural areas.

698. The "urban rate" shall be no higher than the highest tariffed or publicly available rate charged for the requested service in each territory's designated urban area. The "rural rate," used to calculate the support amount, shall be the average of tariffed and other publicly available rates, not including rates reduced by universal service mechanisms, charged for the same or similar services in the rural areas of the territory. If no such services are available in the rural areas of the territory, or, at the carrier's option, the carrier may submit for the territorial commission's approval, a cost-based rate for the provision of the service in the most economically efficient, reasonably available manner. In addition to the support outlined here, we will provide additional support for limited toll-free access to an Internet service provider pursuant to section 254(h)(2)(A), as discussed below, which applies equally to health care providers in insular areas.[1827]

[1823] *See* Governor of Guam comments at 13.

[1824] *See* CNMI comments at 25-26.

[1825] *See* 47 U.S.C. § 254(b)(3); Joint Explanatory Statement at 131.

[1826] *See* CNMI comments at 25-26.

[1827] *See* CNMI comments at 25 n.70 (requesting support for toll-free Internet access); Governor of Guam comments at 4-6 (requesting support for toll-free Internet access).

699. Puerto Rico. We find it unnecessary to adopt measures beyond those adopted for rural health care providers in other areas to ensure that rural health care providers in Puerto Rico have access to affordable telecommunications services that are necessary to provide health care services. The record shows that Puerto Rico has a population of 3.74 million people and well-defined metropolitan and nonmetropolitan areas, including 28 municipalities listed as MSAs.[1828] Puerto Rico has sixty-seven hospitals, including nineteen in nonmetropolitan areas, and the San Juan Regional Hospital and Main Medical Center is an advanced health care center offering sophisticated and advanced health care technology and services.[1829] No commenters have objected to applying to Puerto Rico the mechanisms described in the Recommended Decision for defining the urban and rural rates for rural health care providers. These facts suggest that the universal service support mechanisms for rural health care providers that we have adopted under section 254(h)(1)(A) can be applied within the territorial limits of Puerto Rico. Accordingly, we find it unnecessary to add any provisions for rural health care providers in this insular area.

700. Alaska. The record developed in response to the Recommended Decision suggests that much of the difficulty of implementing telemedicine programs in the vast frontier areas in Alaska arises from the lack of basic telecommunications network infrastructure necessary to support telemedicine.[1830] Alaska asserts that because of the state's vast size, rugged terrain, harsh weather, and sparse population, "the major obstacle to providing telemedicine services in Alaska is that the public switched network is not currently capable of providing services in rural locations where there is significant need."[1831] The Alaska PUC states that Alaska is "heavily dependent on satellite communications to provide links between the majority of remote, rural health care providers and the few regional hospitals," and affordable satellite connectivity is often limited to bandwidth of 9.6 kbps.[1832] The need to "hop" satellite signals through multiple earth stations and the use of antiquated analog earth stations reduce transmission speed and reliability even further and often result in the inability to use fax machines or computer modems.[1833]

[1828] *See* Letter from Joaquin A. Marquez, Puerto Rico Telephone Company (PRTC), to William F. Caton, FCC, dated Mar. 25, 1997 (PRTC March 25 *ex parte*) attachment at 6; Letter from Wilfredo Garcia, PRTC, to John Clark, FCC, dated April 8, 1997 (PRTC Apr. 8 *ex parte*).

[1829] *See* Letter from Maria M. Guevara, PRTC, to John Clark, FCC, dated Apr. 11, 1997 (PRTC Apr. 11 *ex parte*), attachment at 7-11.

[1830] Alaska Mar. 7 *ex parte*, attachment at 2-3.

[1831] Alaska Mar. 7 *ex parte*, attachment at 2-3.

[1832] Alaska PUC comments at 5.

[1833] Alaska Mar. 7 *ex parte*, attachment at 3.

701. To the extent that rural health care providers in Alaska experience distance-sensitive telecommunications charges greater than those faced in urban areas in that state,[1834] the mechanisms adopted in this section should afford some relief to those health care providers by reducing or eliminating such disparities. As discussed above, however, we decline at this time to adopt support mechanisms for infrastructure development, including infrastructure development in Alaska, but encourage parties interested in obtaining such support for Alaska to present comments in response to our Public Notice on this issue.

E. Capping and Administering the Mechanisms

1. Selecting Between Combined or Separate Support Mechanisms for Health Care Providers and for Schools and Libraries

a. Background

702. In the Further Comment Public Notice, the Common Carrier Bureau asked whether separate funding mechanisms should be established for schools and libraries and for rural health care providers.[1835] The Joint Board recommended the use of a single funding mechanism with separate accounting and allocation systems for the two groups.[1836]

b. Discussion

703. As discussed above, consistent with the Joint Board's recommendation, we will use a unified mechanism for eligible health care providers and schools and libraries with separate accounting and allocation systems for the funds collected for the two groups.[1837] We agree with the Joint Board and the parties contending that separate funding mechanisms would be expensive and unnecessary.[1838] We further agree with the Joint Board and commenters that separate accounting and allocation systems are necessary because the 1996 Act establishes different requirements for calculating disbursements to schools and libraries

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[1834] *See* Alaska PUC comments at 7.

[1835] Further Comment Public Notice at Question 22.

[1836] Recommended Decision, 12 FCC Rcd at 434.

[1837] *See supra* section X.E.2.

[1838] *See* Recommended Decision, 12 FCC Rcd at 434.

and to health care providers.[1839] Moreover, we find that establishing two separate systems (within the single fund) will facilitate monitoring for fraud, waste, and abuse and, if necessary, amending the systems governing support to one group without necessarily altering the systems for the other group.[1840]

2. Funding Cap

a. Funding Cap Level

704. Although the Joint Board did not propose a funding cap on the amount of universal service support for health care providers, we agree with those commenters who advocate a total cap to control the size of the support mechanisms.[1841] We note that there is no existing program to help us estimate the cost of funding the support program for health care providers that we adopt under sections 254(h)(1)(A) and 254(h)(2)(A), unlike our programs for high cost and low-income assistance for which we have historical data.[1842] Moreover, it is difficult to estimate costs given that technologies are developing rapidly and demand is inherently difficult to predict. Therefore, to fulfill our statutory obligation to create specific, predictable, and sufficient universal service support mechanisms, we establish an annual cap of $400 million on the amount of funds available to health care providers.[1843] Collection and distribution of the funding will begin in January 1998, consistent with other universal service support mechanisms implemented pursuant to this Order.

705. After substantial deliberations, we conclude that a program that calls for contributions of no more than $400 million annually should ensure sufficient mechanisms, because it is based on the maximum amount of service that we have found necessary and on generous estimates of the number of potentially eligible rural health care providers. No commenter has presented record evidence suggesting a method for determining the amount for a cap, so we have estimated the annual aggregate potential demand for funds based on the

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[1839] *See* Recommended Decision, 12 FCC Rcd at 434; Bell Atlantic NPRM further comments at 7; BellSouth NPRM further comments at 30; PacTel NPRM further comments at 27; U S West NPRM further comments at 12; USTA NPRM further comments at 17.

[1840] *See* AirTouch NPRM further comments at 19; Bell Atlantic NPRM further comments at 7; BellSouth NPRM further comments at 30; PacTel NPRM further comments at 27; U S West NPRM further comments at 12; USTA NPRM further comments at 17.

[1841] *See* AT&T comments at 25; Georgia PSC reply comments at 30; ICC comments at 6; WorldCom comments at 31.

[1842] *See supra* sections VII (high cost) and VIII (low income).

[1843] *See* 47 U.S.C. § 254(b)(5).

record evidence. We estimate that the total cost of the program should not exceed $400 million annually, based on the assumptions discussed below.

706. First, we estimate that there are approximately 12,000 health care providers located in rural areas that are eligible to receive supported services under section 254(h)(1)(A). There is no list of public and non-profit health care providers that fit the definition of "health care provider" in section 254(h)(5)(B) and are located in rural areas, and ORHP/HHS suggests that the number of potentially eligible providers would be difficult to determine before the universal service mechanisms are implemented.[1844] Nonetheless, we have developed an estimate of the number of rural health care providers based on figures supplied by various federal agencies and national associations.[1845]

707. Second, we estimate that the maximum cost of providing services eligible for support under section 254(h)(1)(A) is $366 million, if all eligible health care providers obtain the maximum amount of supported services to which they are entitled. That is, we assume that each rural health care provider will request support for a service of 1.544 Mbps. We recognize that service of that bandwidth is not available in all areas and that many rural health care providers may choose not to use the full amount of support represented by that service. Therefore, the actual cost of support should be lower than our estimate. We also

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[1844] *See* ORHP/HHS NPRM comments at 6-7.

[1845] While these entities have records regarding the types of health care providers that are supported under the Act, such records are often not current and are generally limited to entities that are either grantees of the agencies' programs or members of the associations. In addition, entities that maintain data on health care providers often do not distinguish between private and public or non-profit health care providers or identify those health care providers that are located in rural areas. While we have attempted to compensate for these factors in our estimates, we recognize that our estimate of the number of potentially eligible health care providers is subject to error. We set forth the individual estimates on which the 12,000 total estimate is based, by statutory category of eligible provider and with reference to supporting sources: category 1) 625 "post-secondary educational institutions offering health care instruction, teaching hospitals, and medical schools," including 403 rural community colleges (Letter from Kent A. Phillipe, Am. Ass'n of Community Colleges, to John Clark, FCC, dated Mar. 31, 1997, at 2), 124 medical schools with rural programs (Letter from Donna J. Williams, Ass'n of Am. Medical Colleges, to John Clark, FCC, dated Sept. 9, 1997), and 98 rural teaching hospitals (Letter from Kevin G. Serrin, Ass'n of Am. Medical Colleges, to John Clark, FCC, dated Sept. 5, 1996); category 2) 1,200 "community health centers or health centers providing health care to migrants" (Letter from Richard C. Bohrer, Div. of Community and Migrant Health, HHS, to John Clark, FCC, dated Mar. 31, 1997, at 2); category 3) 3,526 "local health departments or agencies," including 1,704 local health departments (Letter from Nancy Rawding, Nat'l Ass'n of County and City Health Officials, to John Clark, FCC, dated Apr. 2, 1997), and 1,822 local boards of health (Letter from Ned E. Baker, Nat'l Ass'n of Local Bds. of Health, to John Clark, FCC, dated Apr. 2, 1997); category 4) 1,500 "community mental health centers" (Telephone contact with Mike Weakin, Ctr. for Mental Health Services, HHS, May 2, 1997); category 5) 2,049 "not-for-profit hospitals" (Am. Hospital Ass'n Ctr. for Health Care Leadership, *A Profile of Nonmetropolitan Hospitals 1991-95*, at 5 (1997)); category 6) 3,329 "rural health clinics" (Letter from Patricia Taylor, ORHP/HHS, to John Clark, FCC, dated May 2, 1997); and category 7) consortia of health care providers accounted for in the first six categories.

assume that rates will be higher in rural areas than in urban areas. As the record suggests, however, rates are frequently averaged,[1846] a factor that should likewise reduce the amount of support required. We further assume that for each rural health care provider, the support mechanisms will fund distance-based charges for 100 miles per provider, a reasonable number of miles based on the record.[1847]

708. We further estimate that the maximum cost of support for toll-free access to an Internet service provider, provided under section 254(h)(2)(A), will be $26 million. That estimate is based on an assumption that the number of nonprofit and public health care providers that cannot obtain toll-free access to an Internet service provider is 12,000, our estimate of the number of eligible rural health care providers. Because the record indicates that many rural health care providers can reach an Internet service provider with a local call,[1848] the actual cost of support may be much lower. Moreover, the estimate is based on the assumption that each rural health care provider will use the maximum dollar amount of support ($180 per month). In fact, some rural health care providers may not take Internet service due to the monthly service charge. Moreover, some health care providers eligible to receive limited toll-free access to an Internet service provider may obtain such access from a service provider that imposes a toll charge of less than $.10 per minute, in which case only the toll charges associated with 30 hours of access would be supported, at less than $180 per month. Therefore, the actual cost of support is expected to be lower than our estimate.

709. We decline to adopt a per-institution dollar cap as some commenters propose,[1849] because we believe that the limits on supported services set forth in section XI.B.2 above should suffice to ensure that support is distributed equitably among health care providers and that it is specific, predictable, and sufficient.

b. Operation of Cap

[1846] *See, e.g.*, MCI comments at 18; SBC reply comment at 24-27; PacTel comments at 14; USTA comments at 40.

[1847] In its comments submitted in response to the NPRM, ORHP/HHS submitted an attachment containing summary data on its telemedicine grantees as of April 1996. The average distance reported for the telemedicine connections to a "point-of-presence" for these grantees was 99.8 miles. *See* ORHP/HHS NPRM comments, attachment. In addition, included with comments submitted in response to the Recommended Decision were numerous survey forms that had been submitted by health care providers involved in telemedicine projects. The Commission received survey forms that provided data on 66 telemedicine projects involving 925 separate sites. The responses, which were not drawn from a scientifically selected or statistically accurate sample, included a statement of the mileage distance to the "nearest city of population equal to or greater than 50,000 in . . . [the respondent's] state." The average distance reported was 118 miles.

[1848] *See, e.g.*, Georgia PSC reply comments at 30; SBC comments at 10.

[1849] *See* AT&T comments at 25; Georgia PSC reply comments at 30.

710. Timing of Funding Requests. As discussed above, we adopt an annual cap of $400 million for universal service support for health care providers pursuant to sections 254(h)(1)(A) and 254(h)(2) of the Act. Support will be committed on a first-come-first-served basis. Consistent with other universal service support mechanisms implemented pursuant to this Order, the funding year for health care providers will begin on January 1, with requests for support accepted beginning on the first of July prior to each calendar year. Health care providers will be permitted to submit funding requests once they have made agreements for specific eligible services,[1850] and the Administrator will commit funds based on those agreements until the total payments committed during a funding year reach the amount of the cap.

711. The Administrator shall measure commitments against the $400 million limit based on the contractually-specified expenditures for recurring flat-rate charges for telecommunications services that a health care provider has agreed to pay and the commitment of an estimated variable usage charge, based on documentation from the health care provider of the estimated expenditures that it has budgeted to pay for its share of usage charges. Health care providers must file their contracts with the Administrator either electronically or by paper copy. Moreover, health care providers must file new funding requests for each funding year. Such requests will be placed in the funding queue based on the date and time they are received by the Administrator.

712. As with schools and libraries, we conclude that these rules will give health care providers the certainty they need for budgeting. Some uncertainty may remain about whether an institution will receive the same level of support from one year to the next because demand for funds may exceed the funds available despite our efforts to set the cap at a level intended to permit participation by all eligible health care providers and the cap might not be raised immediately. If that does occur, we cannot guarantee support in the subsequent year without placing institutions that have not formulated their telecommunications plans in the previous year at a disadvantage, possibly preventing such entities from receiving any universal service support. We acknowledge that requiring annual refiling for recurring charges places an additional administrative burden on eligible institutions. As with schools and libraries, however, we find that allowing funding for recurring charges to carry forward from one funding year to the next would favor those who are already receiving funds and might deny any funding to those who had never before received funding.

713. Adjustments to Cap. We do not anticipate that the cost of funding eligible services will exceed the cap, given the limits on the services that any one health care provider may request, and we do not want to create incentives for health care providers to file requests for services prematurely to ensure funding. If the amount of support needed for requested

[1850] Health care providers may insist that those agreements be made contingent on universal service funding approval.

services exceeds the funding cap, this will indicate that our estimates were less accurate than we expect and will suggest that we must adjust the cap. We will consider the need to revise the cap in our three-year review proceeding and sooner if we find it necessary to ensure the sufficiency of the fund or to respond to requests from interested parties for expedited review.

714. Advance Payment for Multi-Year Contracts. We conclude that providing funding in advance for multiple years of recurring charges could enable an individual health care provider to guarantee that its full needs over a multi-year period were met, even if other health care providers were unable to obtain support due to insufficient funds. Moreover, we are also concerned that funds would be wasted if a prepaid service provider's business failed before it had provided all of the prepaid services. At the same time, we recognize that health care providers often will be able to negotiate better rates for pre-paid/multi-year contracts, reducing the costs that both they and the universal service support mechanisms incur. Therefore, we conclude that while eligible health care providers should be permitted to enter into pre-paid/multi-year contracts for supported services, the Administrator will only commit funds to cover the portion of a long-term contract that is scheduled to be delivered during the funding year. Eligible health care providers may either structure their contracts so that payment is required on at least a yearly basis or, if they wish to enter into contracts requiring advance payment for multiple years of service, they may use their own funds to pay full price for the portion of the contract exceeding one year (pro rata), and request that the service provider rebate the payments from the support mechanism that it receives in subsequent years to the eligible health care provider.

715. Collections. We lack sufficient historical data to estimate accurately the funding demands for the first year of this program. As discussed above, in the past when the Commission has established similar funding mechanisms, the Commission or the Administrator has had access to information upon which to base an estimate of necessary first-year contribution levels. No unified mechanism exists to provide telecommunications and information services to the nation's health care providers. We agree with NYNEX and Bell Atlantic that funds should be collected for assistance to health care providers on an as-needed basis, to meet anticipated actual expenditures over time.[1851] Therefore, we direct the Administrator to collect $100 million for the first three months of 1998 and to adjust future contribution assessments quarterly based on its evaluation of health care provider demand for funds, within the limits of the spending cap we establish here. We direct the Administrator to report to the Commission, on a quarterly basis, both the total amount of payments made to entities providing services to health care providers to finance universal service support and its determination regarding contribution assessments for the next quarter.[1852]

[1851] Letter from G. R. Evans, NYNEX, to William F. Caton, FCC, dated Apr. 30, 1997.

[1852] Quarterly reports shall be filed with the Commission within 30 days after the end of each quarter.

716. As with the schools and libraries mechanism, we find that adjustments for any large reserve of remaining funds can be addressed in our review in the year 2001. As part of its review in the year 2001, the Joint Board likewise will review the appropriate level of funding of the health care program.

F. Restrictions and Administration

1. Restrictions on Resale and Aggregated Purchases

a. Background

717. Section 254(h)(3) states that "[t]elecommunications services and network capacity provided to a public institutional telecommunications user under this subsection may not be sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value."[1853] The Joint Explanatory Statement explains that this section "clarifies that telecommunications services and network capacity provided to health care providers . . . may not be resold or transferred for monetary gain."[1854]

718. The Joint Board advocated the strict enforcement of the prohibition in section 254(h)(3) against the resale of supported services, and urged that an audit program be established sufficient to monitor effectively and evaluate the use of supported services in aggregated purchase arrangements.[1855] The Joint Board emphasized, however, that this prohibition should not restrict or inhibit joint purchasing and network-sharing arrangements with both public and private entities and individuals. The Joint Board recommended that health care providers be encouraged to enter into aggregate purchasing and maintenance agreements for telecommunications services with other public and private entities and individuals, but that the entities and individuals not eligible for universal service support pay the full contract rates for their portion of the services. In addition, the Joint Board recommended that the Commission's order make clear that, under such arrangements, the qualified health care provider is eligible for reduced rates, and the telecommunications carrier eligible for support, only on that portion of the services purchased and used by that health care provider. The Joint Board concluded that these arrangements should be subject to full disclosure and close scrutiny under the audit program it recommended.[1856]

[1853] 47 U.S.C. § 254(h)(3). *See also supra* section XI.D.3 (explaining that the definition of "health care provider" includes "consortia of health care providers").

[1854] Joint Explanatory Statement at 133.

[1855] Recommended Decision, 12 FCC Rcd at 455.

[1856] Recommended Decision, 12 FCC Rcd at 455.

b. Discussion

719. Consortia. We agree with the Joint Board and those commenters observing that aggregated purchase or network sharing arrangements can substantially reduce costs and in some cases are necessary to sustain a rural telecommunications network.[1857] As the Joint Board stated, and as we did with schools and libraries, we recognize that aggregation into consortia can promote efficient shared use of facilities to which each consortium member might need access, but for which no single user needs more than a small portion of the facilities' full capacity.[1858] We also recognize, however, that allowing health care providers to aggregate with other local customers, such as schools and libraries, may increase the difficulty of enforcing the eligibility and resale limitations. Nevertheless, as we did for schools and libraries, we conclude that the benefits of aggregation outweigh the administrative difficulties discussed below. Therefore, we adopt, with slight modification, the Joint Board's recommendation to encourage health care providers to enter into aggregate purchasing and maintenance agreements for telecommunications services with other entities and individuals, as long as the entities not eligible for universal service support pay full rates for their portion of the services.[1859] Consistent with the schools and libraries directive and reasoning regarding aggregated purchase arrangements, however, eligible health care providers participating in consortia that include private sector members will not be eligible to receive universal service support, with one exception.[1860] Eligible health care providers participating in such a consortium may receive support, if the consortium is receiving tariffed rates or market rates, from those providers who do not file tariffs.[1861] We find that this prohibition will deter ineligible, private entities from entering into aggregated purchase arrangements with rural health care providers to receive below-tariff or below-market rates that they otherwise would not be entitled to receive.[1862]

[1857] *See* Recommended Decision, 12 FCC Rcd at 455; ORHP/HHS NPRM comments at 10-11. *See also* American Telemedicine comments at 3; Nebraska Hospitals comments at 2; Taconic Tel. Corp. NPRM reply comments at 5.

[1858] *See supra* section X.C.2.

[1859] Recommended Decision, 12 FCC Rcd at 455.

[1860] *See supra* sections X.C.2., X.D.2.

[1861] *See supra* section X.C.2.

[1862] We do not believe, however, that such a limitation will inhibit the ability of eligible health care providers to participate in advanced telecommunications services or deny access to community-based telecommunications facilities. *See* RUPRI Rural Telecommunications Task Force comments at 13 (stating that section 254(h)(3) should not be read to produce such a result).

720. Consistent with our directives pertaining to support for schools and libraries and the Joint Board's recommendation, we require telecommunications carriers to carefully maintain complete records of how they allocate the costs of shared facilities among consortium participants in order to charge eligible health care providers the appropriate amounts. We emphasize that under such arrangements, the rural health care provider is eligible for reduced rates and the telecommunications carrier is eligible for support only on that portion of the services purchased and used by that eligible health care provider. We adopt the Joint Board's recommendation that these arrangements be subject to full disclosure requirements and closely scrutinized under an audit program.[1863] Carriers shall also be required to keep detailed records of services provided to rural health care providers. These records shall be maintained by carriers and shall be available for public inspection. The carriers must quantify and justify the amount of support for which members of consortia are eligible. Accordingly, a provider of telecommunications services to a health care provider participating in a consortium must establish the applicable rural rate for the health care provider's portion of the shared telecommunications services, as well as the relevant urban rate. Absent supporting documentation that quantifies and justifies the amount of universal service support requested by an eligible telecommunications carrier, the Administrator shall not allow that carrier to offset, or receive reimbursement for, the costs of providing services to rural health care providers participating in consortia.[1864]

721. Health care providers that belong to consortia that share facilities should maintain their own records of use, in addition to the records that service providers keep. Such records may be subject to an audit or examination by the Administrator or other state or federal agency with jurisdiction, as described below.[1865] Such monitoring should reduce the opportunity for fraud or misappropriation of universal service funds.

722. These requirements would not prevent state telecommunications agencies like DOAS-IT or urban based health care providers from aggregating demand and providing services to rural health care providers participating in consortia at volume discounted rates or from providing technical assistance, such as network management or centralized

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[1863] Recommended Decision, 12 FCC Rcd at 455.

[1864] For example, carriers can submit an itemized bill to the administrator which indicates what percentage or portion of the services provided to a consortium can be attributed to a particular health care provider eligible to receive supported services, along with the applicable rural and urban rates necessary to calculate the amount of support required.

[1865] *See infra* section XI.F.2.b.

administrative functions.[1866] We conclude that it is unlikely that any of the entities providing services under such an arrangement could be eligible for support under section 254(h)(1)(A), because rural health care providers obtaining services at prices averaged throughout the state are unlikely to be paying more than the urban rate. Therefore, unless telecommunications carriers can demonstrate to the Administrator that the average rate that members of a consortium pay is greater than the applicable urban rate, such carriers will not be able to receive universal service support under this provision. Health care providers participating in consortia that are not eligible to receive services supported under section 254(h)(1)(A) may be eligible to receive limited toll-free access to an Internet service provider, as described below.

723. Use of Multi-purpose Telecommunications Connections. To reduce costs to health care providers, we also encourage the use of shared lines. As Community Colleges explains, a health care provider may use a single line to provide multiple services, not all of which are eligible for support.[1867] An eligible health care provider, however, can be eligible for reduced rates, and the telecommunications carrier can be eligible for support, only on that portion of the telecommunications services purchased and used by the health care provider for an eligible purpose. For example, if a health care provider uses a supported T-1 line to send x-rays to a remote location and to provide adult literacy tutoring, the carrier providing those services could receive universal service support only for the portion of the service used for x-ray analysis, because adult literacy tutoring is not necessary for the provision of health care. We agree with Community Colleges that, in order to ensure that only eligible services receive support, single health care providers that use lines for several purposes must maintain records of use, which may be the subject of an audit by the Administrator or other state or federal agency with jurisdiction, as described below.[1868] Moreover, carriers must retain careful records regarding how they have allocated the costs of shared facilities. We expect the Administrator to work with rural health care providers to keep any record keeping requirements to a minimum consistent with the need to ensure the integrity of the program.

2. Bona Fide Requests

a. Background

724. Section 254(h)(1)(A) states that "[a] telecommunications carrier shall, upon receiving a *bona fide request*, provide telecommunications services which are necessary for

[1866] *See* Georgia Dept. of Admin. Services comments at 2-4; Georgia Dept. of Admin. Services reply comments at 31-32 (explaining that disaggregating rural from urban hospitals would reduce savings from volume discount).

[1867] *See* Community Colleges comments at 19.

[1868] *See* Community Colleges comments at 19.

the provision of health care services in a State."[1869]

725. The Joint Board recommended that every health care provider that makes a request for universal service supported telecommunications services be required to submit to the carrier a written request, signed by an authorized officer of the health care provider, certifying under oath to five specified items of information.[1870] The Joint Board concluded that the certification requirements address the portions of section 254(h) governing eligibility for and limiting use of supported services for health care providers.[1871] The Joint Board found such requirements to be the minimum certification necessary for adequate monitoring of compliance with section 254(h)(1)(A) and recommended that the certification be renewed annually.[1872] In addition, the Joint Board recommended that the Commission require the Administrator to establish and administer a monitoring and evaluation program to oversee the use of universal service supported services by health care providers and the pricing of those services by carriers.[1873] The Joint Board also recommended that the Commission encourage carriers across the country to notify eligible health care providers in their service areas of the availability of lower rates resulting from universal service support so that the goals of providing universal service support to rural health care providers will be more rapidly fulfilled.[1874]

b. Discussion

726. Certification Requirements. We adopt the Joint Board's recommendation, with modifications, to require every health care provider that requests universal service supported telecommunications services to submit to the carrier a written request, signed by an officer of the health care provider authorized to order telecommunications services, certifying under oath to the first five conditions detailed below in order to establish a bona fide request for services.[1875] We clarify, however, that a health care provider requesting services eligible for

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[1869] 47 U.S.C. § 254(h)(1)(A) (emphasis added).

[1870] *See* Recommended Decision, 12 FCC Rcd at 451.

[1871] *See* Recommended Decision, 12 FCC Rcd at 451.

[1872] *See* Recommended Decision, 12 FCC Rcd at 451.

[1873] *See* Recommended Decision, 12 FCC Rcd at 452.

[1874] *See* Recommended Decision, 12 FCC Rcd at 452.

[1875] Recommended Decision, 12 FCC Rcd at 451. As discussed above, a health care provider will certify to these same conditions when posting a request with the administrator to comply with the competitive bidding requirements. *See supra* section XI.D.3.

support under section 254(h)(2)(A) need not establish that it is located in a rural area but rather that it cannot obtain toll-free access to an Internet service provider, as discussed below. We also impose an additional condition: that the health care provider requesting telecommunications services certify that it is ordering the most cost-effective method(s) of providing the requested services. This is consistent with our requirement that health care providers seek to minimize the cost to the universal service support mechanisms by using a competitive bidding process to secure the most cost-effective service arrangement. We define the most cost-effective method of providing service as the method available at the lowest cost, after consideration of features, quality of transmission, reliability, and other factors that the health care provider deems relevant to choosing an adequate method of providing the required health care services.[1876] Consistent with the Joint Board's recommendation, we require health care providers to renew their certification annually. Health care providers are required to certify to the following conditions:

1) that the requester is a public or nonprofit entity that falls within one of the seven categories set forth in the definition of health care provider in section 254(h)(5)(B);[1877]
2) unless the requested service is supported under section 254(h)(2)(A), that the requester is physically located in a rural area (OMB defined non-metro county or Goldsmith-defined rural section of an OMB metro county);[1878] or, if the requested service is supported under section 254(h)(2)(A), that the requester cannot obtain toll-free access to an Internet service provider;
3) that the services requested will be used solely for purposes reasonably related to the provision of health care services or instruction that the health care provider is legally authorized to provide under the law of the state in which they are provided;[1879]
4) that the services will not be sold, resold, or transferred in

[1876] *See supra* section XI.D.3.b.

[1877] 47 U.S.C. § 254(h)(5)(B).

[1878] For a discussion of OMB metro and non-metro areas, Metropolitan Statistical Areas and the Goldsmith Modification, *see supra* section XI.C.1.b.

[1879] 47 U.S.C. § 254(h)(1)(A) (stating that "[a] telecommunications carrier shall, upon receiving a bona fide request, provide telecommunications services which are *necessary for the provision of health care services in a State*") (emphasis added).

consideration of money or any other thing of value;[1880]

5) if the services are being purchased as part of an aggregated purchase with other entities or individuals, the full details of any such arrangement governing the purchase, including the identities of all co-purchasers and the portion of the services being purchased by the health care provider;[1881]

6) that it is ordering the most cost-effective method(s) of providing the requested services.

727. Like the Joint Board, we find that these requirements, with the modifications noted, should sufficiently ensure that universal service support only goes to those health care providers Congress intended to support and, therefore, no additional requirements are necessary. While we recognize USTA's concern that some health care providers may not have the necessary internal connections or customer premises equipment to use the services requested,[1882] we are confident that those providers will seek and receive the assistance they need before they order services, so that they do not waste their own resources by paying even the significant urban rates for such services. Although we require schools and libraries to self-certify that they have developed technology plans, we note that, unlike health care providers, schools and libraries may receive discounts of up to 90 percent. Therefore, the need for safeguards against unnecessary purchases is greater for schools and libraries than for health care providers. We also reject BellSouth's suggestion that we impose further requirements, because we conclude that those we adopt, coupled with the fact that the health care provider must still pay urban rates for services covered by support mechanisms, should sufficiently deter frivolous and wasteful requests.[1883] We also decline Bell South's suggestion to require a provider to certify that a requested service is widely used in the state, as long as the service is "necessary for the provision of health care."[1884]

728. Compliance Review. We adopt the Joint Board's recommendation that we

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[1880] 47 U.S.C. § 254(h)(3).

[1881] 47 U.S.C. § 254(h)(3).

[1882] USTA comments at 40.

[1883] *See* BellSouth comments at 41 (suggesting that the Commission require each request to: include a clear and concise statement of the health care need to be satisfied by the service; demonstrate that the requested service is widely used by health care providers in the state; show a verifiable plan for use of the service pursuant to the requirements of the Act; and demonstrate that the requesting provider has the necessary equipment to use the requested service).

[1884] *See infra* section XI.B.3.

require the Administrator to establish and administer a monitoring and evaluation program to oversee the use of supported services by health care providers and the pricing of those services, and we adopt an approach consistent with the requirements for schools and libraries.[1885] Like the Joint Board, we conclude that a compliance program is necessary to ensure that services are being used for the provision of lawful health care, that requesters are complying with certification requirements, that requesters are otherwise eligible to receive universal service support, that rates charged comply with the statute and regulations, and that the prohibitions against resale or transfer for profit are strictly enforced.

729. Accordingly, we conclude that health care providers, as well as telecommunications carriers, should maintain the same kind of procurement records for purchases under this program as they now keep for other purchases. We conclude that health care providers must be able to produce these records at the request of any auditor appointed by the Administrator or any other state or federal agency with jurisdiction that might, for example, suspect fraud or other illegal conduct, or merely be conducting a routine, random audit. We further conclude that health care providers may be subject to random compliance audits by any auditor appointed by the Administrator or any other state or federal agency with jurisdiction to ensure that services are being used for the provision of state authorized health care, that requesting providers are complying with certification requirements, that requesting providers are otherwise eligible to receive supported services, that rates charged comply with the statute and regulations, and that the prohibitions against resale or transfer for profit are strictly enforced.[1886] The compliance audits will also be used to evaluate what services health care providers are purchasing, the costs of such services, and how such services are being used. Such information will permit the Commission to determine whether universal service support policies require adjustment.

730. The Administrator shall develop a method for obtaining information from health care providers on what services they are purchasing and how such services are being used and shall submit a report to the Commission on the first business day in May of each year. The Commission will use this report, in conjunction with any information provided by the Joint Working Group on Telemedicine, to monitor the progress of health care providers in obtaining access to telecommunications and other information services. From such monitoring activities, the Administrator should gather and report the following data: 1) the number and nature of requests for supported services submitted to the Administrator and posted by the Administrator; 2) the number and kinds of services requested; 3) the number, locations, and descriptions of health care providers requesting services; 4) the number and nature of the requests that are filled, delayed, partially filled, or unfilled, and the reasons therefore; 5) the number, nature, and descriptions of carriers offering to provide or providing

[1885] Recommended Decision, 12 FCC Rcd at 452.

[1886] *See* Recommended Decision, 12 FCC Rcd at 452.

supported services; 6) the requested services that are found ineligible for support; 7) the rates, prices, and charges for services, including the submissions of proposed urban and rural rates for each service; and 8) the number and nature of rate submissions to state commissions and the Commission.

731. Carrier Notification. We also adopt the Joint Board's recommendation to encourage carriers across the country to notify all health care providers in their service areas of the availability of lower rates resulting from universal service support so that eligible health care providers can take full advantage of the supported services.[1887] We expect that carriers will market to health care providers. As with schools and libraries, however, we decline to impose a requirement that carriers notify health care providers about the availability of supported services.[1888] We note that many representatives of health care providers are participating in this proceeding, and we believe that these associations will inform their members of the opportunity to secure services under this program. As with schools and libraries, we encourage these groups to do so through such means as trade publications, websites, and conventions.

3. Selecting Between Offset or Reimbursement for Telecommunications Carriers

a. Background

732. Section 254(h)(1)(A) states that a telecommunications carrier that provides designated services to rural health care providers "shall be entitled to have an amount equal to the difference, if any, between the rates for services provided to health care providers for rural areas in a State and the rates for similar services provided to other customers in comparable rural areas in that State treated as a service obligation as a part of its obligation to participate in the mechanisms to preserve and advance universal service."[1889] This language differs from that of section 254(h)(1)(B), pertaining to schools and libraries, which explicitly permits telecommunications carriers providing designated services to schools and libraries to be reimbursed for services, either through an offset to their obligation to contribute to universal service support, or through reimbursement drawn from universal service support mechanisms.[1890]

[1887] Recommended Decision, 12 FCC Rcd at 453.

[1888] *See supra* section X.D.2.

[1889] 47 U.S.C. § 254(h)(1)(A).

[1890] 47 U.S.C. § 254(h)(1)(B).

733. The Joint Board recommended that the Commission allow telecommunications carriers providing services to health care providers under the provisions of section 254(h)(1)(A) to offset the amount eligible for support against the carrier's universal service support obligation.[1891] The Joint Board recommended that the Commission disallow the option of direct reimbursement, although the Joint Board recognized that this alternative is within the Commission's authority.[1892] Acknowledging that the total of a carrier's rate reductions may exceed its universal service obligation in any one year, the Joint Board recommended that carriers be allowed to carry offset balances forward to future years, so that the full amounts eligible to be treated as a credit may be applied to reduce their future universal service obligation.[1893]

b. Discussion

734. Subject to the limitations on services previously described, a telecommunications carrier shall receive support for providing an eligible telecommunications service under section 254(h)(1)(A) equal to the difference, if any, between the rural rate and the urban rate charged for the service, as defined above. A telecommunications carrier shall also receive support for providing services under section 254(h)(2)(A), as set forth below. With modifications, we adopt the Joint Board's recommendation that we require carriers to receive this support through offsets to the amount they would otherwise have to contribute to federal universal service support mechanisms, rather than through direct reimbursement. Although we reject NYNEX's conclusion that the statute precludes a mandatory offset rule,[1894] we conclude that allowing direct compensation under some circumstances is consistent with both the statutory language and sound public policy. We conclude that a telecommunications carrier providing eligible services to rural health care providers at reasonably comparable rates under the provisions of section 254(h)(1)(A) should treat the amount eligible for support as an offset against the carrier's universal service support obligation for the year in which the costs were incurred. To the extent that the amount of universal service support owed a carrier exceeds that carrier's universal service obligation, calculated on an annual basis, the carrier may receive a direct reimbursement in the amount of the difference, as the majority of the state members of the Joint Board recommend.[1895] Any reimbursement due a carrier will be

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[1891] Recommended Decision, 12 FCC Rcd at 446.

[1892] Recommended Decision, 12 FCC Rcd at 446.

[1893] Recommended Decision, 12 FCC Rcd at 446.

[1894] We note that NYNEX relies on the language of section 254(h)(1)(B), which, as the heading indicates, governs schools and libraries, not health care providers.

[1895] State Health Care Report at 5. *Compare* State Health Care Report, Separate Statement of Commissioner Laska Schoenfelder (dissenting in part), at 7.

made after the offset is credited against that carrier's universal service obligation, but in any event, no later than the first quarter of the calendar year following the year in which the costs for services were incurred.

735. Such an approach is consistent with the statutory language of section 254, which provides generally that a telecommunications carrier may treat the support to which it is entitled under section 254(h)(1)(A) "as a service obligation as a part of its obligation to participate in the mechanisms to preserve and advance universal service."[1896] The statutory provision does not address the specific mechanism for recovery of support but merely indicates that some method of recovery is warranted. In this regard, the language of section 254(h)(1)(A) is general and does not use specific recovery language such as "reimbursement" or "offset," unlike its counterpart for schools, section 254(h)(1)(B), which specifies the manner of recovery. Specifically, section 254(h)(1)(B) provides that a carrier shall have "an amount equal to the amount of the discount treated as an *offset* to its obligation to contribute to the mechanisms to preserve and advance universal service" or "*receive reimbursement* utilizing the support mechanisms to preserve and advance universal service."[1897] Thus, where Congress intended to specify the manner of recovery, it has shown that it will do so. Had Congress intended to allow only for an offset, it could have used the word "offset" as it did in section 254(h)(1)(B). Accordingly, we agree with the Joint Board's conclusion that the Commission has the authority to allow direct reimbursement.[1898]

736. The approach we adopt also should address the potential problem that the Joint Board recognized arises when the total of a carrier's rate reductions exceeds its universal service obligation in any one year.[1899] Moreover, allowing carriers to receive direct reimbursements should help ensure that they have resources adequate to cover the costs of providing supported services. As Alaska PSC suggests, some small carriers would find it particularly difficult to bear such costs absent prompt reimbursement.[1900] Pursuant to the adopted approach, those small carriers that do not contribute to universal service support mechanisms because they qualify for the *de minimis* exemption may receive direct reimbursement as well. Because such carriers must receive reimbursment no later than the first quarter of the calendar year following the year in which the costs for services were incurred, the carriers will never have to wait more than fifteen months to receive payment, an amount of time that we believe is reasonable given the associated administrative burdens on

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[1896] 47 U.S.C. § 254(h)(1)(A).

[1897] *See* 47 U.S.C. § 254(h)(1)(B) (emphasis added).

[1898] Recommended Decision, 12 FCC Rcd at 446.

[1899] Recommended Decision, 12 FCC Rcd at 446.

[1900] *See* Alaska PSC comments at 3-4.

the Administrator.

737. We agree with the Joint Board that "an offset mechanism is both less vulnerable to manipulation and more easily administered and monitored" than direct reimbursement.[1901] We find, however, that the approach we adopt reasonably balances the concerns of carriers with rate reductions exceeding their contributions in a given year against the need for a reimbursement method that may be easily administered and monitored.

G. Advanced Telecommunications and Information Services

1. Background

738. Section 254(h)(2) directs the Commission to establish "competitively neutral rules to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit . . . health care providers."[1902] Section 254(h)(2) also directs the Commission to "define the circumstances under which a telecommunications carrier may be required to connect its network to such public institutional telecommunications users."[1903] The statute does not define the term "advanced telecommunications services." "Information services" is defined as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications."[1904]

739. The Joint Explanatory Statement provides the following explanation with respect to "advanced telecommunications services:"

> New subsection (h)(2) requires the Commission to establish rules to enhance the availability of advanced telecommunications and information services to public institutional telecommunications users. For example, the Commission could determine that telecommunications and information services that constitute universal service for classrooms and libraries shall include dedicated data links and the ability to obtain access to educational materials, research information, statistics, information on Government services, reports developed by Federal, State, and

[1901] Recommended Decision, 12 FCC Rcd at 446.

[1902] 47 U.S.C. § 254(h)(2)(A).

[1903] 47 U.S.C. § 254(h)(2)(B).

[1904] 47 U.S.C. § 153(20).

local governments, and information services which can be carried over the Internet.[1905]

740. The Joint Board concluded that the Commission's adoption of rules providing universal service support pursuant to section 254(h)(1) will significantly increase the availability and deployment of telecommunications services for rural health care providers. Moreover, the Joint Board concluded that the Commission's additional actions, pursuant to the other provisions of section 254, will be sufficient to ensure the enhancement of access to advanced telecommunications and information services for both rural and other health care providers. Furthermore, the Joint Board noted that the class of users who may benefit from the implementation of section 254(h)(2)(A) includes all public and non-profit health care providers.[1906]

741. The Joint Board declined to make a recommendation regarding toll-free Internet access but recommended that the Commission seek information on the costs likely to be incurred in providing toll-free access to an Internet service provider for rural health care providers.[1907]

2. Discussion

742. We agree with the Joint Board's conclusion that the rules we establish for the provision of universal service support pursuant to section 254(h)(1)(A) should significantly increase the availability and deployment of telecommunications services for rural health care providers.[1908] Moreover, like the Joint Board, we find that the additional support mechanisms adopted in this proceeding, for example, those adopted for high cost areas, also should enhance access to advanced telecommunications and information services for these and other health care providers.[1909] We agree with the Joint Board that the provision of universal service support will stimulate the demand for telecommunications, so that market forces should encourage telecommunications carriers to deploy the facilities needed to enhance access to advanced services.[1910]

743. Nonetheless, we provide additional support under section 254(h)(2)(A) "to

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[1905] Joint Explanatory Statement at 133.

[1906] Recommended Decision, 12 FCC Rcd at 457.

[1907] Recommended Decision, 12 FCC Rcd. at 427.

[1908] Recommended Decision, 12 FCC Rcd at 457.

[1909] Recommended Decision, 12 FCC Rcd at 462.

[1910] *See* Recommended Decision, 12 FCC Rcd at 462; USTA comments at 41.

enhance . . . access to advanced telecommunications and information services for all public and nonprofit . . . health care providers."[1911] For the reasons discussed below, we will provide universal service support for a limited amount of toll-free access to an Internet service provider. Although the Joint Board did not explicitly recommend supporting toll charges imposed for connecting with an Internet service provider under section 254(h)(2)(A), it did recommend that the Commission seek comment and further information on the need for and costs of providing advanced telecommunications and information services for rural health care providers.[1912] In providing support for a limited amount of toll-free Internet access under section 254(h)(2)(A), we agree with the Joint Board's conclusion that all public and non-profit health care providers shall benefit from the implementation of section 254(h)(2)(A).[1913] This conclusion is consistent with the plain language and purpose of section 254(h)(2).

744. Toll-free Access to an Internet Service Provider. As discussed above, we agree with the Joint Board that securing access to the Internet may be a more cost-effective method of meeting some telemedicine needs than relying on other kinds of telecommunications services.[1914] We also agree with those commenters that suggest that toll-free access to an Internet service provider is important to provide cost-effective access to and use of numerous sources of medical information and to facilitate the flow of health care-related information.[1915]

745. We agree with the majority of the state members of the Joint Board that the major cost for rural health care providers seeking access to an Internet service provider is toll charges incurred by providers who lack local dial-up access.[1916] Accordingly, we conclude that each health care provider that cannot obtain toll-free access to an Internet service provider is entitled to receive a limited amount of toll-free access. Upon submitting a request

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[1911] 47 U.S.C. § 254(h)(2)(A).

[1912] Recommended Decision, 12 FCC Rcd at 427.

[1913] Recommended Decision, 12 FCC Rcd at 457.

[1914] Recommended Decision, 12 FCC Rcd at 427.

[1915] *See, e.g.,* AAMC comments at 1-2; AHA comments at 1; Alaska Telemedicine Project reply comments at 7; American Telemedicine comments at 4; APHA comments at 1, 3-5; HHS comments at 2; Nebraska Hospitals comments at 1; NTIA reply comments at 29; Scott & White reply comments at 1; State Health Care Report at 3 (stating that the major cost difference lies in the toll charges incurred by health care providers who do not have local dial up access to the Internet). *See also* Joint Agency Apr. 28 *ex parte* at 2.

[1916] *See* State Health Care Report at 3; Joint Agency Apr. 28 *ex parte* at 2 (stating that "urban health care providers typically do not have to pay long distance rates or per-minute charges to connect to Internet Service Providers, while rural users frequently do," and stating further that "eligible rural health care providers should be exempted from these long distance and per-minute charges").

to a telecommunications carrier,[1917] each such health care provider may receive the lesser of the toll charges incurred for 30 hours of access to an Internet service provider or $180.00 per month in toll charge credits for toll charges imposed for connecting to an Internet service provider.[1918] We clarify that such support will fund toll charges but not distance-sensitive charges for a dedicated connection to an Internet service provider.

746. Like the majority of the state members of the Joint Board,[1919] we believe that a dollar cap on support for toll-free Internet access is consistent with the Joint Board's objective to develop a cost-effective program.[1920] We agree with Nebraska Hospitals that approximately $180.00 of support for each eligible health care provider, each month, is a reasonable amount of access to support and should create sufficient mechanisms. While Nebraska Hospitals proposed support for 15 hours of access at $.20 per minute, we adopt a dollar cap based on 30 hours of use at a $.10 per minute toll charge. We find that this dollar cap per provider on support for toll-free access to an Internet service provider is a specific, sufficient, and predictable mechanism, as required by section 254(b)(5) of the Act, because it limits the amount of support that each health care provider may receive per month to a reasonable level. This limit should also cause support for toll-free access to an Internet service provider not to increase the size of the fund significantly.[1921]

747. We conclude that this mechanism is consistent with the recommendation of the majority of the state members of the Joint Board who "only support funding the toll charges for one access line to the Internet for a rural health care provider if all other options for affordable Internet access have been exhausted,"[1922] because such support shall only be available until toll-free access becomes available to the community in which the health care provider is located. Moreover, support shall be provided only if the health care provider uses

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[1917] *See supra* section XI.B.2 (stating that non-telecommunications carriers are eligible to provide services under section 254(h)(2)).

[1918] *See* Nebraska Hospitals comments at 2 (suggesting that the lowest cost way to assure toll-free Internet access may be to subsidize the local phone companies for an average of 15 hours access, per hospital, per month, at a rate of $.20 per minute and estimating that the cost of such a subsidy would be approximately $3,240.00 per month).

[1919] State Health Care Report at 4; *compare* State Health Care Report, Separate Statement of Commissioner Laska Schoenfelder at 6-7 (dissenting in part to the State Members Report) (stating that toll-free access is not economically reasonable).

[1920] Recommended Decision, 12 FCC Rcd at 427.

[1921] *See* AT&T reply comments at 20.

[1922] *See* State Health Care Report at 3.

the most cost-effective service, as defined in this section.[1923]

748. We conclude that these support mechanisms will enhance access to advanced telecommunications and information services for all public and nonprofit health care providers in a competitively neutral, technically feasible, and economically reasonable way, consistent with the language of section 254(h)(2)(A).[1924] We conclude that these support mechanisms are competitively neutral, because, as with schools and libraries, health care providers may request wireline or wireless telecommunications links -- including cellular and satellite -- at local calling rates to obtain access to an Internet service provider.[1925] Moreover, the limits on the number of hours and the dollar cap per provider create economically reasonable mechanisms. As several commenters indicate, Internet service providers are proliferating rapidly, and the competitive marketplace soon should eliminate the need for such support.[1926] Contrary to the suggestion of some commenters, including the state members of the Joint Board, we find that providing such support will neither reduce nor distort Internet service providers' incentives to build their own facilities in rural markets.[1927] Rural health care providers are only a fraction of the rural customers Internet service providers could serve. Therefore, competitors will still have incentives to enter the market to compete for eligible health care providers, as well as the larger group of other rural customers including schools and libraries.[1928]

749. We recognize that some commenters propose facilitating Internet access in other ways, including auctions for the establishment of local Internet "points of presence" throughout the country, the creation of special 800-number Internet access, and the development of special incentives to ILECs that might include exemption from current restrictions on providing interLATA services.[1929] We decline to adopt any of these proposals at this time due to the limited information available and their potential complexity.

[1923] *See* State Health Care Report at 3.

[1924] *See* 47 U.S.C. § 254(h)(2)(A).

[1925] *See* American Telemedicine comments at 4-5.

[1926] *See* Georgia PSC reply comments at 30; SBC comments at 10.

[1927] *See* BellSouth comments at 44; Georgia PSC reply comments at 30; SBC comments at 10. *See also* State Health Care Report at 4 (stating its concern that this support program not create artificial disincentives for economic network construction to meet demand for local dial-up access to the Internet).

[1928] *See* State Health Care Report at 4 (expressing concerns that supporting toll-free Internet access could discourage aggregation of demand in rural communities).

[1929] *See, e.g.,* American Telemedicine comments at 4-5; Wyoming PSC comments at 13.

XII. INTERSTATE SUBSCRIBER LINE CHARGES AND CARRIER COMMON LINE CHARGES

A. Overview

750. The Act mandates that universal service support should be explicit[1930] and requires that such support be recovered on an equitable and non-discriminatory basis from all providers of interstate telecommunications services.[1931] Consistent with our plan to make support mechanisms explicit, we begin here to take steps towards reforming the existing mechanisms for the recovery of subscriber loop costs[1932] -- the subscriber line charge (SLC) and the residual carrier common line (CCL) charges, which include long term support (LTS) payments -- to make them consistent with universal service goals and the development of competitive telecommunications markets. We take other, related steps in the companion access charge reform docket, and expect to revisit issues related to loop cost recovery in light of further recommendations from the Joint Board in this proceeding and the Separations Joint Board.

751. We agree with the Joint Board that the existing LTS payment structure is inconsistent with the Act because contributions to universal service must be equitable and non-discriminatory, and available to all eligible telecommunications carriers. We therefore concur with the Joint Board's conclusion that LTS should be removed from the interstate access charge system. We provide, instead, for recovery of comparable payments, on a per-line basis, from the new federal universal service support mechanisms. These payments will also be available to eligible competing LECs for each customer won from ILECs that are currently receiving support.

752. We adopt the Joint Board's recommendation, based on concerns about affordability, not to raise the SLC cap for primary residential and single-line business lines (currently $3.50). Our pending access charge reform proceeding addresses the SLC cap for other lines and changes to the CCL charge structure.

[1930] 47 U.S.C. § 254(e).

[1931] 47 U.S.C. § 254(d).

[1932] "Subscriber loops" or "loops" are the connection between the telephone company's central office and the customer's premises. In the *Local Competition Order*, the Commission defined the loop, for unbundling purposes, as "a transmission facility between a distribution frame, or its equivalent, in an ILEC central office, and the network interface device at the customer premises." *Local Competition Order*, 11 FCC Rcd at 15691. Currently, 25 percent of the total cost of each ILEC loop is allocated to the interstate jurisdiction, 47 C.F.R. § 36.154(c), although interstate traffic actually accounts for only about 15 percent of loop usage. *See 1996 Monitoring Report* at tbl 4.7.

B. LTS Payments

1. Background

753. Section 254(b)(4) establishes the universal service principle that "[a]ll providers of telecommunications services should make an equitable and nondiscriminatory contribution to the preservation and advancement of universal service." Section 254(d) requires that "[e]very telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service." Section 254(e) further specifies that any universal service support "should be explicit," and the Joint Explanatory Statement indicates that the requirement that support be explicit serves the "conferees' intent that all universal service support should be clearly identified."[1933]

754. Currently, the Commission's separations rules assign 25 percent of ILECs' loop costs to the interstate jurisdiction,[1934] which ILECs recover, pursuant to the Commission's rules, through SLCs and CCL charges.[1935] Formerly, all ILECs had to pool their interstate loop costs to set a uniform, nationwide CCL charge.[1936] When individual ILECs were allowed to leave the pool in 1989, departing carriers were required to pay LTS to prevent the CCL charges of small, higher-cost ILECs that remained in the pool from rising significantly above the national average. The ILECs that make LTS payments (i.e., the larger, lower-cost ILECs that have left the pool since 1989) contribute to LTS and recover the revenue for their

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[1933] Joint Explanatory Statement at 131.

[1934] 47 C.F.R. § 36.154(c). The jurisdictional separations process divides between the state and federal jurisdictions the costs of those portions of the ILECs' telephone plant that are used for both interstate and intrastate services. Each jurisdiction then specifies how rate-regulated ILECs may recover the costs assigned to that jurisdiction. The Commission recently held a meeting of the Separations Joint Board to hear testimony and discuss whether the Commission's jurisdictional separations rules should be reformed. *See* Meeting of the Federal-State Joint Board on Separations, CC Docket No. 80-286 (February 27, 1997).

[1935] ILECs recover their interstate-allocated loop costs through the combination of the SLC and the CCL charge. The SLC is a flat, monthly charge that ILECs assess directly on end users of telecommunications services. The CCL charge is a per-minute charge that ILECs assess on IXCs. Both SLCs and CCL charges are part of the Commissions interstate access charge structure, which we are reforming in our companion *Access Charge Reform Order.*

[1936] *See* NPRM at para. 115. NECA administers the national loop-cost pool, and files a CCL tariff for pool participants.

payments by increasing their own CCL charges.[1937]

755. The Joint Board agreed with the NPRM's tentative conclusion that the existing LTS system constitutes an impermissible universal service support mechanism. The Joint Board concluded that the current LTS system is a universal service support mechanism that is inconsistent with section 254(d)'s requirement that universal service be collected on a non-discriminatory basis from all providers of interstate telecommunications services.[1938] Accordingly, the Joint Board recommended that LTS payments be removed from the access charge regime and that rural LECs currently receiving LTS payments should instead receive comparable payments from the new universal service support mechanisms.[1939]

2. Discussion

756. We agree with the Joint Board and commenters that LTS payments constitute a universal service support mechanism.[1940] LTS payments reduce the access charges of small, rural ILECs participating in the loop-cost pool by raising the access charges of non-participating ILECs. Like the Joint Board, we conclude that this support mechanism is inconsistent with the Act's requirements that support be collected from all providers of interstate telecommunications services on a non-discriminatory basis[1941] and be available to all eligible telecommunications carriers.[1942] Currently, only ILECs participating in the NECA CCL tariff receive LTS support and only ILECs that do not participate in the NECA CCL tariff make LTS payments.[1943] We further conclude that the Joint Board correctly rejected some commenters' argument that the Act only requires *new* universal service support

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[1937] *See id.* Formerly, CCL charges also recovered ILEC pay telephone costs. The Commission, pursuant to section 276, recently directed ILECs to remove these costs from their CCL charges. *See* Pay Telephone Reclassification Provisions of the Telecommunications Act of 1996, *Report and Order*, CC Docket No. 96-128, FCC 96-388 (rel. Sept. 20, 1996), Order on Reconsideration, FCC 96-439 (rel. Nov. 8, 1996) (*Pay Telephone Order*).

[1938] Recommended Decision, 12 FCC Rcd at 471.

[1939] Recommended Decision, 12 FCC Rcd at 471.

[1940] *See* Recommended Decision, 12 FCC Rcd at 471. *See also* Ad Hoc comments at 28; Ameritech comments at 15; Bell Atlantic comments at 22.

[1941] 47 U.S.C. § 254(d).

[1942] *See* 47 U.S.C. § 254(e). *See also supra* section III (adopting the universal service principle of competitive neutrality).

[1943] *See* 47 C.F.R. § 69.105(b)(3) - (4).

mechanisms to comply with section 254.[1944] We find that Congress also intended that we reform existing support mechanisms, such as LTS, if necessary.[1945] We therefore adopt the Joint Board's recommendation that LTS should be removed from access charges.

757. Although we conclude that the recovery of LTS revenue through access charges represents an impermissibly discriminatory universal service support mechanism, we agree with the Joint Board that LTS payments serve the public interest by reducing the amount of loop cost that high cost LECs must recover from IXCs through CCL charges and thereby facilitating interexchange service in high cost areas consistent with the express goals of section 254. Thus, although we remove the LTS system from the access charge regime, we adopt the Joint Board's recommendation that we enable rural LECs to continue to receive payments comparable to LTS[1946] from the new universal service support mechanisms as described more fully in section VII, above.

758. We find it unnecessary to alter our universal service contribution mechanisms to account for the observation that current LTS recipients would, under the support mechanisms that we adopt today, also contribute to those mechanisms.[1947] Congress provided that all telecommunications carriers providing interstate services should contribute to universal service support mechanisms.[1948] This contribution methodology will require contributions from current recipients of all carrier-based support programs, including high cost support and surrogate DEM weighting support.[1949] We discuss the recovery of universal service contributions in greater detail below.[1950]

759. Because we expect to make other changes to our Part 69 rules in our pending access charge reform proceeding, we will promulgate the rules to effectuate the removal of

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[1944] Recommended Decision, 12 FCC Rcd at 471.

[1945] *See* Recommended Decision, 12 FCC Rcd at 471.

[1946] As discussed *supra* in section VII, such payments will be computed on a per-line basis for each ILEC currently receiving LTS, based on a the LTS payments that carrier has received over a period prior to the release of this Order. Such payments will be paid to any eligible telecommunications carrier, on a per-line basis, so that as competitors win the ILEC's subscribers they too will receive such payments.

[1947] *See* Puerto Rico Tel. Co. comments at 11.

[1948] 47 U.S.C. § 254(d).

[1949] *See supra* section VII.

[1950] *See infra* section XIII.

LTS contributions from CCL charges as part of those broader changes.[1951]

C. SLC Caps

1. Background

760. Currently, ILECs recover the portion of subscriber loop costs assigned to the interstate jurisdiction through a combination of the SLC and CCL charges. The Separations Joint Board recently met to begin reviewing and adapting the separations process to a competitive environment.[1952] At present, the SLC is capped at $3.50 per month for residential and single-line business customers and $6.00 per month for multi-line business customers.[1953] Section 254(b)(1) establishes the principle that universal service should be available at affordable rates, and section 254(i) directs the Commission and the states to ensure that universal service is available at affordable rates.

761. The Joint Board found that the level of the SLC cap affects affordability.[1954] The Joint Board therefore recommended that there be no change in the current $3.50 SLC cap for primary residential lines and single-line business lines,[1955] unless the Commission concludes that interstate carriers should contribute to the new federal universal service support mechanisms based on their intrastate as well as their interstate revenue. The Joint Board recommended, however, that if the Commission concludes that interstate carriers should contribute to the new federal universal service support mechanisms for rural, insular, and high cost areas based on their intrastate as well as their interstate revenue, the Commission should reduce the SLC to reflect the collection of LTS and pay telephone revenues from other sources.[1956] The Joint Board found that, if universal service assessments are based on all telecommunications revenues regardless of jurisdictional classification, the benefits of the recovery of LTS and pay telephone revenues from other sources should be shared equally between local customers, on the one hand, and long distance customers, on the other.

2. Discussion

[1951] *See Access Charge Reform Order* at section VI.D.

[1952] Commission Announces Meeting of Federal-State Board on Separations, *Public Notice*, CC Docket No. 80-286 (rel. Feb. 1997).

[1953] 47 C.F.R. §§ 69.104, 69.203.

[1954] Recommended Decision, 12 FCC Rcd at 472.

[1955] Recommended Decision, 12 FCC Rcd at 472.

[1956] Recommended Decision, 12 FCC Rcd at 473.

762. We agree with the Joint Board's conclusions that current rates generally are affordable, and that the level of the SLC cap implicates affordability concerns.[1957] We also concur with the Joint Board that determination of the proper level of the SLC cap depends upon a number of interdependent factors.[1958] The affordability of rates in coming years will be affected by future Joint Board recommendations and Commission action in this proceeding. The SLC also is part of the interstate access charge system, which we are currently reviewing in the companion access charge reform docket. As part of the recovery mechanism for interstate-allocated loop costs, the SLC cap also may be affected by the Separations Joint Board's recommendations. We therefore conclude that it would be inappropriate to make significant changes to the SLC cap for primary residential and single line business lines at this time. In light of these considerations, we adopt the Joint Board's recommendation that the SLC cap for primary residential and single-line business lines should remain unchanged.[1959]

763. We acknowledge some commenters' arguments that a higher SLC might be a more economically efficient loop cost recovery mechanism. We conclude, however, that it would be inappropriate to make significant changes to SLC levels for primary residential and single-line business lines in light of the significant changes that are still underway in the federal universal service support system, the structure of our access charge regime, and possible future changes to the separations process. We also concur with the Joint Board that, particularly in light of these other factors, concern about affordability prevents us from increasing the SLC for primary residential and single-line business lines at this time. We also observe that the development of local competition will provide a market-based discipline on such end-user charges.

764. Despite the views of some commenters, we do not believe that our decision not to raise the SLC cap for primary residential and single-line business lines will necessarily perpetuate or exacerbate existing implicit subsidies. Lower SLCs result in a greater percentage of common line costs being recovered through the CCL charge. As long as CCL charges do not contain implicit subsidies, the recovery of costs through the CCL charge should not perpetuate or exacerbate implicit subsidies. In this proceeding, we have removed LTS, an existing implicit subsidy flow, from the CCL charge, and in the next section we address our efforts in our access charge reform proceeding to correct the economic inefficiencies resulting from the current usage-sensitive nature of the CCL charge.

765. We also decline to adopt Richard Roth's suggestion that we abolish the SLC to make telephone service more affordable for low-income consumers, because we have

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[1957] Recommended Decision, 12 FCC Rcd at 473.

[1958] Recommended Decision, 12 FCC Rcd at 472-73.

[1959] Recommended Decision, 12 FCC Rcd at 472-73.

addressed the needs of low-income consumers through expansion of our Lifeline and Link Up programs in section VIII, above. Our current Lifeline program waives the entire SLC for qualifying low-income consumers, and in this Order we have increased Lifeline support and extended such support to all such low-income consumers.[1960] Thus, our actions today will reach the result Roth seeks for low-income consumers, while maintaining more economically efficient recovery of NTS loop costs.

766. The Joint Board made no recommendation with respect to the SLC caps for lines other than primary residential and single-line business lines.[1961] Because the SLC is an interstate charge prescribed in Part 69 of the Commission's rules, we consider the SLC cap for those lines in our concurrent proceeding to reform our Part 69 rules.[1962]

D. CCL Charges

1. Background

767. The Joint Board made no formal recommendation regarding the CCL charge and reached no conclusion as to whether the CCL charge represents an impermissible universal service support flow.[1963] The Joint Board suggested, however, that the Commission consider more efficient loop-cost recovery mechanisms, such as a flat, per-line charge assessed on the presubscribed interexchange carrier (PIC)[1964] or, if the end user declines to select a PIC, on the end user.[1965]

2. Discussion

768. In our *Access Charge Reform Order*, which we also adopt today, the Commission adopts the Joint Board's suggestion that the CCL charge should be recovered in a more efficient manner.[1966] Specifically, in the *Access Charge Reform Order*, we create and

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[1960] *See supra* section VIII.

[1961] *See* Recommended Decision, 12 FCC Rcd at 473.

[1962] *See Access Charge Reform Order* at section III.A.

[1963] Recommended Decision, 12 FCC Rcd at 474.

[1964] The PIC is the IXC that the customer has selected to carry 1+ long distance calls that are made from the customer's line.

[1965] Recommended Decision, 12 FCC Rcd at 474.

[1966] *Access Charge Reform Order* at section III.A.

implement a system of flat, per-line charges on the PIC.[1967] Where an end user declines to select a PIC, we adopt the Joint Board's suggestion that the PIC charge be assessed on the end user.[1968] As more fully described in our *Access Charge Reform Order*, we contemplate that, over time, all implicit subsidies will be removed from these flat-rate charges and that any universal service costs will be borne explicitly by our universal service support mechanisms.[1969]

E. Replacement of LTS

769. As we have stated, rural carriers' LTS payments will be replaced with comparable, per-line payments from the new universal service support mechanisms on January 1, 1998.[1970] Because current LTS payments will cease on that date, our rules must be modified so that ILECs that currently contribute to LTS also will stop making LTS payments on that date. LTS contributors currently recover the revenue necessary for their LTS contributions through their own CCL charges. Because current LTS contributors will no longer be making such contributions after January 1, 1998,[1971] their CCL charges should be adjusted to account for this change. If we did not adjust CCL charges to reflect the elimination of LTS payment obligations, ILECs would recover funds through their access charges for which they incurred no corresponding cost; the result would be an inappropriate transfer of funds from IXCs or their customers to ILECs.

770. We requested comment in the access charge reform proceeding on how to effectuate these changes.[1972] In the companion *Access Charge Reform Order*, we are effectuating the necessary changes to ILECs' CCL charges to account for the elimination of LTS contributions.

771. We also observe that the replacement of LTS with per-line support from the

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[1967] *Access Charge Reform Order* at section III.A.

[1968] *Access Charge Reform Order* at section III.A.

[1969] *Access Charge Reform Order* at sections III.A., IV.A.

[1970] *See supra* section VII.

[1971] If current LTS contributors provide interstate telecommunications services, they are obligated to contribute to universal service support mechanisms. 47 U.S.C. § 254(d). The per-line support that will replace LTS for rural carriers will come from these mechanisms. Thus, although current LTS contributors may continue to contribute to the mechanisms from which this support is provided, their contributions will be diluted substantially by the broader base of contributors to the new mechanisms. *See supra* section XIII.

[1972] *See Access Reform NPRM.*

new universal service support mechanisms will affect our current rule that sets the NECA CCL tariff at the average of price-cap LECs' CCL charges, as our rules currently provide.[1973] The elimination of price-cap ILECs' LTS obligations will allow their CCL charges to fall, but there is no corresponding reason for a reduction in the NECA CCL tariff. Yet under our current rules, the NECA CCL charge would fall simply because of our regulatory changes to price-cap ILECs' LTS payment obligations. We must therefore establish a new method to set the NECA CCL tariff. We address this question, too, in the access charge reform proceeding.

[1973] *See* 47 C.F.R. § 69.105(b)(2).

XIII. ADMINISTRATION OF SUPPORT MECHANISMS

A. Overview

772. Consistent with the Joint Board's recommendation, we conclude that all telecommunications carriers that provide interstate telecommunications services and certain other providers of interstate telecommunications must contribute to universal service support. As we determine what funds are needed to support all of Congress's universal service goals, we must also determine the amount of contribution to be assessed and collected from each carrier. We adopt the Joint Board's recommendation that a carrier's contribution to support for eligible schools, libraries, and health care providers be assessed based on contributors' interstate and intrastate telecommunications revenues. We modify slightly, however, the Joint Board's recommendation by assessing contributions on the basis of end-user telecommunications revenues.[1974] Because the Joint Board did not recommend an interstate and intrastate assessment base for high cost and low-income programs, for now we will assess the support for these programs solely from contributors' interstate end-user telecommunications revenues.

773. The Joint Board made no recommendations as to how carriers may recover universal service contributions. We determine today that we will permit recovery of universal service contributions through the contributing carrier's interstate rates. For ILECs subject to price caps, we will permit universal service contributions to be added to the carrier's common line basket, and recovered in the same manner as common line charges.[1975]

774. We adopt the Joint Board's recommendation that the administrator of the universal service support mechanisms should exempt from contribution and reporting requirements those carriers for which the cost of collection exceeds the amount of the contribution. We also agree with the Joint Board that we should appoint an independent, neutral third party as the permanent administrator of the support mechanisms, following a recommendation by a Federal Advisory Committee.

B. Mandatory Contributors to the Support Mechanisms

1. Background

775. Section 254(d) mandates that "[e]very telecommunications carrier that provides

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[1974] We note that State Commissioners McClure and Schoenfelder disagreed with the Joint Board's recommendation to assess contributions for the programs for eligible schools, libraries, and rural health care providers on interstate and intrastate telecommunications revenues. The vote on this issue was 6-2.

[1975] *See Access Charge Reform Order* at section VI.D.2.b.

interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service."[1976] The statute defines the term "telecommunications carrier" as "any provider of telecommunications services,"[1977] and the term "telecommunications service" as "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used."[1978] In addition, the Act defines "telecommunications" as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[1979] In the NPRM, the Commission sought comments discussing which service providers would fall within the scope of the term "telecommunications carrier" and, among those, which would be required to contribute to the federal support mechanisms.[1980]

776. In the Recommended Decision, the Joint Board recommended that the Commission require any entity that provides interstate telecommunications for a fee to the public or to such classes of users as to be effectively available to the public to contribute to the support mechanism.[1981] The Joint Board recommended that information and enhanced service providers not be required to contribute to the support mechanism.[1982] Finally, the Joint Board stated that section 332(c)(3)[1983] does not preclude a state from requiring all CMRS providers operating within its borders to contribute to state support mechanisms.[1984]

[1976] 47 U.S.C. § 254(d).

[1977] The Act specifically exempts aggregators of telecommunications services (as defined in section 226) from the definition of "telecommunications carrier." 47 U.S.C. § 153(44).

[1978] 47 U.S.C. § 153(46).

[1979] 47 U.S.C. § 153(43).

[1980] NPRM at para. 119.

[1981] Recommended Decision, 12 FCC Rcd at 481.

[1982] Recommended Decision, 12 FCC Rcd at 483.

[1983] Section 332(c)(3) states that "[n]othing in this subparagraph shall exempt providers of commercial mobile services (where such services are a substitute for land line telephone exchange service for a substantial portion of the communications within such State) from requirements imposed by a State commission on all providers of telecommunications services necessary to ensure the universal availability of telecommunications service at affordable rates." 47 U.S.C. § 332(c)(3).

[1984] Recommended Decision, 12 FCC Rcd at 484.

2. Discussion

a. Criteria for Mandatory Contributions

777. We agree with the Joint Board's recommendation that all telecommunications carriers that provide interstate telecommunications services must contribute to the support mechanisms.[1985] To be considered a mandatory contributor to universal service under section 254(d): (1) a telecommunications carrier must offer "interstate" "telecommunications"; (2) those interstate telecommunications must be offered "for a fee"; and (3) those interstate telecommunications must be offered "directly to the public, or to such classes of users as to be effectively available to the public."[1986]

778. Interstate. Telecommunications are "interstate" when the communication or transmission originates in any state, territory, possession of the United States, or the District of Columbia and terminates in another state, territory, possession, or the District of Columbia.[1987] In addition, under the Commission's rules, if over ten percent of the traffic carried over a private or WATS line is interstate, then the revenues and costs generated by the entire line are classified as interstate.[1988] In response to CNMI's comments that territories and possessions should be included within the definition of "interstate,"[1989] we agree with the Joint Board's conclusion that interstate telecommunications services include telecommunications services among U.S. territories and possessions because such areas are expressly included within the definition of "interstate."[1990]

779. We also agree with the Joint Board that the base of contributors to universal service should be construed broadly and should include international communications revenues generated by carriers of interstate telecommunications.[1991] Although we agree with PanAmSat that by definition, foreign or international telecommunications are not "interstate"

[1985] Recommended Decision, 12 FCC Rcd at 481.

[1986] *See* 47 U.S.C. §§ 153(22), 153(43), 153(44), 153(46). All interpretations of sections 153 and 254 contained in this section are to be used solely for the purpose of determining universal service contributions.

[1987] 47 U.S.C. § 153(22).

[1988] *See* 47 C.F.R. § 36.154(a).

[1989] CNMI comments at 34.

[1990] *See* 47 U.S.C. § 153(22). Recommended Decision, 12 FCC Rcd at 481.

[1991] *See infra* section XIII.F.

because they are not carried between states, territories, or possessions of the United States,[1992] we find that, pursuant to our statutory authority to assess contributions to universal service on an equitable and nondiscriminatory basis, we shall include the foreign telecommunications revenues of interstate carriers within the revenue base.[1993] Contributors that provide international telecommunications services benefit from universal service because they must either terminate or originate telecommunications on the domestic PSTN. Therefore, we find that contributors that provide international telecommunications services should contribute to universal service on the basis of revenues derived from those services. Foreign communications are defined as a "communication or transmission from or to any place in the United States to or from a foreign country, or between a station in the United States and a mobile station located outside of the United States."[1994] Communications that are billed to domestic end users should be included in the revenue base, including country direct calls[1995] when provided between the United States and a foreign point. Revenues from communications between two international points or foreign countries would not be included in the universal service base, for example, if a domestic end user used country direct calling between two foreign points. We find that carriers that provide only international telecommunications services are not required to contribute to universal service support mechanisms because they are not "telecommunications carriers that provide interstate telecommunications services." We recognize that by this decision, some providers of international services will be treated differently from others. We would prefer a more competitively neutral outcome, all other things being equal, but the statute precludes us from assessing contributions on the revenues of purely international carriers providing service in the United States, even though we believe that they, too, benefit from our universal service policies. We believe that it is nonetheless equitable and nondiscriminatory, given all of the principles that guide our actions here, to assess contributions, where the statute permits it, on the international revenues of carriers providing service in the United States that benefit from

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[1992] PanAmSat comments at 3. We note that COMSAT filed with the Commission an Application for Review, or in the Alternative, a Waiver, in the matter of TRS, and the Americans with Disabilities Act of 1990, CC Docket No. 90-571, on March 17, 1995, regarding the Commission's contribution requirements for the interstate TRS Fund. In that filing, COMSAT argues that it should not be considered a carrier that provides interstate telecommunications services because it is largely prohibited from serving the U.S. domestic market. If the Commission disagrees, COMSAT requests that its contribution to TRS be based only on its interstate revenues. COMSAT's Application for Review is still pending.

[1993] *See* 47 U.S.C. 254(d). *See also infra* section XIII.F.

[1994] 47 U.S.C. § 153(17).

[1995] Country direct calls include an automatic or operator-assisted telephone service under which a caller in country X calls a local number to be connected to another carrier's operator in country Y for the purpose of placing a call to a number in country Y. The call is billed at operator-assisted rates for the carrier in country Y. *See* AT&T Country Direct Service Agreement with Telecomunicaciones Internacionales de Argentina Telintar, S.A., *Memorandum Opinion and Order*, DA 96-146, rel. Oct. 21, 1996.

universal service. We note that any disparity among providers should be minimal, since most international revenues are today earned by carriers that also provide interstate services, and we further note that our universal service contribution rules will be exactly the same for foreign-owned carriers providing service in the United States as U.S.-owned carriers. Should we become aware of any significant competitive concerns in the future, however, we will revisit this issue. A legislative change allowing us to reach the international revenues of all carriers providing service in the United States who benefit from universal service would, of course, provide another solution for any competitive concerns. In addition, we agree with PanAmSat and find that incidental interstate traffic created during the transmission of an international communication should not qualify as "interstate communications" because the limited interstate traffic is unintended by the end user customer.[1996] We conclude, however, that carriers that provide both interstate and foreign telecommunications services must contribute to the extent they provide interstate and foreign telecommunications.[1997]

780. Telecommunications. Telecommunications is defined as a "transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[1998] The Recommended Decision included examples of services that the Joint Board believed would meet this definition. To provide more specific guidance as to what services qualify as "telecommunications," we adopt, with slight modification, the Joint Board's list of examples and find that the following services satisfy the above definition and are examples of interstate telecommunications:

> "cellular telephone and paging services; mobile radio services; operator services; PCS; access to interexchange service; special access; wide area telephone service (WATS); toll-free services; 900 services; MTS; private line; telex; telegraph; video services; satellite services; and resale services."

We agree with the Joint Board that "packet switched" services can qualify as interstate telecommunications, but we remove "packet switched" from our list because that term describes how information is transmitted rather than defining a particular service that would

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[1996] PanAmSat states that, in some limited cases, some of its satellites that are used to provide international service may also include connections between U.S. points. For example, an international network may include multiple terminals located in the U.S. that may communicate with one another during the course of an international transmission. PanAmSat comments at 4. Although, in the process of processing an international transmission, information may be transmitted from one domestic terminal to another, if a domestic end user sought to terminate the transmission in an international point, we will consider such domestic network communications incidental.

[1997] *See infra* section XIII.F.

[1998] 47 U.S.C. § 153(43).

be ordered by a customer. Concurring with the Joint Board, we include the revenues of interstate carriers derived from international services in the assessment base, but remove "international or foreign" from our list because, as described above, international or foreign communications are not interstate for the purposes of determining universal service contributions. We agree with the Joint Board that the competitive access services provided by competitive access providers qualify as "interstate telecommunications;" we remove, however, "alternative access" because those services are encompassed within "access to interexchange service." Furthermore, like the Joint Board, we disagree with Illinois CC's position that "access" should be removed from the list of examples of interstate telecommunications for we note that access is a tariffed service that is offered on a common carrier basis to any subscriber ordering it.[1999]

781. We also clarify the scope of contribution obligations for "satellite" and "video" services, which are among the services listed in the exemplary list provided by the Joint Board.[2000] The Joint Board recommended that the Commission adopt "the TRS approach" to identifying providers of interstate telecommunications services.[2001] Under our TRS rules, carriers must contribute to the TRS Fund based on their gross telecommunications services revenues.[2002] Consistent with its recommendation, the Joint Board concluded that satellite operators should contribute to universal service to the extent that they provide "telecommunications services."[2003] Some commenters argued that the services offered by satellite operators do not constitute telecommunications services and therefore should not be included for purposes of universal service contributions.[2004] We adopt the Joint Board's approach and clarify that satellite and video service providers must contribute to universal service only to the extent that they are providing interstate telecommunications services. Thus, for example, entities providing, on a common carrier basis, video conferencing services, channel service or video distribution services to cable head-ends would contribute to universal service. Entities providing open video systems (OVS), cable leased access, or direct broadcast satellite (DBS) services would not be required to contribute on the basis of revenues derived from those services.

782. We agree with the Joint Board that this list is not exhaustive. Other services

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[1999] Illinois CC comments at 6.

[2000] Recommended Decision, 12 FCC Rcd at 481.

[2001] Recommended Decision, 12 FCC Rcd at 482.

[2002] 47 C.F.R. § 64.604(c)(2)(iii)(A).

[2003] Recommended Decision, 12 FCC Rcd at 482.

[2004] *See, e.g.,* DIRECTV comments at 3-4.

not on the list or services that may be developed may also qualify as interstate telecommunications.

783. We acknowledge, as the Utah PSC notes, this list is expansive;[2005] nonetheless, we believe that broadly construing the definition of interstate telecommunications is consistent with the statute and necessary to achieve our policy goals and those of the Joint Board in this Order. By defining "telecommunications" broadly, we will broaden the base of mandatory contributors and will reduce the burden and possible impact on individual carriers' prices. It is also competitively neutral to require all carriers and "other providers of interstate telecommunications" to contribute to the support mechanisms because it reduces the possibility that carriers with universal service obligations will compete directly with carriers without such obligations.

784. For a Fee. We agree with the Joint Board's interpretation of the plain language of section 3(46) and find that the plain meaning of the phrase "for a fee" means services rendered in exchange for something of value or a monetary payment.[2006] We do not find persuasive UTC's argument that "for a fee" means "for-profit."[2007] We do not assume that Congress intended to limit "telecommunications services" to those which are offered "for-profit" when Congress could have, but did *not*, so state. In response to LCRA's request, we note that cost sharing for the construction and operation of private telecommunications networks does not render participants "telecommunications carriers" because such arrangements do not involve service "directly to the public."[2008]

785. Directly to the Public. We find that the definition of "telecommunications services" in which the phrase "directly to the public" appears is intended to encompass only telecommunications provided on a common carrier basis. This conclusion is based on the

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[2005] Utah PSC comments at 5. *See also* Georgia PSC reply comments at 35-36.

[2006] 47 U.S.C. § 153(46). *See* Recommended Decision, 12 FCC Rcd at 483.

[2007] UTC comments at 4-5.

[2008] LCRA comments at 7-8. *See also* Ad Hoc comments at 21-22; APPA comments at 5-10; UTC comments at 6; UTC reply comments at 2-3. We have defined cost "sharing" as a "non-profit arrangement in which several users collectively use communications services and facilities provided by a carrier, with each user paying the communications-related costs associated therewith according to its pro rata usage of the communications services and facilities." Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities, *Report and Order*, 60 FCC 2d 261 at para. 4 (1976). *See also Local Competition Order*, 11 FCC Rcd at 15990. In addition, as discussed in section X. of this Order, schools and libraries may join consortia to purchase eligible telecommunications services. If a consortium creates a billing system in which one school or library pays for the entire consortium's bill and receives reimbursement from the other members for their portion of the bill, the school or library responsible for paying the bill will not be considered a "telecommunications carrier."

Joint Explanatory Statement, which explains that the term telecommunications service "is defined as those services and facilities offered on a 'common carrier' basis, recognizing the distinction between common carrier offerings that are provided to the public . . . and private services."[2009] Federal precedent holds that a carrier may be a common carrier if it holds itself out "to service indifferently all potential users."[2010] Such users, however, are not limited to end users. Common carrier services include services offered to other carriers, such as exchange access service, which is offered on a common carrier basis, but is offered primarily to other carriers.[2011] Precedent further holds that a carrier will not be a common carrier "where its practice is to make individualized decisions in particular cases whether and on what terms to serve."[2012]

786. In light of the legislative history and precedent discussed above, we conclude that only common carriers should be considered mandatory contributors to the support mechanisms. We agree with the Joint Board's recommendation that any entity that provides interstate telecommunications to users other than significantly restricted classes[2013] for a fee should contribute to the support mechanisms.[2014] We find, however, that the statute supports reaching the Joint Board's goal under our permissive authority rather than our mandatory authority. We agree with the Joint Board that private network operators that lease excess capacity on a non-common carrier basis should contribute to universal service support; we do not, however, include them in the category of mandatory contributors.[2015] We classify these service providers as "other providers of interstate telecommunications" because we find that private network operators that lease excess capacity on a non-common carrier basis are not common carriers or mandatory contributors under the first sentence of section 254(d). Nevertheless, we find that, pursuant to our permissive authority, the public interest requires them, as providers of interstate telecommunications, to contribute to universal service because

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[2009] Joint Explanatory Statement at 115.

[2010] *National Association of Regulatory Utility Commissioners v. FCC*, 553 F.2d 601, 608 (D.C. Cir. 1976) (*NARUC II).*

[2011] *See* 47 C.F.R. § 69; *see generally* MTS and WATS Market Structure, Phase I, *Third Report and Order,* CC Docket 78-72, 93 FCC 2d 241, paras. 13, 23 (1982) (access charges are regulated services and include "carrier's carrier" services).

[2012] *NARUC II*, 553 F.2d at 608.

[2013] The *CMRS 2nd R&O* stated that significantly restricted classes included, for example, maritime use only and public safety use only. Implementation of Sections 3(n) and 332 of the Communications Act, *Second Report and Order,* FCC 94-31, 9 FCC Rcd 1411, 1439 (1994) (*CMRS 2nd R&O*). *See infra* section XIII.C.

[2014] Recommended Decision, 12 FCC Rcd at 483.

[2015] Recommended Decision, 12 FCC Rcd at 483.

they compete against telecommunications carriers in the provision of interstate telecommunications.[2016] We discuss the exercise of our permissive authority at great length in section XIII.C., below.

b. Particular Cases

787. We agree with the Joint Board and, contrary to commenters who argue that their particular industry or company should be exempt from contribution requirements,[2017] find no reason to exempt from contribution any of the broad classes of telecommunications carriers that provides interstate telecommunications services, including satellite operators, resellers, wholesalers, paging companies, utility companies, or carriers that serve rural or high cost areas, because the Act requires "every telecommunications carrier that provides interstate telecommunications services" to contribute to the support mechanisms.[2018] Thus, we agree with the Joint Board that any entity that provides interstate telecommunications services, including offering any of the services identified above for a fee directly to the public or to such classes of users as to be effectively available directly to the public, must contribute to the support mechanisms.

788. Furthermore, we agree with the Joint Board that information service providers (ISP) and enhanced service providers are not required to contribute to support mechanisms to the extent they provide such services. The Act defines an "information service" as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications . . . but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service."[2019] The Commission's rules define "enhanced services" as "services offered over common carrier transmission facilities used in interstate communications which employ computer processing applications that act on the format, content, code, protocol, or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or

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[2016] *See infra* section XIII.C.

[2017] *See, e.g.*, Celpage comments at 3-5 (paging providers); DIRECTV comments at 2-4 (multichannel video programming distributors); GE Americom comments at 7-9 (satellite space segment operators); Keystone Communications comments at 6 (broadcast transmission providers); Rural Electric Coop. comments at 2 (non-common carriers); UTC comments at 4-5 (utility and pipeline companies).

[2018] 47 U.S.C. § 254(d).

[2019] 47 U.S.C. § 153(20).

restructured information; or involve subscriber interaction with stored information."[2020] The definition of enhanced services is substantially similar to the definition of information services. In the *Non-Accounting Safeguards First Report and Order*, in which the Commission found that all services previously considered "enhanced services" are "information services," the Commission indicated that, to ensure regulatory certainty and continuity, it was preserving the definitional scheme by which certain services (enhanced and information services) are exempted from regulation under Title II of the Act.[2021]

789. The office of Senator Stevens asserts that information services are inherently telecommunications services because information services are offered via "telecommunications."[2022] We observe that ISPs alter the format of information through computer processing applications such as protocol conversion and interaction with stored data, while the statutory definition of telecommunications only includes transmissions that do not alter the form or content of the information sent.[2023] When a subscriber obtains a connection to an Internet service provider via voice grade access to the public switched network, that connection is a telecommunications service and is distinguishable from the Internet service provider's service offering. The language in section 254(h)(2) also indicates that information services are not inherently telecommunications services.[2024] Section 254(h)(2) states that the Commission must enhance access to advanced telecommunications and information services.[2025] If information services were a subset of advanced telecommunications, it would be repetitive to list specifically information services in that subsection.[2026]

[2020] 47 C.F.R. § 64.702. *See also* North American Telecommunications Association, Petition for Declaratory Ruling under Section 64.702 of the Commission's Rules Regarding the Integration of Centrex, Enhanced Services and Customer Premises Equipment, *Report and Order*, 101 FCC 2d 349 (1985), *recon.* 3 FCC Rcd 4385 (1988).

[2021] *See* Implementation of the Non-Accounting Safeguards of sections 271 and 272 of the Communications Act of 1934, *First Report and Order & FNPRM*, FCC 96-489, at para. 102 (rel. Dec. 24, 1996) (*Non-Accounting Safeguards First Report and Order*).

[2022] *See* Letter from Timothy A. Peterson, FCC to William F. Caton, FCC, regarding meeting among FCC and Sen. Stevens staff, dated March 13, 1997. *See also* Netscape Comments at 6 and reply comments at 3, setting out a similar argument.

[2023] 47 U.S.C. § 153(44). Telecommunications services, by definition, do not involve a "change in the form of contents of [the user's] information as sent or received," whereas information services, although provided via telecommunications, by definition involve "generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information." *See* discussion of enhanced services at Amendment of Section 64.702 of the Commission's Rules and Regulations, *Report and Order*, 2 FCC Rcd 3072, 3080 (1987).

[2024] 47 U.S.C. § 254(h)(2). *See supra* section X.B.2.b.

[2025] 47 U.S.C. § 254(h)(2).

[2026] *See supra* section X.B.2.b.

790. The classification of information services, and especially Internet-based services, raises many complicated and overlapping issues, with implications far beyond section 254. We agree with the Joint Board that we should re-evaluate which services qualify as information services in a separate proceeding in which we take into account changes in technology and the regulatory environment. We have issued a Notice of Inquiry seeking comment on the treatment of Internet access and other information services that use the public switched network.[2027] We intend in that proceeding to review the status of ISPs under the 1996 Act in a comprehensive manner.

791. With respect to the issue of whether states may require CMRS providers to contribute to state universal service support mechanisms, we agree with the Joint Board and find that section 332(c)(3) does not preclude states from requiring CMRS providers to contribute to state support mechanisms. Section 254(f) states that states may require telecommunications carriers that provide intrastate telecommunications services to make equitable and nondiscriminatory contributions to state support mechanisms.[2028] Section 332(c)(3) prohibits states from regulating the rates charged by CMRS providers. Section 332(c)(3) also states that "[n]othing *in this subparagraph* shall exempt providers of commercial mobile services (where such services are a substitute for land line telephone exchange service for a substantial portion of the communications within such [s]tate)" from state universal service requirements.[2029] Several commenters argue that section 332(c)(3) prohibits states from requiring CMRS providers operating within a state to contribute to state universal service programs unless the CMRS provider's service is a substitute for land line service in a substantial portion of the state.[2030] The Joint Board, however, disagreed. California PUC has adopted this interpretation and has required CMRS providers in California to contribute to the state's programs for Lifeline and high cost small companies since January 1, 1995.[2031] A Connecticut state court, however, has ruled that section 332(c)(3) prohibits Connecticut from assessing contributions against CMRS providers for intrastate universal

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[2027] Use of the Public Switched Network by Information Service and Internet Access Providers, *Notice of Inquiry*, CC Docket No 96-263 (released Dec. 24, 1996).

[2028] 47 U.S.C. § 254(f).

[2029] 47 U.S.C. § 332(c)(3) (emphasis added).

[2030] *See, e.g.*, BANM comments at 6-10; Celpage comments at 6-7; CTIA comments at 13-16; Nextel comments at 3-6; PageMart comments at 2-3; PageNet comments at 14; AirTouch reply comments at 35-38; Arch reply comments at 4-6; UTC reply comments at 7-8.

[2031] California PUC, Decision 94-09-065, 56 CPUC2d 290.

service programs.[2032]

792. We disagree with BANM that interpreting sections 332(c)(3) and 254(f) is a violation of the notice and comment requirements of the Administrative Procedure Act (APA).[2033] Section 553(b) of the APA requires federal agencies to provide notice of all proposed rules in the Federal Register.[2034] Section 553(b)(3)(A) of the APA, however, provides an exception to the notice requirement for interpretive rules and general statements of policy. As we are not adopting a substantive rule, we find that we have complied with the notice and comment requirements of the APA.

C. Other Providers of Interstate Telecommunications

1. Background

793. Section 254(d) also states that the Commission may require "[a]ny other provider of interstate telecommunications" to contribute to universal service, "if the public interest so requires."[2035] Pursuant to the definitions discussed above, a provider of interstate telecommunications would provide "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."[2036] Unlike providers of interstate telecommunications services, however, providers of interstate telecommunications would not offer telecommunications "for a fee directly to the public" (i.e., it would not be telecommunications offered on a common carrier basis).[2037] Congress noted this distinction when it stated that an entity can offer telecommunications on a private-service basis without incurring obligations as a common carrier.[2038] In the NPRM, the Commission asked if the public interest requires us to extend support obligations to "[a]ny other provider[s] of interstate telecommunications," and, if so, which categories of providers, other than telecommunications carriers, should be so

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[2032] *See Metro Mobile Cts. v. Connecticut Dept. of Public Utility Control*, No. CV-95-05512758 (Conn. Super. Ct., Judicial Dist. of Hartford-New Britain, Dec. 9, 1996).

[2033] BANM comments at 2.

[2034] 5 U.S.C. § 553(b).

[2035] 47 U.S.C. § 254(d).

[2036] 47 U.S.C. § 153(43).

[2037] 47 U.S.C. § 153(46).

[2038] Joint Explanatory Statement at 115.

obligated.[2039] The Joint Board recommended that "other providers of interstate telecommunications," entities that provide telecommunications that meet the entity's internal needs or that are provided free-of-charge, should not be required to contribute to the support mechanism.[2040]

2. Discussion

794. We require all the entities identified by the Joint Board in its Recommended Decision to contribute to the support mechanisms, subject to the slight modification discussed above regarding carriers that provide only international services. Because of the statutory language and legislative history discussed above, however, we reach the result recommended by the Joint Board in a slightly different manner. We find under our permissive authority over "other providers of telecommunications" that the public interest requires private service providers that offer their services to others for a fee and payphone aggregators to contribute to our support mechanisms. Although the Joint Board did not recommend that we exercise this permissive authority,[2041] the Joint Board based this recommendation on the assumption that private service providers that offer their services to others for a fee and payphone aggregators fell within the category of service providers governed by the mandatory provision of section 254(d).[2042] Given that we could not reach these parties under the mandatory provision, we reach them here instead.

795. We find that the principle of competitive neutrality, recommended by the Joint Board and adopted by the Commission, suggests that we should require certain "providers of interstate telecommunications" to contribute to the support mechanisms. Whether a business decides to sell telecommunications services to others on a common carrier or private contractual basis or through a separate corporate entity should not determine contribution obligations, because in either event the entity offers telecommunications to others for a fee. In addition, we do not want contribution obligations to shape business decisions, and we do not want to discourage carriers from continuing to offer their common carrier services. Therefore, we find that the public interest requires both private service providers that offer interstate telecommunications to others for a fee and payphone aggregators to contribute to the preservation and advancement of universal service in the same manner as carriers that provide "interstate telecommunications services" because this approach reduces

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[2039] NPRM at para. 119.

[2040] Recommended Decision, 12 FCC Rcd at 485.

[2041] Recommended Decision, 12 FCC Rcd at 485.

[2042] *See* Recommended Decision, 12 FCC Rcd at 482-483, 486 (indicating that all entities that provide interstate telecommunications to entities other than themselves will be mandatory contributors).

the possibility that carriers with universal service obligations will compete directly with carriers without such obligations. In addition, the inclusion of such providers as contributors to the support mechanisms will broaden the funding base, lessening contribution requirements on telecommunications carriers or any particular class of telecommunications providers.

796. Although some private service providers serve only their own internal needs, some provide services or lease excess capacity on a private contractual basis. The provision of services or the lease of excess capacity on a private contractual basis alone does not render these private service providers common carriers and thus mandatory contributors. We find justification, however, pursuant to our permissive authority, for requiring these providers that provide telecommunications to others in addition to serving their internal needs to contribute to federal universal service on the same basis as telecommunications carriers. Without the benefit of access to the PSTN, which is supported by universal service mechanisms, these providers would be unable to sell their services to others for a fee. Accordingly, these providers, like telecommunications or common carriers, have built their businesses or a part of their businesses on access to the PSTN, provide telecommunications in competition with common carriers, and their non-common carrier status results solely from the manner in which they have chosen to structure their operations. Even if a private network operator is not connected to the PSTN, if it provides telecommunications, it competes with common carriers, and the principle of competitive neutrality dictates that we should secure contributions from it as well as its competitors. Thus, pursuant to our permissive authority, we find that the public interest requires private service providers that offer services to others for a fee on a non-common carrier basis to contribute to the support mechanisms. We reiterate that cable leased access providers, OVS providers, and DBS providers would not be required to contribute pursuant to our permissive authority to require contributions from providers of interstate telecommunications.

797. We agree with RBOC Payphone Coalition that payphone service providers are not telecommunications carriers because they are "aggregators."[2043] Payphone service providers do, however, provide interstate telecommunications and thus are subject to our permissive authority to require contributions if the public interest so requires. Telecommunications carriers that provide payphone services must contribute on the basis of their telecommunications revenues, including the revenues derived from their payphone operations, because payphone revenues are revenues derived from end users for

[2043] Section 153(44) explicitly excludes aggregators from the definition of "telecommunications carrier." Aggregators are defined as "any person that, in the ordinary course of its operations, makes telephones available to the public or to transient users of its premises, for interstate telephone calls using a provider of operator services." 47 U.S.C. § 226(a)(2). *See also* Letter from Michael K. Kellogg, RBOC Payphone Coalition to William F. Caton, FCC, dated April 15, 1997 (explaining that aggregators are not telecommunications carriers).

telecommunications services.[2044] If we did not exercise our permissive authority, aggregators that provide only payphone service would not be required to contribute, while their telecommunications carrier competitors would. We do not want to create incentives for telecommunications carriers to alter their business structures by divesting their payphone operations in order to reduce their contributions to the support mechanisms. Thus, we find that because payphone aggregators are connected to the PSTN and because they directly compete with mandatory contributors to universal service the public interest requires payphone providers to contribute to the support mechanisms.

798. We do not wish, however, to require contributions from payphone aggregators, such as beauty shop or grocery store owners, retail establishment franchisees, restaurant owners, or schools that provide payphones primarily as a convenience to the customers of their primary business and do not provide payphone services as part of their core business. The provision of a payphone is merely incidental to their primary non-telecommunications business and constitutes a minimal percentage of their total annual business revenues. We anticipate that these entities will qualify for the *de minimis* exemption[2045] and that they will not be required to contribute because their contributions will be less than $100.00 per year. If their contributions exceed the *de minimis* level, however, they will be required to contribute.

799. Finally, we agree with the Joint Board that those "other providers of telecommunications" that provide telecommunications solely to meet their internal needs should not be required to contribute to the support mechanisms at this time, because telecommunications do not comprise the core of their business. Private network operators that serve only their internal needs do not lease excess capacity to others and do not charge others for use of their network. Thus, we find that they have not structured their businesses around the provision of telecommunications to others. In addition, it would be administratively burdensome to assess a special non-revenues-based contribution on these providers because they do not derive revenues from the provision of services to themselves.

800. In response to LCRA's request for clarification,[2046] we note that cost-sharing for the construction and operation of private networks would not render participants "other providers of telecommunications" that must contribute to the support mechanisms because the participants are a consortium of customers of a carrier. If, however, a lead participant owned

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[2044] As discussed in section XIII.E., *infra*, we conclude that contributions to the universal service support mechanisms should be based on end-user telecommunications revenues.

[2045] *See infra* section XIII.D.

[2046] LCRA comments at 7-8. *See also* Ad Hoc comments at 21-22; APPA comments at 5-10; UTC comments at 6; UTC reply comments at 2-3. *See Local Competition Order*, 11 FCC Rcd at 15,990.

and operated its own telecommunications network and received monetary payments for service from other participants, the lead participant would be a provider of telecommunications and, if it provided interstate telecommunications, would be included within the group that we require to contribute to the support mechanisms, subject to the *de minimis* exemption. We also find, however, that government entities that purchase telecommunications services in bulk on behalf of themselves, e.g., state networks for schools and libraries, will not be considered "other providers of telecommunications" that will be required to contribute. Such government entities would be purchasing services for local or state governments or related agencies. Therefore, we find that such government agencies serve only their internal needs and should not be required to contribute. Similarly, we conclude that public safety and local governmental entities licensed under Subpart B of Part 90 of our rules[2047] will not be required to contribute because of the restrictive eligibility requirements for these services and because of the important public safety and welfare functions for which these services are used. Similarly, if an entity exclusively provides interstate telecommunications to public safety or government entities and does not offer services to others, that entity will not be required to contribute.

D. The *De Minimis* Exemption

1. Background

801. The Commission may exempt a carrier or class of carriers from contributing to the universal service mechanisms "if the carrier's telecommunications activities are limited to such an extent that the level of such carrier's contribution to the preservation and advancement of universal service would be *de minimis*."[2048] In the NPRM, the Commission sought comment on whether we should establish rules of general applicability for exempting very small telecommunications carriers, and if so, what the basis should be for determining that the administrative cost of collecting support would exceed a carrier's potential contribution.[2049] Within those parameters, the Commission also specifically sought comment on measures to avoid significant economic harm to small business entities, as defined by section 601(3) of the Regulatory Flexibility Act.[2050] In the Further Comment Public Notice, the Commission asked what levels of administrative costs should be expected per carrier under the various methods that have been proposed for funding (e.g., gross revenues, revenues

[2047] 47 C.F.R. §§ 90.15 - 90.27.

[2048] 47 U.S.C. § 254(d).

[2049] NPRM at para. 120.

[2050] 5 U.S.C. § 601(3).

net of payments to other carriers, retail revenues, etc.).[2051] The Joint Board recommended that the Commission exempt from contribution and reporting requirements all carriers for which the amount of the contribution due would exceed the administrative cost of collection.[2052] The Joint Board also recommended that small carriers not be treated differently than large carriers.[2053]

3. Discussion

802. We adopt the Joint Board's view that contributors whose contributions are less than the administrator's administrative costs of collection should be exempt from reporting and contribution requirements.[2054] Section 254(d) itself does not provide specific guidance on how the Commission should exercise its authority to exempt carriers whose contributions would be *de minimis*. The Joint Explanatory Statement, however, states the congressional expectation that "this authority would only be used in cases where the administrative cost of collecting contributions from a carrier or carriers would exceed the contribution that carrier would otherwise have to make under the formula for contributions selected by the Commission."[2055] Thus, we find that the legislative history of section 254(d) clarifies Congress's intent that this exemption be narrowly construed. It also clarifies that the purpose of the *de minimis* exemption is to prevent waste resulting from requiring contributions when the administrative costs of collecting them will exceed the amounts collected. Thus, we adopt the Joint Board's recommendation and reject commenters' arguments in support of other factors for determining when a carrier providing interstate telecommunications services should be exempt from the statutory obligation to contribute to federal universal service support mechanisms.[2056]

803. We agree with the Joint Board and disagree with Teleport, which advocates basing the exemption on the administrator's and contributors' costs, and conclude that the cost of collection should encompass only the administrator's costs to bill and collect individual carrier contributions.[2057] Although we agree that a *de minimis* exemption, as defined above, will serve the public interest, commenters did not submit data regarding the incremental cost

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[2051] Further Public Notice at 9.

[2052] Recommended Decision, 12 FCC Rcd at 489.

[2053] Recommended Decision, 12 FCC Rcd at 490.

[2054] Recommended Decision, 12 FCC Rcd at 489.

[2055] Joint Explanatory Statement at 131 (1996).

[2056] *See, e.g.*, Metricom comments at 4-6; Rural Electric Coop. comments at 3; Teleport comments at 11.

[2057] Teleport comments at 11.

of collection for the record. We will adopt the $100.00 minimum contribution requirement used for TRS contribution purposes[2058] because we assume that the administrator's administrative costs of collection could possibly equal as much as $100.00. Therefore, if a contributor's contribution would be less than $100.00, it will not be required to contribute or comply with reporting requirements. In response to Metricom's assertions that it will be difficult to identify unlicensed Part 15 providers,[2059] we note that the $100.00 estimate is high and should be sufficient to encompass all administrative costs.[2060] We instruct the administrator, however, to re-evaluate incremental administrative costs, taking into account inflation, after the contribution mechanisms have been implemented.

804. We agree with the Joint Board that the *de minimis* exemption is the only basis upon which to exempt contributors.[2061] Therefore, we disagree with commenters that suggest that the exemption criteria for carriers that are ineligible to receive support should be different from those applying to "eligible" carriers.[2062] We find nothing to indicate a congressional intent to interpret the *de minimis* exemption in this way. Congress required all telecommunications carriers to contribute to universal service support mechanisms but provided that only "eligible" carriers should receive support, and gave no direction to the Commission to establish preferential treatment for carriers that are ineligible for support.

805. We reject Celpage's argument that requiring contributions by paging carriers represents an unconstitutional tax because paging carriers do not derive any benefit from universal service.[2063] First, we note that although some paging carriers may be ineligible to receive support, all telecommunications carriers benefit from a ubiquitous telecommunications network. Customers who receive pages would not be able to receive or respond to those pages absent use of the PSTN. Second, as we explained above, our contribution requirements do not constitute a tax.[2064] Therefore, contrary to Celpage's arguments, requiring paging

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[2058] *See* 47 C.F.R. § 64.604(c)(4)(iii)(B).

[2059] Metricom comments at 4-6.

[2060] In comments to the Recommended Decision, NECA estimated administrative costs to be approximately $20.00 per contributor. *See* Recommended Decision, 12 FCC Rcd at 489.

[2061] Recommended Decision, 12 FCC Rcd at 490.

[2062] *See, e.g.*, Arch comments at 3-6; Celpage comments at 9-10; PageMart comments at 7-8; PageNet comments at 10-13; PNPA comments at 3-5; AirTouch reply comments at 25; Centennial reply comments at 3-4 (claiming that unless its CMRS is a substitute for land line service, CMRS operator should make reduced contribution).

[2063] Celpage comments at 3-5. *See also* PNPA comments at 5-6.

[2064] *See supra* section X.F.2.

companies to contribute to the support mechanisms does not present constitutional problems. Some commenters also argue that carriers ineligible to receive support should be allowed to make reduced contributions to universal service.[2065] Because section 254(d) states that "every telecommunications carrier that provides interstate telecommunications services" must contribute to universal service and does not limit contributions to "eligible carriers," we agree with the Joint Board and reject these arguments. Thus, we find that the *de minimis* exemption cannot and should not be interpreted to allow reduced contributions or contribution exemptions for ineligible carriers.

E. Scope of the Commission's Authority Over the Universal Service Support Mechanisms

1. Overview

806. In determining the appropriate scope of the revenue base for federal universal service support, the Joint Board Recommended Decision stressed that the 1996 Act "reflects the continued partnership among the states and the Commission in preserving and advancing universal service."[2066] Ultimately, the Recommended Decision concluded that the "role of complementary state and federal universal service mechanisms require[d] further reflection" before the Joint Board could make a recommendation as to whether the revenue base for the federal universal support mechanisms for the high cost and low-income assistance programs should be based on intrastate as well as interstate revenues.[2067] Nonetheless, the Joint Board was able to recommend that "universal support mechanisms for schools and libraries and rural health care providers be funded by assessing both the intrastate and interstate revenues of providers of interstate telecommunications services."[2068]

807. Although we conclude that section 254 grants the Commission the authority to assess contributions for the universal service support mechanisms for rural, insular, and high cost areas and low income consumers from intrastate as well as interstate revenues and to require carriers to seek authority from states to recover a portion of the contribution in intrastate rates, we decline to exercise the full extent of our authority. The decision to decline to exercise the entirety of our authority is intended to promote comity between the federal and

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[2065] PageMart comments at 7-8. *See also* Arch comments at 3-6; Celpage comments at 9-10; PageNet comments at 10-13; PNPA comments at 3-5; AirTouch reply comments at 25; Centennial reply comments at 3-4 (claiming unless its CMRS is a substitute for land line service, CMRS operator should make reduced contribution).

[2066] Recommended Decision, 12 FCC Rcd at 500.

[2067] Recommended Decision, 12 FCC Rcd at 501.

[2068] Recommended Decision, 12 FCC Rcd at 499.

state governments and is based on our respect for the states' historical expertise in providing for universal service.

808. There are three dimensions to determining how the recovery component of the federal universal service mechanisms will work. The first dimension is determining the total amount of support required to meet the federal obligation imposed by section 254. This issue is addressed elsewhere in this Order, specifically in section IV where we determine which services we will support and in sections VII and VIII where we determine the appropriate amount of support for the high cost and low-income support mechanisms and sections X and XI, where we determine the appropriate amount of support for schools, libraries, and rural health care providers. The second dimension to our inquiry is whether we should assess carriers' contributions to the universal service support mechanisms from interstate revenues only or from interstate and intrastate revenues. As to the second dimension, we adopt the Joint Board's recommendation "that universal service support mechanisms for schools and libraries and rural health care providers be funded by assessing both the intrastate and interstate revenues of providers of interstate telecommunications services."[2069] The Joint Board determined that it was premature for it to recommend that we assess carriers' contributions for the high cost and low-income support mechanisms based on carriers' intrastate as well as interstate revenues. We have decided to continue to assess carriers' contributions for the high cost and low-income support mechanisms based only upon the carriers' interstate revenues because we want to continue to work with the Joint Board on this issue to develop a unified approach to the low-income and high cost mechanisms and because we believe that in the meantime the states will continue to provide for the high cost and low-income mechanisms in such a manner that the mechanisms will be sufficiently funded.

809. The third dimension to our inquiry is whether carriers may recover their contributions to the universal service support mechanisms through rates for interstate services or through a combination of rates for interstate and rates for intrastate services. The Joint Board did not address this question. Because the Joint Board did not recommend that we authorize carriers to recover their contributions via rates for intrastate services, we conclude that at least for the present we should maintain our traditional method of providing for recovery, which permits carriers to recover their federal universal service contributions through rates for interstate services only. As described below, we believe that this approach will best promote the continued affordability of basic residential service. For the same reason, i.e., to maintain and promote the affordability of basic residential service, we also are declining to create a single interstate fee that would be paid by basic residential dialtone subscribers. We will, however, continue to seek guidance from the Joint Board as to whether carriers should be required to seek state authorization to recover a portion of the universal service contribution in intrastate rates, rather than in interstate rates alone.

[2069] Recommended Decision, 12 FCC Rcd at 499.

2. Background

810. The Joint Board recommended that support for eligible schools, libraries, and rural health care providers be based on revenues derived from interstate and intrastate telecommunications services but did not issue a recommendation regarding the revenue funding base for support for high cost areas or low-income consumers.[2070]

811. As detailed in Appendix J containing the comment summaries, the commenters generally disagreed as to whether intrastate telecommunications revenues should be included when assessing carrier contributions to the support mechanisms and as to whether the Commission has the statutory authority to include those revenues.

812. On April 24, 1997, a majority of the state members of the Joint Board filed a report with the Commission discussing their recommendations on the funding of the universal service support mechanisms.[2071] The majority state members of the Joint Board recommended that all of the universal service mechanisms be supported "through an assessment on the interstate and intrastate revenues of interstate telecommunications carriers."[2072] The majority state members also concluded, however, that if implementation of the modified high cost support mechanisms "must await further refinement" of a forward-looking cost methodology, then they would "support an interim policy of assessing only interstate revenues."[2073] Commissioners McClure and Schoenfelder dissented from the majority state members' conclusion that the Commission should assess contributions for the support mechanisms from intrastate as well as interstate revenues.[2074]

3. Discussion

[2070] Recommended Decision, 12 FCC Rcd at 499. Two of the state members of the Joint Board, Commissioner McClure and Commissioner Schoenfelder, dissented from that portion of the Recommended Decision that recommended that the support mechanisms for eligible schools, libraries, and rural health care providers be based on revenues derived from intrastate as well as interstate revenues. Recommended Decision, 12 FCC Rcd at 571, 576.

[2071] Majority Opinion of the State Members of the Joint Board on the Funding of Universal Service, dated Apr. 24, 1997 ("Majority State Members' Jurisdiction Report").

[2072] Majority State Members' Jurisdiction Report at 1.

[2073] Majority State Members' Jurisdiction Report at 2.

[2074] Dissenting Statement of Commissioner Kenneth McClure and Commissioner Laska Schoenfelder, filed Apr. 23, 1997 ("McClure/Schoenfelder Dissent").

a. General Jurisdiction Over Universal Service Support Mechanisms

813. For the reasons described below, we conclude that the Commission has jurisdiction to assess contributions for the universal service support mechanisms from intrastate as well as interstate revenues and to require carriers to seek state (and not federal) authority to recover a portion of the contribution in intrastate rates. Although we expressly decline to exercise the entirety of this jurisdiction, we believe it is important to set forth the contours of our authority in this Order.

814. Our authority over the universal service support mechanisms is derived first and foremost from the plain language of section 254. First, section 254(a) provides that rules "to implement" the section are to be recommended by the Joint Board, and those recommendations, in turn, are to be implemented by the Commission.[2075] Thus, the Commission has the ultimate responsibility to effectuate section 254. Further, Congress reemphasized the Commission's authority independent of the Joint Board by directing in section 254(c)(2) that the concept of universal service is an "evolving level of telecommunications *that the Commission shall establish* periodically."[2076] Thus, Congress expressly authorized the Commission to define the parameters of universal service.[2077]

815. Section 254(d) also mandates that interstate telecommunications carriers "shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and *sufficient* mechanisms established by the Commission to preserve and advance universal service."[2078] In thus prescribing that the support mechanisms be "sufficient," Congress obligated the Commission to ensure that the support mechanisms satisfy section 254's goal of "preserving and advancing universal service," consistent with the principles set forth in section 254(b), including the principle that quality services should be available at "just,

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[2075] 47 U.S.C. § 254(a)(2).

[2076] 47 U.S.C. § 254(c)(1) (emphasis added).

[2077] Congress expressly directed the Commission to initiate a proceeding to implement Section 254. 47 U.S.C. § 254(a)(1). Thus, there can be no doubt that Congress intended the Commission to promulgate regulations to effectuate section 254. *See* 47 U.S.C. § 254(a)(1)&(2). Of course, the Commission also possesses "expansive" rulemaking authority over all provisions of the Communications Act, and in particular over the provisions of Title II of the Communications Act, of which Section 254 is a part. *See* 47 U.S.C. §§ 154(i), 201(b), 303(r); *NBC v. United States*, 319 U.S. 190, 219 (1943).

[2078] 47 U.S.C. § 254(d) (emphasis added). *See also* 47 U.S.C. § 254(b)(5) ("There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service.")

reasonable, and affordable rates."[2079] In so doing, Congress expressly granted the Commission jurisdiction to establish support mechanisms of a sufficient size adequately to support universal service.

816. In essence, the provisions of section 254 direct that the Commission ultimately prescribe what services should be supported, and they mandate that the Commission ensure that the support for those services is "specific, predictable, and sufficient."[2080] Although the states are independently obligated to ensure that support mechanisms are "specific, predictable, and sufficient" and that rates are "just, reasonable, and affordable,"[2081] there is no doubt that the Commission -- with the help of the states -- is to establish in the first instance what services should be supported and what are the necessary mechanisms to do so. This is because the states' authority to adopt sufficient support mechanisms is restricted to only those mechanisms that are consistent with and do not burden the federal mechanisms.[2082] Because state universal service mechanisms must be consistent and must not conflict with the federal mechanisms, it is reasonable to conclude that section 254 grants the Commission the primary responsibility and authority to ensure that universal service mechanisms are "specific, predictable, and sufficient" to meet the statutory principle of "just, reasonable, and affordable rates."[2083] The fact that the Commission has this authority does not preclude the Commission from continuing to work with the states to provide for universal service, so long as this partnership results in support mechanisms that comply with the mandates of section 254.

817. Congress recognized that the services supported by the universal service support mechanisms would include both intrastate and interstate services. For example, in section 254(b)(3), Congress established the principle that the Commission is to formulate its universal service rules and policies so that "[c]onsumers in all regions of the Nation . . . have access to telecommunications and information services, including interexchange services."[2084] The fact that universal service *includes* access to interexchange services, the traditional focus of federal telecommunications law, shows that universal service includes *more* than access to interexchange services. Indeed, the traditional core goal of universal service has been to ensure that basic residential telephone service, which is primarily an intrastate service, is

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[2079] 47 U.S.C. § 254(b)(1); 47 U.S.C. § 254(i) ("The Commission and the States should ensure that universal service is available at rates that are just, reasonable, and affordable.").

[2080] 47 U.S.C. § 254(d); *see also* 47 U.S.C. § 254(b)(5).

[2081] 47 U.S.C. §§ 254(b)(5), (d), (i).

[2082] 47 U.S.C. § 254(f).

[2083] 47 U.S.C. § 254(b)(1) & (5), (d), (i).

[2084] 47 U.S.C. § 254(b)(3).

affordable. The goal of keeping basic residential rates low traditionally has been advanced by both the FCC and the state commissions, which have kept intrastate residential rates low by means of implicit support mechanisms such as allowing LECs to raise rates on business lines and on vertical services such as call waiting to levels greater than those that would be charges in a competitive market. In section 254(b), Congress made affordable basic service a goal of federal universal service, by that determination, Congress meant that both interstate and intrastate services should be affordable.[2085] The Joint Board agreed with this conclusion by including intrastate services on the list of telecommunications services that it recommended for universal service support pursuant to section 254(c). Congress also directed the Commission and the states to strive to make implicit support mechanisms explicit. We have found nothing in the statute or legislative history to show that, notwithstanding Congress's mandate to make universal service subsidies explicit, Congress intended to alter the current arrangement by requiring interstate services to assume the entire burden of providing for universal service. Accordingly, the section 254 mandate covers both interstate and intrastate services and therefore it is also reasonable that the Commission, in ensuring that the overall amount of the universal support mechanisms is "specific, predictable, and sufficient," may also mandate that contributions be based on carriers' provision of intrastate services. As discussed below, however, we decline to exercise the full extent of this authority out of respect for the states and the Joint Board's expertise in protecting universal service.

818. We fully appreciate and support the continuation of the historical informal partnership between the states and the Commission in preserving and advancing the universal service support mechanisms envisioned by section 254. Indeed, we believe that section 254 envisions the continuation of this partnership. We conclude nonetheless that this partnership does not affect the Commission's jurisdiction to assess contributions sufficient to meet that need from both interstate and intrastate revenues. Indeed, in recommending that we assess contributions based on intrastate and interstate revenues, the Majority State Members' Jurisdiction Report recognized that section 254 "represents a significant departure from the current method of funding existing universal service mechanisms," but that there still is a "need for federal and state regulators to manage the transition to competitive markets together."[2086] We have concluded that we will assess contributions for the support mechanisms for eligible schools, libraries, and rural health care providers from intrastate and interstate revenues. We also conclude that, when we assess contributions based on intrastate as well as interstate revenues, we have the authority to refer carriers to the states to seek authority to recover a portion of their intrastate contribution from intrastate rates. We have not adopted this approach in this Order. In section 254(f) Congress expressly allowed only for those state universal service mechanisms that are not "inconsistent with the Commission's

[2085] As discussed below, we are accomplishing the goal of affordable service for eligible schools, libraries, and rural health care providers by assessing contributions based on both interstate and intrastate revenues.

[2086] Majority State Members' Jurisdiction Report at 2.

rules to preserve and advance universal service."[2087] Thus, the statutory scheme of section 254 demonstrates that the Commission ultimately is responsible for ensuring sufficient support mechanisms, that the states are encouraged to become partners with the Commission in ensuring sufficient support mechanisms, and that the states may prescribe additional, supplemental mechanisms.[2088] Section 254 also *permits* the Commission to coordinate with the states in establishing the universal service support mechanisms so long as this cooperative relationship produces universal service support mechanisms that comply with the mandates of section 254 and we have adopted this approach with respect to the high cost and low-income support mechanisms.

819. There is no indication that Congress's authorization in section 254(f) of a separate support mechanism covering intrastate carriers evidences an intent that the amount of a carrier's contributions to the respective support mechanisms similarly should be based on the type of communications service, interstate or intrastate, provided by the carrier. Nothing in the legislative history supports such an inference. Indeed, the legislative history indicates that states may continue to have jurisdiction over implementing universal service mechanisms for intrastate services supplemental to the federal mechanisms so long as "the level of universal service provided by each state meets the minimum definition of universal service established [under section 254] and a State does not take any action inconsistent with the obligation for all telecommunications carriers to contribute to the preservation and advancement of universal service" established under section 254.[2089]

820. Several state PUCs assert that the Commission does not have jurisdiction over interstate and intrastate telecommunications revenues because such a scheme would potentially subject carriers' intrastate revenues to two support mechanisms, one federal and one state.[2090] The commenters argue that this double burden will hinder states' abilities to address state universal service issues. It is not clear to us how states would be hindered, because many of the carriers contributing to state and federal support mechanisms also would

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[2087] 47 U.S.C. § 254(f); *see also* 47 U.S.C. § 254(b)(5).

[2088] *Compare* 47 U.S.C. § 254(b) ("The Joint Board and the Commission shall base policies for the preservation and advancement of universal service on the following principles . . ."); § 254(c)(1) ("Universal service is an evolving level of telecommunications services that the Commission shall establish") *with* 47 U.S.C. § 254(f) ("A State may adopt regulations *not inconsistent* with the Commission's rules to preserve and advance universal service. . . . A State may adopt regulations to provide for *additional* definitions and standards to preserve and advance universal service within that State only to the extent that such regulations adopt *additional* specific, predictable, and sufficient mechanisms to support such definitions or standards and *do not rely on or burden* Federal universal service support mechanisms") (emphasis added).

[2089] Joint Explanatory Statement at 128.

[2090] *See e.g.*, Alabama PSC comments at 2-3; Kansas CC comments at 6; Kentucky PSC comments at 2-3.

be eligible to receive both state and federal support. In any event, the statutory language envisions that both the federal and state support mechanisms will support basic intrastate and interstate services and, moreover, the statutory language plainly envisions that the state mechanisms will be in addition to the federal mechanisms.[2091]

821. Section 2(b) of the Communications Act is not implicated in this jurisdictional analysis. Section 2(b) provides that "nothing in [the Communications Act] shall be construed to apply or give the Commission jurisdiction with respect to . . . charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communications service by wire or radio."[2092] Even when the Commission exercises jurisdiction to assess contributions for universal service support from intrastate as well interstate revenues (i.e., for eligible schools and libraries and rural health care providers), such an approach does not constitute rate regulation of those services or regulation of those services so as to violate section 2(b). Instead, the Commission merely is supporting those services, as expressly required by Congress in section 254 and as recommended by the Joint Board. Indeed, as discussed above, Congress expressly mandated that the Commission ensure that such support mechanisms be sufficient. As recognized by several of the commenters, when assessing contributions based on intrastate and interstate revenues, the Commission merely is calculating a federal charge based on both interstate and intrastate revenues, which is distinct from regulating the rates and conditions of interstate service.[2093]

822. Moreover, although the Commission is not adopting this approach, section 2(b) would not be implicated even if the Commission were to refer carriers to the states to obtain authorization to recover their intrastate contributions via intrastate rates, which it is not doing, because the Commission would still be referring the matter to the states' authority over changes in intrastate rates and the Commission itself would not be regulating those rates. In any event, to the extent that section 2(b) would be implicated in either of these approaches (assessment or recovery), section 254's express directive that universal service support mechanisms be "sufficient" ameliorates any section 2(b) concerns because, as a rule of construction section 2(b) only is implicated where the statutory provision is ambiguous.[2094]

[2091] 47 U.S.C. § 254(f).

[2092] 47 U.S.C. § 152(b).

[2093] *See, e.g.*, Roseville Tel. Co. comments at 5; Vermont PSB comments at 5.

[2094] Section 601 also is consistent with our conclusion. Section 601 of the 1996 Act provides that the Act and its amendments "shall not be construed to modify, impair, or supersede Federal, State, or local law unless expressly so provided in such Act or amendments." 47 U.S.C. § 601. We are not modifying any state law, but merely implementing a federal mandate and merely continuing the federal-state partnership that historically has provided for universal service. Section 261 also is consistent with our analysis because we are in no way preventing the states from continuing or implementing universal service mechanisms so long as those

Here, as discussed above, section 254 is unambiguous in that the services to be supported have intrastate as well as interstate characteristics and in that the Commission is to promulgate regulations implementing federal support mechanisms covering the intrastate and interstate characteristics of the supported services. Therefore, the unambiguous language of section 254 overrides section 2(b)'s otherwise-applicable rule of construction.

823. Further, to the extent that commenters assert that the Communications Act generally divides the world into two spheres -- Commission jurisdiction over interstate carriers and interstate revenues and state jurisdiction over intrastate carriers and intrastate revenues -- section 254 blurs any perceived bright line between interstate and intrastate matters. The services that will be supported pursuant to this Order include both intrastate and interstate services. As discussed above, although section 254 anticipates a federal-state universal service partnership, section 254 grants the Commission primary responsibility for defining the parameters of universal service. Indeed, the recognition of this fact presumably led Congress to require Joint Board involvement in that Congress recognized that it was important for the Commission to consider the states' recommendations because the regulations ultimately adopted inevitably would affect the states' traditional universal service programs.[2095] The new requirements in the statute to consider the needs of schools, libraries, and health care providers in and of themselves require a fresh look at universal service. The legislative history also indicates that the Commission, in consultation with the Joint Board, was not to be bound by mechanisms used currently. For example, the Joint Explanatory Statement warned against reliance on some current methodologies by stating that any support mechanisms should be "explicit, rather than implicit as many support mechanisms are today."[2096] Similarly, the Senate Report on S. 652 states that "the bill does not presume that any particular existing mechanism for universal service support must be maintained or discontinued."[2097] Therefore, we conclude that section 254 grants us the authority to assess contributions for the universal service support mechanisms from intrastate as well as interstate revenues and to refer carriers to seek state (and not federal) authorization to recover a portion of the contribution in intrastate rates. As described below, however, we see no need at this time to exercise the full extent of our jurisdiction.

b. Scope of the Revenue Base for the High Cost and Low-Income Support Mechanisms

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mechanisms are consistent with our mechanisms. 47 U.S.C. § 261.

[2095] It would be anomalous for Congress to have required such an active role for the states in a process concerned only with interstate matters.

[2096] Joint Explanatory Statement at 131. As previously noted, many of the implicit support mechanisms today are intrastate.

[2097] S. Rep. No. 23, 104th Cong., 1st Sess. 25 (1995).

824. We have determined that we will assess and permit recovery of contributions to the rural, insular, and high cost and low-income support mechanisms based only on interstate revenues. We will seek further guidance on this subject from the Joint Board because the Joint Board did not at the time of the Recommended Decision make a recommendation as to whether the revenue base for the high cost and low-income mechanisms should include intrastate as well as interstate revenues. We believe that our approach to assessment and recovery serves the public interest because it promotes comity between the federal and state governments and because it continues the traditional informal partnership between the federal government and the states in supporting universal service. Moreover, as described below, we believe that our approach for permitting recovery of carriers' contributions will help ensure the continued affordability of basic residential dialtone service. We fully anticipate that each of the states will join with us in ensuring the establishment of "specific, predictable, and sufficient" universal service support mechanisms.[2098]

825. Recovery of Carriers' Contributions to the High Cost and Low-Income Support Mechanisms. We have determined to continue our historical approach to recovery of universal service support mechanisms, that is, to permit carriers to recover contributions to universal service support mechanisms through rates for interstate services only. In discussing recovery we are referring to the process by which carriers' recoup the amount of their contributions to universal service. Although the Joint Board did not address this issue, as discussed below, the Joint Board concluded that the "role of complementary state and federal universal service mechanisms require[d] further reflection" before the Joint Board could recommend that we assess contributions based on intrastate as well as interstate revenues.[2099] Therefore, we believe that our decision to provide for recovery based only on rates for interstate services is not inconsistent with the Joint Board Recommended Decision.

826. We believe that our approach to recovery promotes comity between the federal and state governments in that our approach will help us to develop a unified federal-state approach to universal service. As discussed above in section XIII.E.3.a, section 254 permits, but does not require, the Commission to assess contributions based only on interstate revenues (instead of on interstate and intrastate revenues). While the Joint Board further considers these jurisdictional issues, we deem it to be in the public interest to maintain the current relationship whereby the federal government oversees the assessments and recovery of the interstate share of the necessary contributions, and the state governments assess and provide recovery for the intrastate share of the necessary contributions. We also deem it in the public interest to maintain the traditional federal-state partnership because many states are in the process of altering their own universal service programs to comply with section 254 and we prefer to await the outcome of these reforms (which are expected later this year) before

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[2098] 47 U.S.C. § 254(b)(5), (d).

[2099] Recommended Decision, 12 FCC Rcd at 501.

altering the federal-state relationship that thus far has provided for universal service for high cost areas and low-income consumers. Thus, we see no need for an immediate change in the manner in which these intrastate contributions are assessed and recovered.

827. Our decision as to the recovery of universal service contributions also is consistent with the statutory principle of providing affordable basic residential service in that by providing for recovery through interstate mechanisms we are avoiding a blanket increase in charges for basic residential dialtone service.[2100]

828. By providing for recovery of contributions to support universal service in rural, insular, and high cost areas and for low-income consumers solely from rates for interstate services, we also avoid any of the asserted difficulties raised by commenters such as NYNEX that oppose assessing contributions from interstate and intrastate revenues because some carriers may face difficulty recovering contributions based on intrastate revenues.[2101] Similarly, to the extent that some commenters were concerned that section 2(b) prevents us from providing for recovery via rates for intrastate services, there are no such problems -- perceived or otherwise -- with our decision to provide for recovery solely through rates for interstate services.

829. Under our recovery mechanism, carriers will be permitted, but not required, to pass through their contributions to their interstate access and interexchange customers.[2102] We note that, if some carriers (e.g., IXCs) decide to recover their contribution costs from their customers, the carriers may not shift more than an equitable share of their contributions to any customer or group of customers.[2103] As discussed below in section XIII.F, we also have determined that the interstate contributions will constitute the substantial cause that would provide a public interest justification for filing federal tariff changes or making contract adjustments.

830. We have determined that ILECs subject to our price cap rules may treat their contributions for the new universal service support mechanisms as an exogenous cost change.

[2100] 47 U.S.C. § 254(b)(1).

[2101] NYNEX comments at 25. *See also* Ohio PUC reply comments at 17-18.

[2102] The details of the recovery mechanism for price cap LECs are explained in our companion *Access Charge Reform Order*, section VI.D.2.b.

[2103] In the *Local Competition Order*, the Commission stated that wholesale rates should be based on retail prices less avoided costs. *See Local Competition Order*, 11 FCC Rcd 15,954-15,957. We note that universal service contributions should be an additional avoided cost taken into account by states when setting the avoided cost discount rate. That is, avoided costs should include the contribution that an ILEC avoids from providing service to a reseller as opposed to an end user.

We outline the precise contours of the exogenous change available to federal price cap carriers in our *Access Charge Reform Order*, adopted contemporaneously with this Order. For carriers not subject to federal price caps (e.g., other ILECs), we have determined to permit recovery of universal service contributions by applying a factor to increase their carrier common line charge revenue requirement. Of course, LECs and their affiliates that provide interLATA interstate services each will have their own universal service obligations and, therefore, the affiliates will be required to recover their own universal service contributions.[2104]

831. Assessment of the Revenue Base for the High Cost and Low-Income Support Mechanisms. In addition to the recovery mechanisms discussed above, we also consider whether we should assess contributions to the universal service support mechanisms based solely on interstate revenues or on both interstate and intrastate revenues. To promote comity between the federal and state governments, we have decided to follow our approach to the recovery issues and thus to assess contributions for the high cost and low income support mechanisms based solely on interstate revenues. We have every reason to believe that the states will continue to participate fully in this federal-state partnership and that the contributions collected by both jurisdictions will be sufficient. As discussed above, we conclude that our assessment approach also is warranted because the states presently are reforming their own universal service programs.

832. The approach we adopt today is consistent with the approach taken by the Joint Board. Specifically, the Joint Board concluded that the "decision as to whether intrastate revenues should be used to support the high cost and low income assistance programs should be coordinated with the establishment of the scope and magnitude of the proxy-based fund, as well as with state universal service support mechanisms."[2105] Although the Joint Board may have anticipated that these decisions all would be made in this Order, the crux of the Joint Board's analysis is that the question of interstate/intrastate contribution should be coordinated with the issues of appropriate forward-looking mechanisms and appropriate revenue benchmarks.[2106] Because those issues will be resolved in the future, we believe it would be

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[2104] Section 272 of the 1996 Act provides that BOCs must provide in region interLATA services through a separate affiliate. 47 U.S.C. § 272(a). Previously, in the Competitive Carrier Fifth Report and Order, 98 FCC 2d 1191, 1198-99 n. 23 (1984), the Commission held that LECs must provide certain interstate services via affiliates or else be treated as a dominant carrier. The Commission recently reaffirmed this requirement. Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area and Policy and Rules Concerning the Interstate, Interexchange Marketplace, *Second Report and Order in CC Docket No. 96-149 and Third Report and Order in CC Docket No. 96-61*, CC Docket Nos. 96-149, 96-61, FCC 97-142 (rel. Apr. 18, 1997).

[2105] Recommended Decision, 12 FCC Rcd at 499.

[2106] Recommended Decision, 12 FCC Rcd at 501.

premature for us to assess contributions on intrastate as well as interstate revenues. Our approach also is consistent with the recent recommendations contained in the Majority State Members' Jurisdiction Report. That report recommended that the Commission assess contributions for all support mechanisms from intrastate and interstate revenues, but supported the Commission's present approach to assess only interstate revenues for the high cost mechanisms until a forward-looking cost methodology is developed.[2107] Given that two state members of the Joint Board dissented from the recommendation that we assess both interstate and intrastate revenues, we believe that it is in the public interest to proceed to assess only interstate revenues while a unified federal-state approach is developed for the high cost and low-income support mechanisms.

833. Our assessment procedure is as follows. Between January 1, 1998 and January 1, 1999, contributions for the existing high cost support mechanisms and low-income support programs will be assessed against interstate end-user telecommunications revenues.[2108] Beginning on January 1, 1999, the Commission will modify universal service assessments to fund 25 percent of the difference between cost of service defined by the applicable forward-looking economic cost method less the national benchmark, through a percentage contribution on interstate end-user telecommunications revenues. We have decided to institute this approach to assessment on January 1, 1999 to coordinate it with the shift of universal service support for rural, insular, and high cost areas served by large LECs from the access charge regime to the section 254 universal service mechanisms.

834. Our decision to provide 25 percent of the necessary support for high cost providers is consistent with Congress's mandate that universal service support "should be explicit."[2109] As explained in the Joint Explanatory Statement, Congress intended that, to the extent possible, "any support mechanisms continued or created under new section 254 should be explicit, rather than implicit as many support mechanisms are today."[2110] Beginning on January 1, 1999, we will convert the existing implicit support to an explicit 25 percent support. We do not, however, attempt to identify existing state-determined intrastate implicit universal service support presently effected through intrastate rates or other intrastate rules, nor do we attempt to convert such implicit intrastate support into explicit federal universal service support. Indeed, as discussed above, we have decided to respect the states' historical role and expertise in providing the additional, necessary amount of support and we leave it to

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[2107] Majority State Members' Jurisdiction Report at 2.

[2108] *See infra* section XIII.F for a discussion of the end-user telecommunications revenues method of assessing contributions. Following January 1, 1998, the new funding mechanism for high cost and low-income programs will supersede the current funding mechanism for those programs.

[2109] 47 U.S.C. 254(e).

[2110] Joint Explanatory Statement at 131.

the states to convert their own programs into explicit support mechanisms. As states do so, we will be able to assess whether additional federal universal service support is necessary to ensure that quality services remain "available at just, reasonable and affordable rates."[2111] For our programs for low-income consumers, established under the jurisdiction of sections 1, 4(i), and 201-205, we adopt an approach consistent with our historical support for Lifeline/LinkUp programs and provide support for Lifeline/LinkUp from state and federal sources. Therefore, we provide $3.50 in federal support for every Lifeline consumer, which will be for ILECs a waiver of the SLC, plus an additional $1.75 pending state commission approval of a reduction in state rates. In addition, assuming state commission approval of state rate reductions, we will provide $1.00 of support for every $2.00 of support provided by the states, up to a maximum of $7.00 of federal support.

835. We are aware that some commenters are concerned that our assessment approach may have certain administrative problems in that carriers may have an incentive to classify revenues as intrastate rather than interstate to avoid collection. We also are aware that the Joint Board did not want service providers to make business decisions based on their obligations to contribute to federal support mechanisms.[2112] We share these concerns and we hope that the states will work with us to address them. Specifically, we hope to minimize any administrative problems by encouraging a federal-state partnership whereby together the Commission and the states will assess the entirety of the support mechanisms (25 percent from federal and 75 percent from state mechanisms). We are however aware of the need to monitor the administration of the support mechanisms and we will monitor the collection and distribution processes to ensure that they do not produce inequitable results. We expect that the states and the Joint Board will do the same.

836. In response to COMSAT's comments, we clarify that carriers that provide interstate services must include all revenues derived from interstate and international telecommunications services. Thus, international telecommunications services billed to a domestic end user will be included in the contribution base of a carrier that provides interstate telecommunications services.[2113] Section 2(b) of the Act grants states the authority to regulate intrastate rates, but in contrast section 2(a) grants the Commission sole jurisdiction over interstate and foreign communications.[2114] Foreign communications are defined as a "communication or transmission from or to any place in the United States to or from a foreign

[2111] 47 U.S.C. 254(b)(1).

[2112] Recommended Decision, 12 FCC Rcd at 481-482.

[2113] Providers of interstate telecommunications required to contribute would include the revenues from international telecommunications billed to domestic end users.

[2114] 47 U.S.C. § 152(a) & (b).

country, or between a station in the United States and a mobile station located outside of the United States."[2115] We find that it would serve the public interest to require carriers providing interstate telecommunications services to base their contributions on revenues derived from their interstate and foreign or international telecommunications services. Contributors that provide international telecommunications services benefit from universal service because they must either terminate or originate telecommunications on the domestic PSTN. Therefore, we find that contributors that provide international telecommunications services should contribute to universal service on the basis of revenues derived from international communication services, although, as discussed above, revenues from communications between two international points would not be included in the revenue base.

c. Scope of the Revenue Base for the Support Mechanisms for Eligible Schools, Libraries, and Rural Health Care Providers

837. We adopt the Joint Board's recommendation that "universal support mechanisms for schools and libraries and rural health care providers be funded by contributions based on both the intrastate and interstate revenues of providers of interstate telecommunications services."[2116] We adopt this approach not only because the Joint Board recommended it, but also because the eligible schools, libraries, and rural health care mechanisms are new, unique support mechanisms that have not historically been supported through a universal service funding mechanism. Nonetheless, for now, we will provide for recovery of the entirety of these contributions via interstate mechanisms.

838. As with recovery of the amounts carriers contribute to the high cost and low-income support mechanisms, we have decided to permit recovery of contributions for the support mechanisms for eligible schools, libraries, and rural health care providers solely via rates for interstate services. Indeed, our rationale is even more compelling for the support mechanisms for eligible schools, libraries, and rural health care providers because those mechanisms will be supported based upon both intrastate and interstate revenues and, therefore, there is a heightened concern that carriers would recover the portion of their intrastate contributions attributable to intrastate services through increases in rates for basic residential dialtone service, contrary to the affordability principle contained in section 254(b)(1). Therefore, carriers may recover these contributions solely through rates for interstate services, in the same manner that they will recover their contributions to the high cost and low-income support mechanisms, as described above.

839. We find that our approach also minimizes any perceived jurisdictional difficulties under section 2(b) because we do not require carriers to seek state authorization to

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[2115] 47 U.S.C. § 153(17).

[2116] Recommended Decision, 12 FCC Rcd at 499.

recover the contributions attributable to intrastate revenues. Nonetheless, carriers with interstate revenues far less than their intrastate revenues assert that they will be required to recover unfairly large contributions from their interstate customers and that this outcome is inequitable.[2117] These carriers misinterpret the statute's direction that contributions be "equitable and non-discriminatory."[2118] "Equitable" does not mean "equal."[2119] In the past, telecommunications subsidies have been raised by assessing greater amounts from services other than basic residential dialtone services. Competition in the telecommunications marketplace, however, should drive prices for services closer to cost and eliminate the viability of shifting costs from residential to business or from basic local service to long distance. Congress did direct that contributions be non-discriminatory. This we accomplish by making the formula for calculating contributions the same for all competitors competing in the same market segment. Although a provider of business services may pay a greater contribution than a provider of residential service, the provider of business services pays contribution according to the same formula as other providers of business services. Similarly, simply because a provider has far more interstate than intrastate revenue does not make a formula based on interstate revenue discriminatory, provided the formula is the same for other providers of similar interstate services.

840. As to the assessment of contributions for the support mechanisms for eligible schools, libraries, and rural health care providers, the Commission is adopting the Joint Board's recommendation that these contributions be based upon both interstate and intrastate revenues.[2120] We have selected this approach because these are new and unique federal programs and states have not supported these initiatives to the same extent that they have supported other universal service support mechanisms. In contrast to the high cost mechanisms, many states do not already have programs in place that would guarantee

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[2117] Sprint comments at 7-9.

[2118] 47 U.S.C. § 254(b)(4).

[2119] Courts have recognized the "importance of treating parties alike when they participate in the same event or when the agency vacillates *without reason* in its application of a statute or the implementing regulations." *New Orleans Channel 20, Inc. v. FCC*, 830 F.2d 361, 366 (D.C. Cir. 1987) (emphasis added); *Melody Music, Inc. v. FCC*, 345 F.2d 730 (D.C. Cir. 1965).

[2120] Our approach also is consistent with the recent Majority State Members' Jurisdiction Report, which reiterated the Joint Board's recommendation that the Commission should assess contributions for the support mechanisms for eligible schools, libraries, and rural health care providers from interstate and intrastate revenues. Majority State Members' Jurisdiction Report at 2. Although two state members of the Joint Board dissented from this recommendation, *see* McClure/Schoenfelder Dissent, in contrast to the high cost and low-income support mechanisms where we are attempting to develop a unified approach, we conclude that notwithstanding this dissent it is important for the Commission to assess both interstate and intrastate revenues for the other support mechanisms because there are not in place sufficient state mechanisms to ensure that section 254's mandates are satisfied.

sufficient support mechanisms for eligible schools, libraries, and rural health care providers. Therefore, we are not as confident that a federal-state partnership would sufficiently support these new and unique support mechanisms, particularly in the early years of the program. Because section 254 obligates the Commission to ensure the sufficiency of this support program, we deem it necessary to adopt an approach that will guarantee that this statutory mandate is satisfied. In addition, assessing both intrastate and interstate revenues to fund the support mechanisms for eligible schools, libraries, and rural health care providers is more feasible than for the other mechanisms because the amount of the new support mechanisms will be smaller than the other mechanisms (i.e., the combined amounts of the federal and state high cost and low-income support mechanisms will be greater than the total amount of the schools, libraries, and rural health care mechanisms). Therefore, we believe that it is appropriate for us to assess a contributor based upon its intrastate and interstate revenues for the schools, libraries, and rural health care support mechanisms.

841. For the same reasons described above, we conclude that carriers that provide interstate services must include all revenues derived from interstate and international telecommunications services. Contributors that provide international telecommunications services benefit from universal service because they must either terminate or originate telecommunications on the domestic PSTN. Therefore, we find that contributors that provide international telecommunications services should contribute to universal service on the basis of revenues derived from those services.

F. Basis for Assessing Contributions

1. Background

842. Section 254(d) states that "[e]very telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to the specific, predictable, and sufficient mechanisms established by the Commission to preserve and advance universal service."[2121] In the NPRM, the Commission suggested three different bases for calculating contributions to the universal service mechanisms established by the Commission: gross revenues; gross revenues net of payments to other carriers for telecommunications services (net telecommunications revenues); and per-line or per-minute charges.[2122] The Commission invited comment on the relative merits of these methods and the extent to which they satisfy the requirements of the Act.[2123] The Commission also sought comment on any other alternative methodologies for calculating a carrier's or service

[2121] 47 U.S.C. § 254(d). *See also* 47 U.S.C. § 254(b)(4).

[2122] NPRM at paras. 122-125.

[2123] NPRM at para. 125.

provider's contribution to universal service support. The Commission instructed commenters to address which method would be the most easily administered and competitively neutral, taking into account the possibility that the Commission could require non-carrier providers of telecommunications services to contribute.[2124] The Joint Board recommended that contributions be based on gross revenues derived from telecommunications services net of payments to other carriers for telecommunications services because that method would eliminate the double payment problem,[2125] would assess contributions on a value-added basis, and is familiar to the Commission and the industry.[2126]

2. Discussion

843. We agree with the Joint Board's recommendation that we must assess contributions in a manner that eliminates the double payment problem, is competitively neutral and is easy to administer.[2127] To address the Joint Board's concerns, we find that contributions should be based on end-user telecommunications revenues. Based on new information in the record, we find that this basis for assessing contributions represents a basis for our universal service support mechanisms more administratively efficient than the net telecommunications revenues method recommended by the Joint Board while still advancing the goals embraced by the Joint Board. We note that we will assess contributions, i.e., raise sufficient funds to cover universal service's funding needs, only after we have determined the total size of the support mechanisms.

844. We will assess contributions based on telecommunications revenues derived from end users for several reasons, including administrative ease and competitive neutrality. The net telecommunications revenues and end-user telecommunications revenues methods are relatively equivalent because they assess contributions based on substantially similar pools of revenues.[2128] Therefore, we conclude that contributions will be based on revenues derived from end users for telecommunications and telecommunications services, or "retail revenues." Unlike retail revenues, however, end-user telecommunications revenues include revenues derived from SLCs. End-user revenues would also include revenues derived from other carriers when such carriers utilize telecommunications services for their own internal uses because such carriers would be end users for those services. This methodology is both competitively neutral and relatively easy to administer.

[2124] NPRM at paras. 122-126.

[2125] *See* section XIII.F.2, *infra* for a description of the double payment problem.

[2126] Recommended Decision, 12 FCC Rcd at 495.

[2127] Recommended Decision, 12 FCC Rcd at 495.

[2128] *See* Sprint comments at 9-10.

845. Basing contributions on end-user revenues, rather than gross revenues, is competitively neutral because it eliminates the problem of counting revenues derived from the same services twice. The double counting of revenues distorts competition because it disadvantages resellers. For example, assuming a 10 percent contribution rate on gross revenues, if facilities-based carrier X sells $200.00 worth of telecommunications services directly to a customer, its contribution will be $20.00. If reseller B buys $180.00 worth of wholesale services from carrier A and B sells the same retail services in competition with X after adding $20.00 of value, B would owe a contribution of $20.00 on these $200 worth of services, but B would also be required to recover the portion of the $18.00 contribution that A must make and would likely pass on to B. Therefore, while X would face $200.00 in service costs and $20.00 in support costs, B would face $200.00 in service costs and almost certainly substantially more than $20.00 in support costs. Adding another reseller to the A-B chain would compound this problem.

846. Assuming carriers will pass on some portion of the cost of contribution to their customers, the reseller, like B in the above example, that sells to end users will be disadvantaged vis-a-vis non-resellers of the same retail service, like X, because of this double-counting problem. We seek to avoid a contribution assessment methodology that distorts how carriers choose to structure their businesses or the types of services that they provide. Basing contributions on end-user revenues eliminates the double-counting problem and the market distortions assessments based on gross revenues create because transactions are only counted once at the end-user level. Although it will relieve wholesale carriers from contributing directly to the support mechanisms, the end-user method does not exclude wholesale revenues from the contribution base of carriers that sell to end users because wholesale charges are built into retail rates.

847. Consequently, we agree with the Joint Board's finding that basing contributions on gross telecommunications revenues creates a double-payment problem for resold services and thus is not competitively neutral, as discussed above. Therefore, like the Joint Board, we reject basing contributions on gross telecommunications revenues because that method is not consistent with the Joint Board's principle of competitive neutrality.

848. Calculating assessments based upon end-user telecommunications revenues also will be administratively easy to implement. Like the net telecommunications revenues approach, the end-user telecommunications revenues approach will require carriers to track their sales to end users; carriers, however, must already track their sales for billing purposes. Although the end-user telecommunications revenues method will require carriers to distinguish sales to end users from sales to resellers, we do not foresee that this will be difficult because resellers will have an incentive to notify wholesalers that they are purchasing services for resale in order to get a lower price that does not reflect universal service contribution requirements. Although the end-user telecommunications revenues approach requires that a distinction be made between retail and wholesale revenues, using end-user

telecommunications revenues will still be easier to administer and less burdensome than the net telecommunications revenues approach because it will not require wholesale carriers to submit annual or monthly contributions directly to the administrator, as they would under the net telecommunications revenues approach. If wholesale carriers were required to make direct contributions based on their net telecommunications revenues, we would anticipate that they would try to pass that cost on to their carrier customers that provide retail services. Finally, although the Commission does not currently collect data regarding end-user telecommunications revenues, we are confident of our ability to develop a database of such information relatively quickly. In addition, we find that the Commission will be able to identify inaccurate end-user-revenue filings based on revenue information in our existing databases.

849. Another reason we adopt an end-user telecommunications revenues method of assessing contributions rather than a net telecommunications revenues method is that, although the two methods are theoretically equivalent, the former method eliminates some economic distortions associated with the latter method that can occur in practice. As an initial matter, we observe that, contrary to some commenters' assertions, both methods are competitively neutral because they both eliminate double-counting of revenues and assess the same total amount of contributions. This is illustrated best with an example. Assume an IXC earned $100.00 in long distance revenues and paid $40.00 to a LEC in access charges. Assuming a hypothetical 10 percent contribution rate, under the end-user telecommunications revenues method, the IXC would be required to contribute $10.00 and the LEC would contribute nothing because it has no end-user telecommunications revenues. Under the net telecommunications revenues approach, the LEC would be required to contribute $4.00, and the IXC $6.00. Thus, under either method, the Commission would collect $10.00 in universal service contributions.

850. Although the two assessment methods are theoretically equivalent, we conclude that, in practice, the net telecommunications revenues approach is likely to cause distortions that could be avoided by using the end-user telecommunications revenues approach. For example, the theoretical equivalence of the two methods assumes that all carriers will be able to recover fully their contributions from their customers. Some carriers, however, particularly those with long-term contracts, may be unable to recover fully those costs. If contributions are assessed on the basis of net telecommunications revenues and some intermediate carriers cannot incorporate their contributions into their prices, uneconomic substitution could result because other carriers would have an incentive to purchase services from those intermediate carriers, rather than to provide those services with their own facilities, to reduce their direct contribution to universal service. Basing contributions on end-user telecommunications revenues eliminates this potential economic distortion because contributions will be assessed at the end-user level, not at the wholesale and end-user level. Contributors will not have more of an incentive to build their own facilities or purchase services for resale in order to reduce their contribution because, regardless of how the services are provided, their

contributions will be assessed only on revenues derived from end users.

851. In response to PacTel's request that the Commission clarify the Joint Board's discussion of universal service contributions and unbundled network elements,[2129] we state that ILECs are prohibited from incorporating universal service support into rates for unbundled network elements because universal service contributions are not part of the forward-looking costs of providing unbundled network elements.[2130] Although we do not mandate that carriers recover contributions in a particular manner, we note that carriers are permitted to pass through their contribution requirements to all of their customers of interstate services in an equitable and nondiscriminatory fashion.[2131] Furthermore, we find that universal service contributions constitute a sufficient public interest rationale to justify contract adjustments.[2132] Section 254 gives the Commission authority to require new contributions to the universal service support mechanisms from telecommunications carriers that provide interstate telecommunications services and other providers of interstate telecommunications. As discussed above, contributions will be assessed against revenues derived from end users for telecommunications or telecommunications services. Some of those revenues will be derived from private contractual agreements. By assessing a new contribution requirement, we create an expense or cost of doing business that was not anticipated at the time contracts were signed. Thus, we find that it would serve the public interest to allow telecommunications carriers and providers to make changes to existing contracts for service in order to adjust for this new cost of doing business. We clarify, however, that this finding is not intended to pre-empt state contract laws.

852. We do not adopt commenters' suggestions that contributions be calculated entirely on non-revenues-based measures, such as a per-minute or per-line basis at this time.[2133] We affirm the Joint Board's recommendation that such mechanisms would require the Commission to adopt and administer difficult "equivalency ratios" for calculating the

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[2129] PacTel comments at 26-27.

[2130] *See also Local Competition Order,* 11 FCC Rcd at 15860-15861. We note that the pricing provisions of the *Local Competition Order* are subject to a partial stay. *See supra* note 7.

[2131] For further discussion of recovery issues, *see infra* section XIII.F.

[2132] *See United Gas Pipe Line Co. v. Mobile Gas Service Corp,* 350 U.S. 332 (1956) (finding that gas companies cannot change contract prices at will but the Federal Power Commission can authorize rate increases if it finds contract rates to conflict with the public interest).

[2133] *See, e.g.*, APC comments at 9; Aerial comments at 2-3 (basing on per-line or number of dialable numbers is easily quantifiable and understood); Broadband PCS Alliance comments at 2-3 (arguing in favor of a charge based on number of lines); Sprint PCS comments at 10-11 (arguing in favor of a charge based on the number of subscribers served); AirTouch reply comments at 15-16 (arguing in favor of a charge based on each access line).

contributions of carriers that do not offer services on a per-line or per-minute basis.[2134] As competition changes the telecommunications marketplace, carriers may increasingly offer bundled services for flat-rate monthly charges. It would be administratively difficult to calculate an equivalent per-minute contribution for carriers that do not charge customers on a per-minute basis. In addition, we find that these approaches are not competitively neutral because they may inadvertently favor certain services or providers over others if the "equivalency ratios" are improperly calculated or inaccurate.

853. Furthermore, we agree with the Joint Board and reject commenters' suggestions that the Commission mandate that carriers recover contributions through an end-user surcharge.[2135] The state Joint Board members also assert that state commissions "should have the discretion to determine if the imposition of an end-user surcharge would render local rates unaffordable."[2136] A federally prescribed end-user surcharge would dictate how carriers recover their contribution obligations and would violate Congress's mandate and the wish of the state members of the Joint Board.[2137] The state Joint Board members add that it would be "premature" to judge how carriers in the telecommunications market would choose to recover their contributions during the transition to competitive markets.[2138] We agree with the state members and CPI that we should allow carriers the flexibility to decide how they should recover their contribution.[2139] As telecommunications carriers and providers begin merging telecommunications products into single offerings, for example package prices for local and long distance service, we anticipate that they will offer bundled services and new pricing options. Mandating recovery through an end-user surcharge would eliminate carriers' pricing flexibility to the detriment of consumers.

854. In summary, we find the end-user telecommunications revenues approach to be

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[2134] *See* Recommended Decision, 12 FCC Rcd at 496.

[2135] *See, e.g.*, ALLTEL comments at 8; Ameritech comments at 31; AT&T comments at 8; BellSouth comments at 15-16; California Department of Consumer Affairs comments at 38-40; GTE comments at 36; LCI comments at 14; MFS comments at 112-13; NYNEX comments at 23-24; PacTel comments at 20-23; PageNet comments at 16; RTC comments at 35-36; SBC comments at 11-14; TDS comments at 6-8; U S West comments at 45-46; USTA comments at 22; WorldCom comments at 40-41; ACTA reply comments at 6; AirTouch reply comments at 20-21; ALTS reply comments at 5-8; BANX joint reply comments at 2-3; California SBA reply comments at 4-5; KMC reply comments at 4; SBC reply comments at 2-3.

[2136] State Members of the Federal-State Joint Board on Universal Service Comments on Recovery Mechanism for Universal Service Contributions, dated April 8, 1997, at 1 (*State Contributions Comments*).

[2137] *State Contribution Comments* at 1.

[2138] *State Contributions Comments* at 1.

[2139] CPI reply comments at 15-17.

more consistent with our principle of competitive neutrality than the gross revenues approach and easier to administer than the net telecommunications revenues approach. In addition, we agree with the state Joint Board members that an end-user surcharge is not necessary to ensure that contributions be explicit.[2140] We find that basing contributions on end-user telecommunications revenues satisfies the statutory requirement that support be explicit because carriers will know exactly how much they are contributing to the support mechanisms. Carriers will calculate their contributions by multiplying their end-user revenues by the universal service contribution percentage announced by the Commission or administrator, so there will be no ambiguity regarding the cost associated with the preservation and advancement of universal service.

855. To the extent that carriers seek to pass all or part of their contributions on to their customers in customer bills, we wish to ensure that carriers include complete and truthful information regarding the contribution amount. We do not assume that contributors will provide false or misleading statements, but we are concerned that consumers receive complete information regarding the nature of the universal service contribution.[2141] Unlike the SLC,[2142] the universal service contribution is not a federally mandated direct end-user surcharge. We believe that it would be misleading for a carrier to characterize its contribution as a surcharge. Specifically, we believe that characterizing the mechanism as a surcharge would be misleading because carriers retain the flexibility to structure their recovery of the costs of universal service in many ways, including creating new pricing plans subject to monthly fees. As competition intensifies in the markets for local and interexchange services in the wake of the 1996 Act, it will likely lessen the ability of carriers and other providers of telecommunications to pass through to customers some or all of the former's contribution to the universal service mechanisms. If contributors, however, choose to pass through part of their contributions and to specify that fact on customers' bills, contributors must be careful to convey information in a manner that does not mislead by omitting important information that indicates that the contributor has chosen to pass through the contribution or part of the contribution to its customers and that accurately describes the nature of the charge.

856. In addition, we agree with the Joint Board and TCA, which recommend that, if carriers provide services eligible for support from universal service support mechanisms at a

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[2140] *State Contributions Comments* at 2.

[2141] *See Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council*, 425 U.S. 748, 761 (1976). *See also Zauderer v. Office of Disciplinary Counsel of the Supreme Court of Ohio*, __ U.S. __, 105 S. Ct. 2265, 2281 (1985) (State may seek to prevent potential deception by requiring attorneys to disclose in their advertising certain factual information regarding fee arrangements); *see generally 44 Liquormart, Inc. v. Rhode Island*, __ U.S. __, 116 S. Ct. 1495, 1505 (1996).

[2142] *See* MTS and WATS Market Structure, *Third Report and Order*, 93 FCC 2d 241, *modified on recon.*, *Memorandum Opinion and Order*, 97 FCC 2d 682 (1983).

discount or below cost, carriers may receive credits against their contributions.[2143] Contributions to the support mechanisms may be made in cash. In addition, carriers that provide services to eligible schools, libraries, or rural health care providers may offset their required contribution by an amount equal to the difference between the pre-discount price for service and the amount charged to the eligible institution. Allowing or requiring an offset will not prevent carriers from recovering the full, pre-offset contribution due on its revenues in the manner in which the carrier chooses.

857. Finally, we agree with SNET that carriers should not include support mechanisms payments when calculating their contributions.[2144] We find that payments received from the universal service support mechanisms do not qualify as revenues derived from end users for telecommunications revenues and should not be included in the assessment base. Finally, in response to Excel's comments that resellers should receive credits against their universal service contributions for the provision of supported services,[2145] we note that "pure" resellers may not be designated as "eligible carriers" under section 214(e) and may not receive universal service support payments.[2146] Carriers selling supported services to resellers, however, may be eligible to receive universal service support. In addition, carriers that offer supported services through the use of unbundled network elements, in whole or in part, may be eligible to receive universal service support.

G. Administrator of the Support Mechanisms

1. Background

858. In the NPRM, the Commission sought comment on the best way to assure that administration of the universal service support mechanisms is fair, consistent, and efficient. The Commission suggested that the support mechanisms could be administered by a non-governmental entity and stated that any administrator should be required to operate in an efficient, fair, and competitively neutral manner. Furthermore, the Commission explained that the administrator would be required to process information and databases on a large scale, to calculate the correct amount of each carrier's contribution and to apply eligibility criteria consistently so that only carriers eligible for support are drawing funds from the support mechanism. The Commission asked commenters to discuss these criteria and any others the Commission might use to assess qualifications of any candidates, for how long an

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[2143] TCA comments at 9.

[2144] SNET comments at 4.

[2145] Excel comments at 15-16.

[2146] 47 U.S.C. § 214(e). *See supra* section XI.B.2.b.

administrator should serve, and any other matters related to the selection and appointment of an administrator. The Commission also invited parties to suggest the most efficient and least costly methods to accomplish the administrative tasks associated with administration.[2147]

859. The Commission additionally sought comment on whether universal service support could be collected and distributed by state PUCs. This approach would make individual state commissions or groups of state commissions responsible for administering the collection and distribution of funds, operating under plans approved by the Commission. The NPRM suggested that state PUCs might delegate the administration of funds to a governing board composed of representatives from the state commissions, the contributing carriers, and support recipients. This board could also function as a central clearinghouse to the extent collection and distribution issues extended beyond the boundaries of individual states. The Commission requested comment on this alternative approach and on what provisions should be incorporated in any plan that the Commission approves for administration under this option. The Commission also invited proposals for other ways to administer the support mechanisms.[2148] Pursuant to the Act's principle that support for universal service should be "predictable,"[2149] the Commission also sought comment estimating the cost of administration using either of the two approaches that it proposed. Commenters proposing an alternative method were asked to identify the costs of administration associated with their proposals.[2150]

860. The Joint Board recommended that the Commission, pursuant to the Federal Advisory Committee Act (FACA),[2151] create a universal service advisory board to select and oversee a neutral, third-party administrator of the support mechanism.[2152] The Joint Board recommended that NECA not be automatically appointed the permanent administrator because it found NECA's membership, Board of Directors, and advocacy in Commission proceedings projected the appearance of bias towards ILECs. It also recommended, however, that the Commission take any necessary actions to allow NECA to render itself a neutral, third party.[2153] Finally, the Joint Board recommended that NECA be appointed the temporary administrator of the support mechanisms after its governance was made more representative of

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[2147] NPRM at paras. 128-129.

[2148] NPRM at para. 130.

[2149] 47 U.S.C. § 254(b)(5).

[2150] NPRM at para. 131.

[2151] 5 U.S.C., App. § 4(a) and 3(2)(C).

[2152] Recommended Decision, 12 FCC Rcd at 505.

[2153] Recommended Decision, 12 FCC Rcd at 506.

non-ILEC interests.

2. Discussion

861. Based on the Joint Board's recommendation and the record in this proceeding, we will create a Federal Advisory Committee (Committee), pursuant to the FACA,[2154] whose sole responsibility will be to recommend to the Commission through a competitive process a neutral, third-party administrator to administer the support mechanisms. Given the potential difficulties of coordinating all aspects of the support mechanisms, we adopt the Joint Board's recommendation and conclude that administration by a central administrator would be most efficient and would ensure uniform application of the rules governing the collection and distribution of funding for universal service support mechanisms nationwide. We also adopt the Joint Board's recommendation that NECA be appointed the temporary administrator of the support mechanisms.[2155]

862. Like the Joint Board, we believe that broad participation by representatives of contributors, support recipients, state PUCs, and other interested parties in the administrator selection process, as required by the FACA, will eliminate concerns that the chosen administrator will not be neutral. A Federal Advisory Committee may be established only after consultation with the Office of Management and Budget and the General Services Administration and the filing of a charter with Congress.[2156] The Commission has initiated this process and will solicit nominations to the Committee as soon as possible.

863. We agree with the Joint Board's recommendation and adopt their four proposed requirements. As a result, the administrator must: (1) be neutral and impartial; (2) not advocate specific positions to the Commission in proceedings not related to the administration of the universal service support mechanisms; (3) not be aligned or associated with any particular industry segment; and (4) not have a direct financial interest in the support mechanisms established by the Commission.[2157]

864. We clarify the Joint Board's criteria as follows. First, the administrator must not advocate positions before the Commission in non-universal service administration proceedings related to common carrier issues, although membership in a trade association that advocates positions before the Commission will not render an entity ineligible to serve as the

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[2154] 5 U.S.C., App. §§ 4(a) and 3(2)(C).

[2155] Recommended Decision, 12 FCC Rcd at 506.

[2156] 5 U.S.C., App. §§ 4(a) and 3(2)(C).

[2157] Recommended Decision, 12 FCC Rcd at 505.

administrator. Second, the administrator may not be an affiliate of any provider of "telecommunications services."[2158] An “affiliate” is a "person that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with, another person."[2159] A person shall be deemed to control another if such person possesses, directly or indirectly, (1) an equity interest by stock, partnership (general or limited) interest, joint venture participation, or member interest in the other person equal to ten (10%) percent or more of the total outstanding equity interests in the other person, or (2) the power to vote ten (10%) percent or more of the securities (by stock, partnership (general or limited) interest, joint venture participation, or member interest) having ordinary voting power for the election of directors, general partner, or management of such other person, or (3) the power to direct or cause the direction of the management and policies of such other person, whether through the ownership of or right to vote, voting rights attributable to the stock, partnership (general or limited) interest, joint venture participation, or member interest) of such other person, by contract (including but not limited to stockholder agreement, partnership ((general or limited)) agreement, joint venture agreement, or operating agreement), or otherwise.[2160] Third, the administrator and any affiliate thereof may not issue a majority[2161] of its debt[2162] to, nor may it derive a majority of its revenues from any provider(s) of telecommunications services. Fourth, if the administrator has a Board of Directors that contains members with direct financial interests in entities that contribute to or benefit from the support mechanisms, no more than a third of the Board members may represent interests from any one segment of contributing carriers or support recipients, and the Board's composition must reflect the broad base of contributors to and recipients of universal service support. An individual does not have a direct financial interest in the support mechanisms if he or she is not an employee of a telecommunications carrier, provider of telecommunications, or a recipient of support mechanisms funds, does not own equity interests in bonds or equity instruments issued by any telecommunications carrier, and does not own mutual funds that specialize in the telecommunications industry. We also create a *de minimis* exemption from this rule. We will define an individual's ownership interest in the telecommunications industry as *de minimis* if in aggregate the individual, spouse, and minor children's impermissible interests do not exceed

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[2158] 47 U.S.C. § 153(46).

[2159] 47 U.S.C. § 153(1).

[2160] *See* North American Numbering Council, *North American Numbering Plan Administration Requirements Document* (rel. Feb. 20, 1997).

[2161] A "majority" shall mean greater than 50 percent.

[2162] "Debt" shall mean bonds, securities, notes, loans or any other instrument of indebtedness.

$5,000.00.[2163]

865. The size of the support mechanisms and the broad base of contributors and support recipients make a neutral administrator essential to the equitable and nondiscriminatory administration of the support mechanisms. To ensure the administrator's neutrality and appearance of neutrality, we conclude that we must require that no one in a position of influence within the administrator's organization have a direct financial interest in the support mechanisms, subject to the Board of Directors' standard above. As several commenters to the Recommended Decision note, any candidate must also have the ability to process large amounts of data efficiently and quickly and to bill large numbers of carriers.[2164] The administrator's costs will be added to the support mechanisms and will be funded by the contributing carriers.

866. Even though NECA has administered the existing high cost assistance fund and the TRS fund, many commenters question NECA's ability to act as a neutral arbitrator among contributing carriers because NECA's membership is restricted to ILECs, its Board of Directors is composed primarily of representatives of ILECs, and it has taken advocacy positions in several Commission proceedings.[2165] Given that the appearance of impartiality for the new administrator is essential, and considering the importance and magnitude of the universal service support programs, we agree with the Joint Board and find that NECA would not be qualified to be the permanent administrator.[2166] If, however, changes to its Board of Directors or its corporate structure render it able to satisfy the neutrality criteria discussed above, NECA would be permitted to participate in the permanent administrator selection process. Finally, in the interest of speedy implementation of the support mechanisms, we adopt the Joint Board's recommendation that NECA be appointed the temporary administrator of the support mechanisms, subject to changes in NECA's governance that render it more representative of non-ILEC interests.[2167] We note that the temporary administrator may not spend universal service support mechanisms' funds until it is appointed by the Commission.

[2163] *See* 5 C.F.R. § 2640.202. This Office of Government Ethics rule defines a *de minimis* security interest as an amount not exceeding $5,000.00.

[2164] Recommended Decision, 12 FCC Rcd at 503. *See* Illinois CC NPRM comments at 10-11; NCTA NPRM comments at 25.

[2165] *See* Recommended Decision, 12 FCC Rcd at 506. *See also* ALTS comments at 18-19; Sprint comments at 10-11; Telco comments at 13; Ameritech reply comments at 7.

[2166] Recommended Decision, 12 FCC Rcd at 506.

[2167] We note that the Commission has initiated a rulemaking regarding making changes to NECA's governance. *See* Changes to the Board of Directors of the National Exchange Carrier Association, Inc., *Notice of Proposed Rulemaking and Notice of Inquiry*, CC Docket No. 97-21, FCC 97-2 (rel. Jan. 10, 1997).

H. Implementation

867. Because implementation of the new universal service support mechanisms is extremely important to the nation, we require in this Order that the Committee recommend a neutral, third-party administrator through a competitive process no later than six months after the Committee's first meeting. Within the six-month period, the Committee must create a document describing what the administrator of the support mechanisms will be required to do and the criteria by which candidates will be evaluated, solicit applications from qualifying entities, and recommend the most qualified candidate. We intend to act upon the Committee's recommendation within six months. The administrator will be appointed for a five-year term, beginning on the date that the Commission selects it as the administrator. We also require the chosen administrator to be prepared to administer all facets of the universal service support mechanisms within six months of its appointment. The Commission will review the administrator's performance to ensure that it is fulfilling its responsibilities in an acceptable and impartial manner two years after its appointment. At any time prior to the end of the administrator's five-year term, the Commission may re-appoint the administrator for up to another five years. Otherwise, the Commission will create another Federal Advisory Committee to recommend another neutral, third-party administrator.

868. The Commission will direct the chosen administrator to report annually to the Commission an itemization of monthly administrative costs that shall consist of all expenses, receipts, and payments associated with the administration of the universal service support mechanisms. The administrator shall file a cost allocation manual (CAM)[2168] with the Commission, and shall provide the Commission full access to all data collected pursuant to the administration of the universal service support mechanisms. We further require that the administrator shall be subject to a yearly audit by an independent accounting firm and an additional yearly audit by the Commission, if the Commission so requests. The administrator is further required to keep the universal service support mechanisms separate from all other funds under the control of the administrator.

869. The administrator is directed to maintain and report to the Commission detailed records relating to the determination and amounts of payments made and monies received in the universal service support mechanisms. Information based on these reports should be made public at least once a year as part of a Monitoring Report. Because the current Monitoring Program in CC Docket No. 87-339, which monitors the current Universal Service Fund, will

[2168] This manual will describe the accounts and procedures the administrator will use to segregate and allocate the costs of administering the support mechanisms from its other operations.

end with the May 1997 report[2169] and because NARUC has petitioned the Commission to continue this Monitoring Program,[2170] we delegate to the Common Carrier Bureau, in consultation with the state staffs of the Joint Boards in CC Docket No. 96-45 and CC Docket No. 80-286, the creation of a new monitoring program to serve as a vehicle for these Monitoring Reports. We also delegate to the Bureau the details of the exact content and timing of release of these reports.

[2169] Amendment of Part 36 of the Commission's Rules and Establishment of a Joint Board, Establishment of a Program to Monitor the Impact of Joint Board Decisions, *Order*, 7 FCC Rcd 4285-4288, 4541.

[2170] NARUC, Resolution No. 4, February 26, 1997.

XIV. FINAL REGULATORY FLEXIBILITY ANALYSIS

870. As required by Section 603 of the Regulatory Flexibility Act (RFA), 5 U.S.C. § 603, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the Notice of Proposed Rulemaking and Order Establishing Joint Board.[2171] In addition, the Commission prepared an IFRA in conjunction with the Recommended Decision, seeking written public comment on the proposals in the NPRM and Recommended Decision.[2172] The Commission's Final Regulatory Flexibility Analysis (FRFA) in this Report and Order conforms to the RFA, as amended.[2173]

871. To the extent that any statement contained in this FRFA is perceived as creating ambiguity with respect to our rules or statements made in preceding sections of this Order, the rules and statements set forth in those preceding sections shall be controlling. We also note that future revisions of the rules may alter our analysis of the potential economic impact upon some small entities.

A. Need for and Objectives of this Report and Order and the Rules Adopted Herein.

872. The Commission is required by sections 254(a)(2) and 410(c) of the Act, as amended by the 1996 Act, to promulgate these rules to implement promptly the universal service provisions of section 254. The principal goal of these rules is to reform our system of universal service support mechanisms so that universal service is preserved and advanced as markets move toward competition.

873. The rules adopted in this Order establish universal service support mechanisms to preserve and advance universal service support. The rules are designed to implement as quickly and effectively as possible the national telecommunications policies embodied in the 1996 Act and to promote access to advanced telecommunications and information technologies to all Americans in all regions of the nation. In formulating these rules, we are mindful of the balance that Congress struck between the goal of bringing the benefits of competition to consumers and the concern for the impact of the 1996 Act on small business entities, particularly small, rural telephone carriers, as evidenced by the way section 214(e)(2)

[2171] NPRM at paras. 135-142.

[2172] 61 Fed. Reg. 63,778, 63,796 (1996).

[2173] *See* 5 U.S.C. § 604. The Regulatory Flexibility Act, 5 U.S.C. § 601 *et seq.*, was amended by the "Small Business Regulatory Enforcement Fairness Act of 1996" (SBREFA), Subtitle II of the Contract with America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA).

designates carriers eligible to receive universal service support.[2174] Section 214(e)(2) provides that, "the State commission *may*, in the case of an area served by a rural telephone company, and *shall*, in the case of all other areas, designate more than one common carrier for a service area designated by the State commission . . . ."[2175]

B. Summary and Analysis of the Significant Issues Raised by Public Comments in Response to the IRFA.

874. Summary of the Initial Regulatory Flexibility Analysis. The Commission performed an IRFA in the NPRM[2176] and an IRFA in connection with the Recommended Decision.[2177] In the IRFAs, the Commission sought comment on possible exemptions from the proposed rules for small telecommunications companies and measures to avoid significant economic impact on small business entities, as defined by section 601(3) of the RFA.[2178] The Commission also sought comment on the type and number of small entities, such as schools, libraries, and health care providers, potentially affected by the recommendations set forth in the Recommended Decision.[2179]

1. Comments

875. General Comments. Comments were filed in response to both the NPRM and Recommended Decision IRFAs. Although it agrees that no IRFA was required for the Recommended Decision,[2180] the SBA contends that the IRFA issued in connection with the Recommended Decision was untimely and did not adequately take into consideration the impact of the Joint Board recommendations upon small entities.[2181] The SBA also contends that the NPRM's lack of specificity concerning rules and reporting requirements made it difficult to evaluate the impact upon small business.[2182] Small Cable II acknowledges the

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[2174] *See* 47 U.S.C. § 214(e)(2).

[2175] 47 U.S.C. § 214(e)(2) (emphasis added).

[2176] NPRM at paras. 135-142.

[2177] 61 Fed. Reg. at 63,796.

[2178] NPRM at para. 142.

[2179] 61 Fed. Reg. at 63,799.

[2180] SBA comments at 24.

[2181] SBA reply comments at 7.

[2182] SBA NPRM comments at 12.

Commission's effort to reduce the cost of compliance and avoid significant economic impact upon small entities.[2183]

876. Businesses with Single Connections. Many commenters oppose the recommendation to reduce universal service support for businesses with single connections.[2184] The SBA contends that reduced levels of support would discourage or prohibit small businesses from utilizing telecommunications services.[2185] The SBA also contends that the Joint Board's recommendation to restrict support to businesses with a single connection effectively would define a small business in violation of the Small Business Act.[2186] The SBA proposes that entities with $5 million or less in annual gross revenue be exempt from any reduction of universal service support and that all other businesses receive support for up to five lines.[2187] The SBA asserts that restricting support to a single connection would adversely affect small government jurisdictions, including fire and police departments, that currently receive full universal service support.[2188] Some commenters contend that universal service support should not be extended to any business customers.[2189] They assert that Congress did not intend to provide such support to businesses,[2190] that there is no evidence that businesses are in need of such support,[2191] and that such support will create the need for unduly large contributions to the support mechanisms.[2192]

877. Businesses with Multiple Connections. Several commenters contend that

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[2183] Small Cable II reply comments at ii.

[2184] *See, e.g.*, CNMI comments at 27; SBA comments at 10-11; Tularosa Basin Tel. comments at 9; United Utilities comments at 5. *See infra* section IV.

[2185] SBA comments at 10-11.

[2186] SBA April 4 *ex parte* at 4.

[2187] SBA April 4 *ex parte* at 11-12.

[2188] SBA April 4 *ex parte* at 13-14.

[2189] *See, e.g.*, Ameritech comments at 7; Kentucky PSC comments at 4; Maryland PSC comments at 9; Sprint comments at 14-15; Teleport comments at 3-4. *See infra* section IV.

[2190] Kentucky PSC comments at 4.

[2191] AirTouch comments at 21; Sprint comments at 14-15.

[2192] Kentucky PSC comments at 4; Maryland PSC comments at 9.

universal service support should be extended to businesses with multiple connections.[2193] They cite the importance of multiple-connections for small businesses, the potential negative impact upon rural areas of excluding such support, and the principles of the Act that provide for affordable access to telecommunications services to all consumers, including reasonably comparable rates and access by rural consumers to telecommunications services.[2194] The SBA cites the vulnerability of small businesses to substantial rate increases.[2195] The SBA contends that the Recommended Decision construes the reference to "consumers" in section 254(b)(3) too narrowly by excluding support to small businesses.[2196] The SBA also contends that exclusion of universal service support for small businesses would violate the universal service mandate that rates be affordable and discourage access to advanced telecommunications services by small businesses.[2197]

878. Forward-Looking Cost Methodology. A few commenters state that forward-looking cost methodologies may not have the ability to accurately predict costs for small, rural telephone companies.[2198] Others contend that small, rural carriers in the continental United States should be exempt from forward-looking cost methodologies in the same manner as Alaska and insular areas because they face similar challenges.[2199]

879. Schools and Libraries. In response to the NPRM IRFA, NSBA II comments that the proposals in the NPRM would have a significant effect on a substantial number of small government entities, including 38,000 small government jurisdictions with school and library districts, in addition to the "small telecommunications service providers" mentioned in the NPRM, and the SBA reiterates these concerns in its general comments to the NPRM.[2200] NSBA II also contends that certain small entities, such as private schools and libraries may

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[2193] *See, e.g.*, California SBA comments at 10; GVNW comments at 7; SBA comments at 7-10; Western Alliance comments at 21-22. *See infra* section IV.

[2194] *See, e.g.*, California SBA comments at 10-11; Iowa Utilities Board comments at 5; SBA comments at 2-3, 7-10, 15-18; Western Alliance comments at 21-22; RTC reply comments at 25; TDS Telecom. reply comments at 3.

[2195] SBA reply comments at 4-5.

[2196] SBA comments at 4-7.

[2197] SBA comments at 15-20.

[2198] *See, e.g.*, Harris comments at 4; Iowa Utilities Board comments at 3-4; John Staurulakis comments at 11-15. *See infra* section VII.

[2199] TCA comments at 7. *See infra* section VII.

[2200] NSBA II NPRM comments at 2-3; SBA NPRM comments at 11-12.

also be affected under the proposed rules.[2201] It contends that the bona fide request for service and applicable procedures may result in significant paperwork burdens on small government agencies and that restrictions on the resale or transfer of telecommunications services and network capacity may impose significant fiscal burdens on schools and libraries.[2202] In response to the Recommended Decision, Vermont PSB contends that a waiver from the processing and reporting requirements should be adopted for schools and libraries with fewer than 10 lines to avoid discouraging such organizations from applying for available discounts.[2203]

880. Some commenters contend that any entity that provides eligible services to a school or library should be eligible for universal service support.[2204] They state that such eligibility is provided under section 254(h) and that Congress sought to expand deployment of telecommunications and information services to schools and libraries.[2205] Small Cable II is concerned that the competitive bidding process for educational telecommunications services may provide ILECs with an unfair advantage.[2206] It contends that small businesses, such as small cable operators, must be allowed to compete for the opportunity to provide services supported by universal service on a level playing field.[2207] PageMart expresses concern that inclusion of such things as support for internal connections for schools and libraries may negatively affect small carriers by increasing the size of the universal service support mechanisms.[2208]

881. Other. California SBA asserts that small businesses will only benefit when competition is opened to all entities in the telecommunications industry.[2209] United Utilities contends that requiring carriers to treat the amount eligible for support to eligible health care providers as an offset to carriers' universal service support obligation is anti-competitive for small carriers whose funding obligations are insufficient to allow them to receive the full

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[2201] NSBA II NPRM comments at 4.

[2202] NSBA II NPRM comments at 5.

[2203] Vermont PSB comments at 19.

[2204] *See, e.g.*, MFS comments at 18; Small Cable reply comments at 5-7.

[2205] Small Cable reply comments at 6-7.

[2206] Small Cable II reply comments at ii.

[2207] Small Cable II reply comments at iii.

[2208] PageMart comments at 5.

[2209] California SBA comments at 13.

offset in the current year.[2210] A few commenters state that "small" carriers should be either exempt from contribution to universal support mechanisms[2211] or should be allowed to make discounted contributions.[2212]

2. Discussion

882. General. We disagree with the SBA's general criticisms of our IRFAs procedure. Although under no obligation to do so, the Commission prepared a second IRFA in connection with the Recommended Decision to expand upon and seek comment upon issues relating to small entities. These IRFAs sought comment on the many alternatives discussed in the body of the NPRM and Recommended Decision, including statutory exemptions for certain small companies.[2213] The numerous general public comments concerning the impact of our proposal on small entities, including comments filed directly in response to the IRFAs, as discussed above, lead us to conclude that the IRFAs were sufficiently timely and detailed to enable parties to comment meaningfully on the proposed rules and to enable us to prepare this FRFA. We have been working with, and will continue to work with, the SBA to ensure that both our IRFAs and the FRFA fully meet the requirements of the RFA.

883. Business Connections. We make no change in the existing support mechanisms to business connections until a forward-looking cost methodology is established to determine universal service support.[2214] All residential and business connections that are currently supported will continue to be supported. Many small businesses that may have been excluded under the Joint Board's recommendation that support be limited to only businesses with single connections will benefit from this decision. We are mindful of the reasoning behind the Joint Board's recommendation to limit support to only businesses with single connections, including the similarities that exist between businesses with single connections and residential consumers. We are also mindful of the concerns of many commenters on this issue, including the SBA, advocating our rejection of the Joint Board's recommendation. The Joint Board's recommendation will be revisited as we establish a forward-looking cost methodology, and, therefore, we do not find it necessary to address comments relating to the Joint Board's recommendation on the extent of support for business connections at this time.

[2210] United Utilities comments at 7.

[2211] *See, e.g.*, Florida PSC NPRM comments at 24; Teleport NPRM comments at 12-14; SBA NPRM comments at 9-11.

[2212] *See, e.g.*, PCIA NPRM comments at 8.

[2213] NPRM at para. 142.

[2214] *See infra* section VII.

884. Forward-Looking Cost Methodology. We have taken into consideration the concerns of Harris and others that forward-looking cost methodologies do not have the ability to predict costs for small, rural telephone companies.[2215] To minimize the financial impact of this change on small entities, we shall permit small, rural carriers to shift to a forward-looking cost methodology more gradually than larger carriers. We believe that upon development of an appropriate forward-looking cost methodology, the Commission's mechanism for calculating support for small, rural carriers will minimize the adverse effects of an immediate shift to a forward-looking cost methodology. In 1998 and 1999, small, rural carriers will continue to receive high cost loop support based on the existing system. Beginning on January 1, 2000, the nationwide average loop costs, on which carriers' high cost loop support is currently based, will be indexed to changes in the gross domestic product chained price index (GDP-CPI). Starting January 1, 1998, DEM weighting for small, rural carriers will continue to be calculated under the existing prescribed formulas, but the interstate allocation factor will be maintained at 1996 levels. LTS support for rural carriers will be indexed to changes in the nationwide average loop costs starting in 1998. We will revisit the issue of support for small, rural companies and the conversion to an alternative methodology when we adopt a forward-looking cost methodology for rural carriers. Small, rural carriers in Alaska and insular areas will not be required to transition to a forward-looking cost methodology until further review.

885. Schools and Libraries. Despite the concerns of some commenters that the IRFAs performed in conjunction with the NPRM and Recommended Decision overlooked small government jurisdictions, we note that the IRFA that was adopted pursuant to the Recommended Decision specifically acknowledged the 112,314 public and private schools and 15,904 libraries potentially affected by the recommendations made by the Joint Board.[2216] We also reject NSBA II's assertion that the Commission should not impose reporting requirements and restrictions upon resale of telecommunications services. In section 254(h)(3), Congress clearly prohibits eligible public institutions from reselling supported telecommunications services to ensure that only eligible institutions can purchase services at a discount.[2217] We have implemented this requirement so as to avoid any unnecessary financial or paperwork burden, and commenters offer no evidence or reason that it will impose any such burden on eligible institutions.

886. To foster vigorous competition for serving schools and libraries, we conclude that non-telecommunications carriers must also be permitted to compete to provide these

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[2215] *See infra* section VII.

[2216] 61 Fed. Reg. at 63,799.

[2217] 47 U.S.C. § 254(h)(3).

services in conjunction with telecommunications carriers or even on their own. Therefore, we encourage non-telecommunications carriers, many of which may be small businesses, either to enter into partnerships or joint ventures with telecommunications carriers that are not currently serving the areas in which the libraries and schools are located or to offer services on their own.[2218] We have also made every effort to ensure that all entities, including small entities, are allowed to participate and compete in the universal service program on an equal basis by adopting the additional principle of competitive neutrality in the requirement for contribution, and distribution of, and the determination of eligibility for universal service support. We note that section 254(h)(2) specifically requires that the Commission establish competitively neutral rules to enhance access to advanced services for classrooms, libraries, and health care providers.[2219] We conclude that implementation of such a principle will allow small businesses, such as small cable operators, to compete fairly with ILECs and other entities in providing telecommunications services to classrooms and libraries.

887. We share the concerns of PageMart that the size of the fund not infringe upon the ability of small entities to participate and utilize telecommunications services by unduly increasing the expense of such services. We have made every effort to implement the mandate established by Congress to provide discounted access to telecommunications services to schools and libraries in the most cost-effective and economical manner possible including, imposing a cap on the schools and libraries fund. The Joint Board carefully balanced the potential benefits of support against the burden imposed on those who would ultimately contribute such support, and we adopt the funding levels it recommended.

888. Other. We acknowledge the concern of United Utilities that requiring carriers to treat the support amount to eligible health care providers as an offset may be burdensome to small carriers whose funding obligations may be insufficient to allow recovery of the full offset in the current year.[2220] Although we agree with the Joint Board's recommendation initially to limit carriers to offsets, we also expressly agree that small carriers should not be required to carry forward such offset credits beyond one year. Accordingly, we conclude that telecommunications carriers providing services to rural health care providers at reasonably comparable rates under section 254(h)(1)(A) should treat the support amount as an offset toward the carrier's universal service support obligation for the year in which the expenses were incurred.[2221] To the extent that the amount of universal service support due to a carrier exceeds the carrier's universal service obligation, calculated on an annual basis, the carrier

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[2218] *See supra* section X.

[2219] 47 U.S.C. § 254(h)(2).

[2220] *See supra* section XI.

[2221] *See supra* section XI.

may receive a direct reimbursement in the amount of the difference. We believe allowing carriers to receive direct reimbursement on those terms should help ensure that they have adequate resources to cover the costs of providing supported services. Small carriers may find it difficult to sustain such costs absent prompt reimbursement. Pursuant to this approach, those small carriers who do not contribute to the universal service fund because they are subject to the *de minimis* exemption may receive direct reimbursement as well. Although we agree with the Joint Board that an offset mechanism is both less vulnerable to manipulation and more easily administered and monitored than direct reimbursement, we conclude that the approach set forth here appropriately balances the concerns of carriers whose rate reductions exceed their contributions in a given year against the need to adopt a reimbursement method that may be easily administered and monitored.

889. We disagree with Florida PSC and others that suggest that "small" carriers should be treated differently from "large" carriers for purposes of assessing contributions to universal service.[2222] Section 254(d) requires that "every telecommunications carrier that provides interstate telecommunications service shall contribute, on an equitable and non-discriminatory basis" to preserve and advance universal service.[2223] This section makes no distinction between large and small carriers. While some commenters contend that the *de minimis* exemption should be applied to small carriers, we find the *de minimis* exemption should be limited to cases in which a carrier's contribution to universal service in any given year is less than $100.00.[2224] Small carriers may qualify under this provision and we conclude that it is not necessary to make a general exception for all small carriers. Although we note that several commenters favor a graduated contribution system which would be more equitable to small carriers, we find that a uniform contribution system, subject to the *de minimis* exemption, is fair and equitable to all carriers, because all carriers will be subject to the same requirements. We believe that this system is also competitively neutral and consistent with congressional intent to promote competition in the telecommunications industry.

C. Description and Estimates of the Number of Small Entities to Which the Rules Adopted in This Report and Order will Apply.

890. The RFA generally defines "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction" and the same meaning as the term "small business concern" under the Small Business Act, 15 U.S.C.

[2222] *See infra* section XIII.

[2223] 47 U.S.C. § 254(d).

[2224] *See infra* section XIII.

§ 632, unless the Commission has developed one or more definitions that are appropriate to its activities.[2225] Under the Small Business Act, a "small business concern" is one that: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) meets any additional criteria established by the Small Business Administration (SBA).[2226] The RFA also applies to nonprofit organizations and to governmental organizations such as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations of less than 50,000.[2227] As of 1992, the most recent figures available, there were 85,006 governmental entities in the United States.[2228]

891. The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4812 (Radiotelephone Communications) and 4813 (Telephone Communications, Except Radiotelephone) to be small entities having fewer than 1,500 employees.[2229] This FRFA first discusses generally the total number of small telephone companies falling within both of those SIC categories. Then, we discuss other small entities potentially affected and attempt to refine those estimates pursuant to this Report and Order.

892. Small incumbent LECs subject to these rules are either dominant in their field of operation or are not independently owned and operated, and, consistent with our prior practice, they are excluded from the definition of "small entity" and "small business concerns."[2230] Accordingly, our use of the terms "small entities" and "small business" does not encompass small incumbent LECs.[2231] Out of an abundance of caution, however, for regulatory flexibility analysis purposes,[2232] we will consider small incumbent LECs within this analysis and use the term "small incumbent LECs" to refer to any incumbent LECs that

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[2225] 5 U.S.C. § 601(3) (incorporating by reference the definition of "small business concern" in 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of small business applies "unless an agency after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definitions in the Federal Register."

[2226] Small Business Act, 15 U.S.C. § 632 (1996).

[2227] 5 U.S.C. § 601(5).

[2228] United States Department of Commerce, Bureau of the Census, *1992 Census of Governments* (*1992 Census of Governments*).

[2229] 13 C.F.R. § 121.201.

[2230] *See Local Competition Order*, 11 FCC Rcd at 16144-16145, 16150.

[2231] *See Local Competition Order*, 11 FCC Rcd at 16150.

[2232] *See* 13 C.F.R. § 121.902(b)(4).

arguably might be defined by the SBA as "small business concerns."

893. We note that our analysis of the entities affected by the rules promulgated in this Order is subject to change as future revisions are made in the universal service rules.[2233] Moreover, we note that section XIII.B discusses specific examples of some of the entities affected by our rules but is not to be considered an exhaustive list of all of the entities potentially affected.[2234] We also note that our analysis as to the impact of the rules upon small entities may be revised pending any revision of the rules.

1. Telephone Companies (SIC 4813)

894. Total Number of Telephone Companies Affected. Many of the decisions and rules adopted herein may have a significant effect on a substantial number of the small telephone companies identified by the SBA. The United States Bureau of the Census ("the Census Bureau") reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year.[2235] This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, PCS providers, covered SMR providers, and resellers. It seems certain that some of those 3,497 telephone service firms may not qualify as small entities or small incumbent LECs because they are not "independently owned and operated."[2236] For example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. It seems reasonable to conclude, therefore, that fewer than 3,497 telephone service firms would qualify as small entity telephone service firms or small incumbent LECs, as defined above, that may be affected by this Order.

895. Wireline Carriers and Service Providers. The SBA has developed a definition of small entities for telecommunications companies other than radiotelephone (wireless)

[2233] *See infra* section VII.

[2234] *See* Appendix I, subpart H for a list of potential contributors including: cellular telephone and paging services; mobile radio services; operator services; personal communications services (PCS); access to interexchange service; alternative and special access service; WATS; toll-free service; 900 service; message telephone service; private line service; telex; telegraph; Title II video transmission service; Title II satellite service; resale of interstate service; and payphone service.

[2235] United States Department of Commerce, Bureau of the Census, *1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size*, at Firm Size 1-123 (indicating only the number of such firms engaged in providing telephone service and not the size of such firms) (1995) (*1992 Census*).

[2236] 15 U.S.C. § 632(a)(1).

companies (Telephone Communications, Except Radiotelephone). The Census Bureau reports that there were 2,321 such telephone companies in operation for at least one year at the end of 1992.[2237] According to the SBA's definition, a small business telephone company other than a radiotelephone company is one employing fewer than 1,500 persons.[2238] Of the 2,321 non-radiotelephone companies listed by the Census Bureau, 2,295 were reported to have fewer than 1,000 employees. Thus, at least 2,295 non-radiotelephone companies might qualify as small entities or small incumbent LECs or small entities based on these employment statistics. As it seems certain that some of these carriers are not independently owned and operated, however, this figure necessarily overstates the actual number of non-radiotelephone companies that would qualify as "small business concerns" under the SBA's definition. Consequently, we estimate using this methodology that there are fewer than 2,295 small entity telephone communications companies (other than radiotelephone companies) that may be affected by the proposed decisions and rules adopted in this Order.

896. Local Exchange Carriers. Neither the Commission nor the SBA has developed a definition of small providers of local exchange services. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[2239] The most reliable source of information regarding the number of LECs nationwide of which we are aware appears to be the data that the Commission collects annually in connection with the *TRS Worksheet*.[2240] According to the most recent data, 1,347 companies reported that they were engaged in the provision of local exchange services.[2241] As some of these carriers have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of LECs that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 1,347 small incumbent LECs that may be affected by the decisions and rules adopted in this Order.

897. Interexchange Carriers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to providers of interexchange services (IXCs). The closest applicable definition under the SBA rules is for telephone

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[2237] *1992 Census*, *supra*, at Firm Size 1-123.

[2238] 13 C.F.R. § 121.201, SIC 4812.

[2239] 13 C.F.R. § 121.201, SIC 4813.

[2240] Federal Communications Commission, Industry Analysis Division, *Telecommunications Industry Revenue: TRS Fund Worksheet Data*, (Average Total Telecommunications Revenue Reported by Class of Carrier) (Dec. 1996) (*TRS Worksheet*).

[2241] *TRS Worksheet* at Tbl. 1.

communications companies other than radiotelephone (wireless) companies.[2242] The most reliable source of information regarding the number of IXCs nationwide appears to be the data that the Commission collects annually in connection with *TRS Worksheet*. According to the most recent data, 130 companies reported that they were engaged in the provision of interexchange services.[2243] As some of these carriers have more than 1,500 employees, we are unable at this time to estimate with greater precision the number of IXCs that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 130 small entity IXCs that may be affected by the decisions and rules adopted in this Order.

898. Competitive Access Providers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to providers of competitive access services (CAPs). The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[2244] The most reliable source of information regarding the number of CAPs nationwide of which we are aware is the data that the Commission collects annually in connection with the *TRS Worksheet*. According to the most recent data, 57 companies reported that they were engaged in the provision of competitive access services.[2245] We have no information on the number of carriers that are not independently owned and operated, nor on those that have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of CAPs that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 57 small entity CAPs that may be affected by the decisions and rules adopted in this Order.

899. Operator Service Providers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to providers of operator services. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[2246] The most reliable source of information regarding the number of operator service providers nationwide of which we are aware appears to be the data that the Commission collects annually in connection with the *TRS Worksheet*. According to the most recent data, 25 companies

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[2242] 13 C.F.R. § 121.201, SIC 4813.

[2243] *TRS Worksheet* at Tbl. 1.

[2244] 13 C.F.R. § 121.201, SIC 4813.

[2245] *TRS Worksheet* at Tbl. 1.

[2246] 13 C.F.R. § 121.201, SIC 4813.

reported that they were engaged in the provision of operator services.[2247] We do not have information on the number of carriers that are not independently owned and operated, nor have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of operator service providers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 25 small entity operator service providers that may be affected by the decisions and rules adopted in this Order.

900. Pay Telephone Operators. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to pay telephone operators. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[2248] The most reliable source of information regarding the number of pay telephone operators nationwide of which we are aware is the data that the Commission collects annually in connection with the *TRS Worksheet*. According to the most recent data, 271 companies reported that they were engaged in the provision of pay telephone services.[2249] We have no information on the number of carriers that are not independently owned and operated, nor on those that have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of pay telephone operators that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 271 small entity pay telephone operators that may be affected by the decisions and rules adopted in this Order.

901. Radiotelephone (Wireless) Carriers. The SBA has developed a definition of small entities for radiotelephone (wireless) companies. The Census Bureau reports that there were 1,176 such companies in operation for at least one year at the end of 1992.[2250] According to the SBA's definition, a small business radiotelephone company is one employing fewer than 1,500 persons.[2251] The Census Bureau also reported that 1,164 of those radiotelephone companies had fewer than 1,000 employees. Thus, even if all of the remaining 12 companies had more than 1,500 employees, there would still be 1,164 radiotelephone companies that might qualify as small entities if they are independently owned and operated. We do not have information on the number of carriers that are not independently owned and operated, and thus are unable at this time to estimate with greater precision the number of radiotelephone carriers and service providers that would qualify as

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[2247] *TRS Worksheet* at Tbl. 1.

[2248] 13 C.F.R. § 121.201, SIC 4813.

[2249] *TRS Worksheet* at Tbl. 1.

[2250] *1992 Census* at Firm Size 1-123.

[2251] 13 C.F.R. § 121.201, SIC 4812.

small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 1,164 small entity radiotelephone companies that may be affected by the decisions and rules adopted in this Order.

902. Cellular Service Carriers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to providers of cellular services. The closest applicable definition under the SBA rules is for radiotelephone (wireless) companies (SIC 4812). The most reliable source of information regarding the number of cellular service carriers nationwide of which we are aware is the data that the Commission collects annually in connection with the *TRS Worksheet*. According to the most recent data, 792 companies reported that they were engaged in the provision of cellular services.[2252] We have no information on the number of carriers that are not independently owned and operated, nor on those that have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of cellular service carriers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 792 small entity cellular service carriers that may be affected by the decisions and rules adopted in this Order.

903. Mobile Service Carriers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to mobile service carriers, such as paging companies. The closest applicable definition under the SBA rules is for radiotelephone (wireless) companies. The most reliable source of information regarding the number of mobile service carriers nationwide of which we are aware is the data that the Commission collects annually in connection with the *TRS Worksheet*. According to the most recent data, 117 companies reported that they were engaged in the provision of mobile services.[2253] We have no information on the number of carriers that are not independently owned and operated, nor on those that have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of mobile service carriers that would qualify under the SBA's definition. Consequently, we estimate that there are fewer than 117 small entity mobile service carriers that may be affected by the decisions and rules adopted in this Order.

904. Broadband Personal Communications Service (PCS) Licensees. The broadband PCS spectrum is divided into six frequency blocks designated A through F and the Commission has held auctions for each block. The Commission has defined "small entity" in the auctions for Blocks C and F as a entity that has average gross revenues of less than $40

[2252] *TRS Worksheet* at Tbl. 1.

[2253] *TRS Worksheet* at Tbl. 1.

million in the three previous calendar years.[2254] For Block F, an additional classification for "very small business" was added and is defined as an entity that, together with their affiliates, has average gross revenue of not more than $15 million for the preceding three calendar years.[2255] These regulations defining "small entity" in the context of broadband PCS auctions have been approved by the SBA. No small businesses within the SBA-approved definition bid successfully for licenses in Blocks A and B. There were 90 winning bidders that qualified as small entities in the Block C auctions. A total of 93 small and very small business bidders won approximately 40% of the 1,479 licenses for Blocks D, E, and F. However, licenses for Blocks C through F have not been awarded fully, therefore there are few, if any, small businesses currently providing PCS services. Based on this information, we conclude that the number of small broadband PCS licensees will include the 90 winning bidders and the 93 qualifying bidders in the D, E, and F Blocks, for a total of 183 small PCS providers as defined by the SBA and the Commission's auction rules.

905. Narrowband PCS. The Commission has auctioned nationwide and regional licenses for narrowband PCS. There are 11 nationwide and 30 regional licensees for narrowband PCS. The Commission does not have sufficient information to determine whether any of these licensees are small businesses within the SBA-approved definition. At present, there have been no auctions held for the major trading area (MTA) and basic trading area (BTA) narrowband PCS licenses. The Commission anticipates a total of 561 MTA licenses and 2,958 BTA licenses will be awarded in the auctions. Those auctions, however, have not yet been scheduled. Given the fact that nearly all radiotelephone companies have fewer than 1,500 employees and that no reliable estimate of the number of prospective MTA and BTA narrowband licensees can be made, we assume that all of the licenses will be awarded to small entities, as that term is defined by the SBA.

906. Rural Radiotelephone Service. The Commission has not adopted a definition of small business specific to the Rural Radiotelephone Service, which is defined in Section 22.99 of the Commission's Rules.[2256] A subset of the Rural Radiotelephone Service is BETRS, or Basic Exchange Telephone Radio Systems.[2257] Accordingly, we will use the SBA's definition applicable to radiotelephone companies, i.e., an entity employing fewer than 1,500 persons. There are approximately 1,000 licensees in the Rural Radiotelephone Service, and we estimate that almost all of them qualify as small under the SBA's definition of a small

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[2254] *See* Amendment of Parts 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824 (1996).

[2255] *See* Amendment of Parts 20 and 24 of the Commission's Rules -- Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap, *Report and Order*, 11 FCC Rcd 7824 (1996).

[2256] 47 C.F.R. § 22.99.

[2257] *See* 47 C.F.R. §§ 22.757 - 22.759.

business.[2258]

907. Public Safety Radio Services. Public Safety Radio Services include police, fire, local government, forestry conservation, highway maintenance, and emergency medical services.[2259] There are a total of approximately 127,540 licensees within these services. Governmental entities as well as private businesses comprise the licensees for these services. As we indicated, all governmental entities with populations of less than 50,000 fall within the definition of a small business.[2260] There are approximately 37,566 governmental entities with populations of less than 50,000.[2261]

908. Specialized Mobile Radio (SMR) Licensees. Pursuant to 47 C.F.R. § 90.814(b)(1), the Commission has defined "small entity" in auctions for geographic area 800 MHz and 900 MHz SMR licenses as a firm that had average annual gross revenues of less than $15 million in the three previous calendar years. This definition of a "small entity" in the context of 800 MHz and 900 MHz SMR has been approved by the SBA.[2262] The rules

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[2258] 13 C.F.R. § 121.201, SIC 4812.

[2259] With the exception of the special emergency service, these services are governed by subpart B of Part 90 of the Commission's rules. 47 C.F.R. § 90.15 through 90.27. The police service includes 26,608 licensees that serve state, county, and municipal enforcement through telephony (voice), telegraphy (code) and teletype and facsimile (printed material). The fire radio service includes 22,677 licensees comprised of private volunteer or professional fire companies as well as units under government control. The local government service that is presently comprised of 40,512 licensees that are state, county, or municipal entities that use the radio for official purposes not covered by other public safety services. There are 7,325 licensees within the forestry service which is comprised of licensees from state departments of conservation and private forest organizations who set up communications networks among fire lookout towers and ground crews. The 9,480 state and local governments are licensed to highway maintenance service provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. The 1,460 licensees in the Emergency Medical Radio Service use the 39 channels allocated to this service for emergency medical service communications related to the actual delivery of emergency medical treatment. 47 C.F.R. §§ 90.15 through 90.27. The 19,478 licensees in the special emergency medical service include medical services, rescue organizations, veterinarians, handicapped persons, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities, and emergency repair of public communications facilities. 47 C.F.R. §§ 90.33 through 90.55.

[2260] 5 U.S.C. § 601(5).

[2261] *1992 Census of Governments*.

[2262] *See* Amendment of Parts 2 and 90 of the Commission's Rules to Provide for the Use of 200 Channels Outside the Designated Filing Areas in the 896-901 MHz and the 935-940 MHz Bands Allotted to the Specialized Mobile Radio Pool, *Second Order on Reconsideration and Seventh Report and Order*, 11 FCC Rcd 2639, 2693-702 (1995); Amendment of Part 90 of the Commission's Rules to Facilitate Future Development of SMR Systems in the 800 MHz Frequency Band, *First Report and Order, Eighth Report and Order, and Second Further Notice of Proposed Rulemaking*, 11 FCC Rcd 1463 (1995).

adopted in this Order may apply to SMR providers in the 800 MHz and 900 MHz bands that either hold geographic area licenses or have obtained extended implementation authorizations. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of less than $15 million.

909. The Commission recently held auctions for geographic area licenses in the 900 MHz SMR band. There were 60 winning bidders who qualified as small entities in the 900 MHz auction. Based on this information, we conclude that the number of geographic area SMR licensees affected by the rule adopted in this Order includes these 60 small entities. No auctions have been held for 800 MHz geographic area SMR licenses. Therefore, no small entities currently hold these licenses. A total of 525 licenses will be awarded for the upper 200 channels in the 800 MHz geographic area SMR auction. The Commission has not yet determined how many licenses will be awarded for the lower 230 channels in the 800 MHz geographic area SMR auction. Moreover, there is no basis on which to estimate how many small entities will win these licenses. Given that nearly all radiotelephone companies have fewer than 1,000 employees and that no reliable estimate of the number of prospective 800 MHz licensees can be made for purposes of this FRFA, we assume that all of the licenses may be awarded to small entities that may be affected by the decisions in this Order.

910. Resellers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to resellers. The closest applicable SBA definition for a reseller is a telephone communications company except radiotelephone (wireless) companies.[2263] The most reliable source of information regarding the number of resellers nationwide of which we are aware, however, is the data that the Commission collects annually in connection with the *TRS Worksheet*. According to our most recent data, 260 companies reported that they were engaged in the resale of telephone services.[2264] We have no information on the number of carriers that are not independently owned and operated, nor on those that have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of resellers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 260 small entity resellers that may be affected by the decisions and rules adopted in this Order.

911. 900 Service. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to 900 services. The most reliable source of information regarding the number of 900 service carriers with 900 code assignments of which we are aware is the data that the Commission collects annually in connection with the *Long*

[2263] 13 C.F.R. § 121.201, SIC 4813.

[2264] *TRS Worksheet* at Tbl. 1.

Distance Carrier Code Assignments.[2265] According to our most recent data, 68 carriers reported that they were engaged in 900 service.[2266] Consequently, we estimate that there are fewer than 68 small entity 900 service providers that may be affected by the decisions and rules adopted in this Order.

912. Private Line Service. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to private line service. The most reliable source of information regarding the number of private line service providers of which we are aware is the data the Commission collects annually in connection with the *TRS Worksheet*. According to our most recent data, 635 LECs and other carriers reported that they were engaged in private line service.[2267] Consequently, we estimate that there are fewer than 635 LECs and other carriers providing private line service that may be affected by the decisions and rules adopted in this Order.

913. Telegraph. The SBA has developed a definition of small entities for telegraph and other communications that include all such companies generating less than $5 million in revenue annually.[2268] The Commission collects its own data on telegraph companies in connection with the *International Telecommunications Data*.[2269] According to our most recent data, 4 facilities based and 1 resale provider reported that they engaged in international telegraph service.[2270] According to the Census Bureau, there were 286 total telegraph firms and 247 had less than $5 million in annual revenue.[2271] Consequently, we estimate that there are less than 247 small telegraph firms that may be affected by the decisions and rules adopted in this Order.

914. Telex. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to telex. The most reliable source of information

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[2265] Federal Communications Commission, Industry Analysis Division, *Long Distance Carrier Code Assignments*, (Oct. 1996).

[2266] *Long Distance Carrier Code Assignment* at Tbl. 12.

[2267] *TRS Worksheet* at Tbl. 1.

[2268] 13 C.F.R. § 121.201, SIC 4822.

[2269] Federal Communications Commission, Industry Analysis Division, *1995 Section 43.61 International Telecommunications Data* (Jan. 1997) (*International Telecommunications Data*).

[2270] *International Telecommunications Data*, Fig. 7 - 1995 U.S. Billed Revenues for Facilities-Based and Facilities - Resale Service.

[2271] U.S. Department of Commerce, Bureau of Census, *1992 Economic Census Industry and Enterprise Size Reports* at Tbl. 2D, SIC 4822 (Bureau of Census data under contract with the Office of Advocacy).

regarding the number of telegraph service providers of which we are aware is the data the Commission collects in connection with the *International Telecommunications Data*. According to our most recent data, 5 facilities based and 2 resale provider reported that they engaged in telex service.[2272] Consequently, we estimate that there are fewer than 7 telex providers that may be affected by the decisions and rules adopted in this Order.

915. Message Telephone Service. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to message telephone service. The most reliable source of information regarding the number of message telephone service providers of which we are aware is the data the Commission collects in connection with the *International Telecommunications Data*. According to our most recent data, 1,092 carriers reported that they engaged in message telephone service.[2273] Consequently, we estimate that there are fewer than 1,092 message telephone service providers that may be affected by the decisions and rules adopted in this Order.

916. 800 Subscribers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to 800 subscribers.[2274] The most reliable source of information regarding the number of 800 subscribers is data we collect on the number of 800 numbers in use.[2275] According to our most recent data, the number of 800 numbers in use was 6,987,063. We do not have information on the number of carriers not independently owned and operated, nor having more than 1,500 employees, and thus are unable to estimate with greater precision the number of 800 subscribers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 6,987,063 small entity 800 subscribers.

2. Cable System Operators (SIC 4841)

917. The SBA has developed a definition of small entities for cable and other pay television services that includes all such companies generating less than $11 million in revenue annually.[2276] This definition includes cable systems operators, closed circuit

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[2272] *International Telecommunications Data*, Fig. 7 - 1995 U.S. Billed Revenues for Facilities-Based and Facilities - Resale Service.

[2273] *International Telecommunications Data*, All Carriers: International Message Telephone Resale Service at Tbl. D1.

[2274] We include all toll-free number subscribers in this category, including 888 numbers.

[2275] Federal Communications Commission, Industry Analysis Division, *FCC Releases, Study on Telephone Trends* at Tbl. 20 (May 16, 1996).

[2276] 13 C.F.R. § 121.201, SIC 4841.

television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems, and subscription television services. According to the Census Bureau, there were 1,758 total cable and other pay television services and 1,423 had less than $11 million in revenue.[2277] We note that cable system operators are included in our analysis due to their ability to provide telephony.

918. The Commission has developed with the SBA's approval our own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company," is one serving fewer than 400,000 subscribers nationwide.[2278] Based on our most recent information, we estimate that there were 1,439 cable operators that qualified as small cable system operators at the end of 1995.[2279] Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are less than 1,439 small entity cable system operators that may be affected by the decisions and rules adopted in this Order. We conclude that only a small percentage of these entities currently provide qualifying "telecommunications services" required by the Act and, therefore, estimate that the number of such entities affected are significantly fewer than noted.

919. The Act also contains a definition of small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000."[2280] The Commission has determined that there are 61,700,000 subscribers in the United States. Therefore, we found that an operator serving fewer than 617,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed $250 million in the aggregate.[2281] Based on available data, we find that the

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[2277] U.S. Department of Commerce, Bureau of Census, *1992 Economic Census Industry and Enterprise Receipts Size Report*, Table 2D, SIC 4841 (Bureau of the Census data under contract to the Office of Advocacy of the SBA).

[2278] 47 C.F.R. § 76.901(e). The Commission developed this definition based on its determination that a small cable system operator is one with annual revenues of $100 million or less. Implementation of Sections of the 1992 Cable Act: Rate Regulation, *Sixth Report and Order and Eleventh Order on Reconsideration*, 10 FCC Rcd 7393.

[2279] Paul Kagan Associates, Inc., *Cable TV Investor*, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

[2280] 47 U.S.C. § 543(m)(2).

[2281] 47 C.F.R. § 76.1403(b).

number of cable operators serving 617,000 subscribers or less total 1,450.[2282] We do not request nor do we collect information concerning whether cable system operators are affiliated with entities whose gross annual revenues exceed $250,000,000,[2283] and thus are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Act.

920. Direct Broadcast Satellites (DBS). Because DBS provides subscription services, DBS falls within the SBA definition of Cable and Other Pay Television Services (SIC 4841). This definition provides that a small entity is one with $11 million or less in annual receipts.[2284] As of December 1996, there were eight DBS licensees. The Commission, however, does not collect annual revenue data for DBS and, therefore, is unable to ascertain the number of small DBS licensees that could be impacted by these rules. Although DBS service requires a great investment of capital for operation, we acknowledge that there are several new entrants in this field that may not yet have generated $11 million in annual receipts, and therefore may be categorized as a small business, if independently owned and operated.

921. International Services. The Commission has not developed a definition of small entities applicable to licensees in the international services. Therefore, the applicable definition of small entity is the definition under the SBA rules applicable to Communications Services, Not Elsewhere Classified (NEC). This definition provides that a small entity is expressed as one with $11 million or less in annual receipts.[2285] According to the Census Bureau, there were a total of 848 communications services, NEC in operation in 1992, and a total of 775 had annual receipts of less than $9,999 million.[2286] We note that those entities providing only international service will not be affected by our rules. We do not, however, have sufficient data to estimate with greater detail those providing both international and interstate services. Consequently, we estimate that there are fewer than 775 small international service entities potentially impacted by our rules.

922. International Broadcast Stations. Commission records show that there are 20

[2282] Paul Kagan Associates, Inc., *Cable TV Investor*, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

[2283] We receive such information on a case-by-case basis only if a cable operator appeals to a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to section 76.1403(b) of the Commission's rules. *See* 47 C.F.R. § 76.1403(d).

[2284] 13 C.F.R. § 121.201, SIC 4841.

[2285] 13 C.F.R. § 120.121, SIC 4899.

[2286] United States Dept. of Commerce, Bureau of Census, *1992 Economic Census Industry and Enterprise Receipts Size Report*, at Tbl. 2D.

international broadcast station licensees. We do not request nor collect annual revenue information, and thus are unable to estimate the number of international broadcast licensees that would constitute a small business under the SBA definition. We note that those entities providing only international service will not be affected by our rules. We do not, however, have sufficient data to estimate with greater detail those providing both international and interstate services. Consequently, we estimate that there are fewer than 20 international broadcast stations potentially impacted by our rules.

3. Municipalities

923. The term "small government jurisdiction" is defined as "government of . . . districts with populations of less than 50,000."[2287] The most recent figures indicate that there are 85,006 governmental entities in the United States.[2288] This number includes such entities as states, counties, cities, utility districts and school districts. Of the 85,006 governmental entities, 38,978 are counties, cities and towns. The remainder are primarily utility districts, school districts, and states. Of the 38,978 counties, cities, and towns, 37,566 or 96%, have populations of fewer than 50,000. Consequently, we estimate that there are 37,566 "small government jurisdictions" that will be affected by our rules.

4. Rural Health Care Providers

924. Neither the Commission nor the SBA has developed a definition of small, rural health care providers. Section 254(h)(5)(B) defines the term "health care provider" and sets forth the seven categories of health care providers eligible to receive universal service support.[2289] We estimate that there are: (1) 625 "post-secondary educational institutions offering health care instruction, teaching hospitals, and medical schools," including 403 rural community colleges,[2290] 124 medical schools with rural programs,[2291] and 98 rural teaching hospitals;[2292] (2) 1,200 "community health centers or health centers providing health care to

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[2287] 5 U.S.C. § 601(5).

[2288] *1992 Census of Governments.*

[2289] *See* 47 U.S.C. § 254(h)(5)(B).

[2290] Letter from Kent A. Phillippe, American Association of Community Colleges to John Clark, FCC, dated March 31, 1997 (AACC March 31 *ex parte* at 2).

[2291] Letter from Donna J. Williams, Ass'n of American Medical Colleges, to John Clark, FCC, dated September 9, 1996 (AAMC September 9 *ex parte*).

[2292] Letter from Kevin G. Serrin, Ass'n of American Medical Colleges, to John Clark, FCC, dated September 5, 1996 (AAMC September 5 *ex parte*).

migrants;"[2293] (3) 3,093 "local health departments or agencies" including 1,271 local health departments[2294] and 1,822 local boards of health;[2295] (4) 2,000 "community mental health centers;"[2296] (5) 2,049 "not-for-profit hospitals;"[2297] and (6) 3,329 "rural health clinics."[2298] We do not have sufficient information to make an estimate of the number of consortia of health care providers at this time. The total of these categorical numbers is 12,296. Consequently, we estimate that there are fewer than 12,296 health care providers potentially affected by the rules in this Order. According to the SBA definition, hospitals must have annual gross receipts of $5 million or less to qualify as a small business concern.[2299] There are approximately 3,856 hospital firms, of which 294 have gross annual receipts of $5 million or less. Although some of these small hospital firms may not qualify as rural health care providers, we are unable at this time to estimate with greater precision the number of small hospital firms which may be affected by this Order. Consequently, we estimate that there are fewer than 294 hospital firms affected by this Order.

5. Schools (SIC 8211) and Libraries (SIC 8231)

925. The SBA has established a definition of small elementary and secondary schools and small libraries as those with under $5 million in annual revenues.[2300] The most reliable source of information regarding the total number of kindergarten through 12th grade (K-12) schools and libraries nationwide of which we are aware appears to be data collected by the United States Department of Education and the National Center for Educational Statistics. Based on that information, it appears that there are approximately 86,221 public

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[2293] Letter from Richard C. Bohrer, Division of Community and Migrant Health, HHS, to John Clark, FCC, dated March 31, 1997 (HHS March 31 *ex parte* at 2).

[2294] Telephone contact by John Clark, FCC, with Carol Brown, National Association of County Health Officials, May 2, 1997.

[2295] Letter from Ned Baker, Nat'l Ass'n of Local Boards of Health, to John Clark, FCC, dated April 2, 1997 (Nat'l Ass'n of Local Boards of Health April 2 *ex parte*).

[2296] Telephone contact by John Clark, FCC, with Mike Weakin, Center for Mental Health Services, HHS, on May 2, 1997.

[2297] American Hospital Association Center for Health Care Leadership, *A Profile of Nonmetropolitan Hospitals 1991-95* at 5 (1997).

[2298] Letter from Patricia Taylor, ORHP/HHS, to John Clark, FCC, dated May 2, 1997 (ORHP/HHS May 2 *ex parte*).

[2299] 13 C.F.R. § 121.201, SIC 8060.

[2300] 13 C.F.R. § 121.201, SIC 8211 and 8231.

and 26,093 private K-12 schools in the United States (SIC 8211).[2301] It further appears that there are approximately 15,904 libraries, including branches, in the United States (SIC 8231).[2302] Although it seems certain that not all of these schools and libraries would qualify as small entities under the SBA's determination, we are unable at this time to estimate with greater precision the number of small schools and libraries that would qualify as small entities under the definition. Consequently, we estimate that there are fewer than 86,221 public and 26,093 private schools and fewer than 15,904 libraries that may be affected by the decisions and rules adopted in this Order.

D. Summary Analysis of the Projected Reporting, Recordkeeping, and Other Compliance Requirements and Significant Alternatives and Steps Taken to Minimize the Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

926. Structure of the Analysis. In this section of the FRFA, we analyze the projected reporting, recordkeeping, and other compliance requirements that may apply to small entities and small incumbent LECs as a result of this Order.[2303] As a part of this discussion, we mention some of the types of skills that will be needed to meet the new requirements. We also describe the steps taken to minimize the economic impact of our decisions on small entities and small incumbent LECs, including the significant alternatives considered and rejected.[2304]

Summary Analysis: Section III
PRINCIPLES

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

927. There are no reporting or other compliance requirements relating directly to the principles enumerated in section 254(b) or relating directly to the additional principle of competitive neutrality, as adopted by the Commission pursuant to section 254(b)(7).

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

[2301] Letter from Emilio Gonzalez, to Mark Nadel, FCC, dated November 4, 1996 (U.S. Department of Education November 4 *ex parte*).

[2302] National Center for Education Statistics, *Public Library Structure and Organization in the United States*, Tbl. 1 (March 1996).

[2303] *See* 5 U.S.C. § 604(a)(4).

[2304] *See* 5 U.S.C. § 604(a)(5).

928. As set forth in section III.C, we conclude that a fair and reasonable application of the principles enumerated by Congress in section 254(b) and the additional principle of competitive neutrality will favorably impact all business entities, including smaller entities, and promote universal service.[2305] By adopting the additional principle of competitive neutrality, we seek to ensure that all entities, including smaller entities, are treated on an equal basis so that contributions to and disbursements from the universal service support mechanisms will not be unfairly biased either in favor of or against any entity or group. We acknowledge the comments of certain rural telephone carriers, many of whom may be small entities, who contend that promotion of competition must be considered only secondary to the advancement of universal service. These commenters contend that certain provisions of the 1996 Act are intended to provide "rural safeguards" such as eligibility determinations for rural telephone carriers under section 214(e)(2). We balance these interests by acknowledging that a principal purpose of section 254 is to create mechanisms that will sustain universal service as competition emerges. We expect that applying the policy of competitive neutrality will promote the most efficient technologies that, over time, may provide competitive alternatives in rural areas and thereby benefit rural consumers. We also recognize technological neutrality as a concept encompassed by competitive neutrality. In doing so, the Commission has expanded universal service support to many small entities, both as providers and consumers of telecommunications services, in accordance with congressional intent to promote competition and provide affordable access to telecommunications and information services.

Summary Analysis: Section IV
DEFINITION OF UNIVERSAL SERVICE

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

929. All eligible carriers will be required to provide each of the core services designated for universal service support pursuant to section 254(c)(1) in order to receive universal service support, subject to certain enumerated exceptions. Upon a showing by an otherwise eligible carrier that exceptional circumstances prevent that carrier from providing single-party service, access to E911 service, or toll limitation services, a state commission may grant petitions by carriers for a period of time during which otherwise eligible carriers that are unable to provide those services can still receive universal service support while they make the network upgrades necessary to offer these services.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

930. As set forth in section IV.B.2, we find that universal service support should be

[2305] 47 U.S.C. § 254(b).

provided for eligible carriers that provide each of the designated services. In addition, we define the services designated for support in a competitively neutral manner, which permits wireless and other potential competing carriers to offer each of the designated services. This approach will permit cellular and other wireless carriers and non-incumbent providers, many of which may be small businesses, to compete in high cost areas.

931. In section IV.C, we seek to strike a reasonable balance between the need for single-party service, access to E911, and toll limitation services for low-income consumers, and the recognition that exceptional circumstances may prevent some carriers, particularly smaller carriers, from offering these services at present. Thus, we take a number of actions in this section to minimize the burdens on smaller entities wishing to receive universal service support. For example, state commissions will be permitted to approve an eligible carrier's requests for periods of time during which the carrier can receive universal service support while making the network upgrades needed to offer single-party service, access to E911, or toll limitation service. To the extent that this class of carriers includes smaller carriers, this approach reduces the burden on these small carriers by permitting additional time to comply with the requirement to provide all universal services prior to receiving support.

932. Although commenters suggest other services for inclusion in the definition of the supported core services, as set forth in section IV.B.2, we decline to expand the definition to include additional services at this time. We conclude that an overly broad definition of the section 254(c)(1) core services might have the unintended effect of creating a barrier to entry for some carriers, many of which may be small entities, because these carriers might be technically unable to provide the additional services.

933. As set forth in section IV.D, we acknowledge the many comments both in favor of and opposed to the Joint Board's recommendation to restrict support to businesses with a single connection. We note, however, that we are adopting a plan for implementing the new universal service mechanisms that includes extending the existing support mechanisms until such time as a forward-looking cost methodology is established. Under this approach, all residential and business connections that are currently supported will continue to receive support. This approach will benefit small telecommunications carriers and, tangentially, small businesses located in rural areas. We will, however, re-examine whether to adopt the Joint Board's recommendation to limit support for designated services to single residential connections and businesses with a single connection during the course of implementing a forward-looking cost methodology. As we currently make no change in the existing support mechanisms and will revisit this issue at a later date, we find that comments relating to this issue will be addressed at that time.

934. We do not establish service quality standards in section IV.E. Rather, we find that, to the extent possible, the Commission should rely on existing data, including the ARMIS data filed by price-cap LECs, to monitor service quality. We find that creating

federal service quality standards would burden carriers, including small carriers, and would be inconsistent with the 1996 Act's goal of a "pro-competitive, de-regulatory national policy framework."[2306]

Summary Analysis: Section V
AFFORDABILITY

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

935. The 1996 Act does not require, and we did not adopt, any new reporting, recordkeeping or other compliance requirements in this section.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

936. As set forth in section V.B, we agree with commenters that consumer income levels should be among the factors considered when assessing rate affordability. We find that a rate that is affordable to most consumers in affluent areas may not be affordable to lower income consumers. We conclude, in light of the significant disparity in income levels throughout the country, that per capita income of a local or regional area, and not a national median, should be considered in determining affordability. In doing so, we decline to adopt proposals to establish nationwide standards for measuring the impact of consumer income levels on affordability. We find that establishing a formula based on percentage of consumers' disposable income dedicated to telecommunications services would over-emphasize income levels in relation to other non-rate factors that may affect affordability and fail to reflect the effect of local circumstances on the affordability of a particular rate. We similarly reject proposals to define affordability based on a percentage of national median income and because such a standard would tend to overestimate the price at which service is affordable when applied to a service area where income level is significantly below the national median. We conclude that this approach will benefit small businesses located in rural areas by taking into consideration the economic factors relating to local areas rather than applying uniform national standards in making determinations relating to affordability.

937. Small entities will be impacted by our determination, as set forth in section V.B, that the states should have primary responsibility for monitoring the affordability of telephone service rates and in working in concert with the Commission to ensure the affordability of such rates. The Commission will work with affected states to determine the causes of both declining statewide subscribership levels and below average statewide subscribership levels. We conclude that small businesses, as well as other

[2306] Joint Explanatory Statement at 113.

telecommunications consumers, will benefit from the joint effort of the states and Commission to monitor the affordability of telephone service rates and identify potential corrective measures.

Summary Analysis: Section VI
CARRIERS ELIGIBLE FOR UNIVERSAL SERVICE SUPPORT

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

938. To receive most types of universal service support, the Act requires that a carrier must demonstrate to the relevant state commission that it has complied with criteria that Congress established in section 214(e), implemented by this Order. The statutory criteria require that a telecommunications carrier be a common carrier and offer, throughout a service area designated by the state commission, the services supported by federal universal service support mechanisms, either using its own facilities or a combination of its own facilities and resale of another carrier's services. A carrier must also advertise the availability of and charges for these services throughout its service area. An eligible telecommunications carrier that seeks to relinquish its eligible telecommunications carrier designation for an area served by more than one eligible telecommunications carrier shall give advanced notice to the state commission of such relinquishment. Applying for designation as an eligible carrier and demonstrating fulfillment of the statutory criteria may require administrative and legal skills.

939. Pursuant to section 214(e)(5), a state commission must seek the Commission's concurrence before a new definition of a rural service area may be adopted. The state commission or the affected carrier must submit the proposal to the Commission, which may require legal and administrative skills.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

940. As set forth in section VI.B, we adopt no additional federal criteria for eligibility, requiring only that carriers meet the eligibility criteria established by Congress in the 1996 Act. We reject arguments calling for more stringent eligibility rules, such as requiring new entrants to comply with any state rules applicable to the incumbent carrier, that could have imposed additional burdens on new entrants, many of which may be small entities. We conclude that a carrier can use any technology to meet the eligibility criteria, thus preserving the competitive neutrality of the eligibility requirements, and protecting all providers, including small providers. Our interpretation of the section 214(e) facilities requirement promotes the universal service policies adopted by Congress and avoids imposing undue burdens on all eligible carriers, including small carriers. This interpretation enables small competitive carriers to become eligible telecommunications carriers. We also conclude that any burdens that might be placed on small incumbent LECs facing competition from competitive LECs may be avoided or mitigated by the states when they consider petitions for

exemptions, suspensions or modifications of the requirements of section 251(c) by rural telephone companies and when they consider designating multiple eligible carriers pursuant to section 214(e)(3).

941. Additionally, as discussed in section VI.C, where states alone are responsible for designating a carrier's service area, we encourage states to adopt service areas that are not unreasonably large because unreasonably large service areas might discourage competitive entry or favor some carriers, including large carriers. We also indicate that, if a state commission agrees and the Commission does not disagree, the service area served by a rural telephone company (which is likely to be a small company), should be the study area in which they currently provide service. This requirement minimizes any burdens rural telephone companies would face from needing to recalculate costs over a differently-sized area. This requirement also protects small incumbent LECs from competitors that may target only the most financially lucrative customers in an area. We find that these provisions should minimize burdens on small entities.

942. We also conclude that the "pro-competitive, de-regulatory" intent of the 1996 Act would be furthered if we take action to minimize any procedural delay caused by the need for federal-state coordination to redefine rural service areas. Under the procedures we adopt, after a state has concluded that a service area definition different from a rural telephone company's study area is appropriate, either the state or a carrier must seek the agreement of the Commission. Upon the receipt of the proposal, the Commission will issue a public notice on the proposal. If the Commission does not act upon the proposal within 90 days of the public notice release date, the proposal will be deemed approved by the Commission and may take effect according to state procedure without further action on the part of the Commission. This procedure minimizes the burden on all parties, including small parties, that might seek to alter the definition of a rural service area.

Summary Analysis: Section VII
HIGH COST SUPPORT

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

943. Small, rural carriers comprise the specific class of small entities that are subject to high cost reporting requirements. We define "rural" as those carriers that meet the statutory definition of a "rural telephone company" set forth at 47 U.S.C. § 153(37).

944. To receive high cost support small, rural carriers have been required, under previous rules, to report the number of lines they serve and their embedded costs at the end of each year. Because small, rural carriers will receive support based on their embedded costs from 1998 until a forward-looking cost methodology is chosen, their reporting and recordkeeping requirements will remain the same. These requirements should not affect small

entities disproportionately because in order to receive support, large, non-rural carriers must also report the number of lines they serve and their embedded costs.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

945. Currently, an ILEC is eligible for support if its embedded loop costs, as reported annually, exceed 115 percent of the national average loop cost. We anticipate that we will adopt a forward-looking cost methodology for large, non-rural carriers to take effect on January 1, 1999. Until a forward-looking cost methodology for non-rural carriers takes effect, large, non-rural carriers will continue to receive high cost loop support and LTS based on the mechanisms in place for small, rural carriers.

946. To minimize the financial impact of this rule change on small entities, however, we shall permit small, rural carriers to shift to a forward-looking cost methodology more gradually than the large carriers.[2307] We believe that the Commission's mechanism for calculating support for small, rural carriers will minimize the adverse effects of an immediate shift to a forward-looking cost methodology. In 1998 and 1999, small, rural carriers will continue to receive high cost loop support based on the existing system. Beginning on January 1, 2000, the nationwide average loop costs, on which carriers' high cost loop support is currently based, will be indexed to changes in the GDP-CPI. Starting January 1, 1998, DEM weighting for small, rural carriers will continue to be calculated under the existing prescribed formulas, but the interstate allocation factor will be maintained at 1996 levels. LTS support for rural carriers will be indexed to changes in the nationwide average loop costs starting in 1998. We will revisit the issue of support for small, rural companies and the conversion to an alternative methodology when we adopt a forward-looking cost methodology for rural carriers. We find that a gradual shift for rural carriers should enable these carriers to adjust their operations in preparation for the use of a forward-looking cost methodology.

947. All carriers' high cost loop support for corporate operations expense, however, will be limited to 115 percent of an amount defined by a formula based upon a statistical study that predicts corporate operations based on the number of access lines. Because we will determine the benchmark for corporate and overhead expenses based on a carrier's number of lines, any limitation on corporate expenses would not disproportionately impact small carriers. We will also continue the current cap limiting growth of the high cost loop support mechanism. In order to ensure that the index accurately represents small carriers' loop growth, we will reset the cap based on small carriers' cost studies once large carriers move to a forward-looking cost methodology. In addition, carriers may petition the Commission for a waiver to receive additional support should they experience unusual circumstances that require support in excess of the amount distributed.

[2307] *See supra* section VII.D.

948. Some commenters support the Joint Board's recommendation to place rural carriers on a protected support mechanism pending the adoption of a forward-looking cost methodology.[2308] Many commenters also advocate continuing the existing high cost support mechanisms according to the existing rules.[2309] Other commenters, however, offered alternative proposals to modify the existing system based on embedded costs.[2310] The proposals included: capping support levels; changing the benchmark for high cost loop support to an indexed nationwide average loop cost; maintaining the interstate DEM allocation factor to a historic level; and calculating LTS based on the percentage of the common line pool represented by LTS in 1996. A few commenters, however, suggest placing rural carriers on a forward-looking mechanism immediately.[2311]

949. We decline to adopt the Joint Board's recommendation to calculate support for each line based on protected historical amounts at this time because we conclude that such a mechanism would not provide rural carriers adequate support for providing universal service because carriers would not be able to afford prudent facility upgrades. Instead, we adopt the proposal to calculate high cost loop support based on an inflation adjusted nationwide loop cost. We also adopt the proposal to calculate DEM weighting assistance by maintaining the interstate allocation factor defined by the weighted DEM at 1996 levels for each of their study areas. We find, however, that the proposal to calculate LTS based on the percentage of the common line pool represented by LTS in 1996 will not work because we will no longer be able to determine a nationwide CCL charge once the non-pooling carriers switch to per-line, rather than a per-minute, CCL charge. Instead, we adopt a modified form of the Joint Board's recommendation regarding LTS by calculating a rural carrier's LTS support based on the percentage of increase of the nationwide average loop cost because increases in LTS support shall be tied to changes in common line revenue requirements. In order to control the growth of the support mechanisms without impacting an individual carrier disproportionately, we adopt the proposal to cap support levels by continuing to cap the high cost loop support mechanism. We conclude that we should not convert small, rural carriers to an alternative forward-looking cost methodology immediately because the carriers may not be able to absorb a significant change in support levels.

Summary Analysis: Section VIII
SUPPORT FOR LOW-INCOME CONSUMERS

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

[2308] *See supra* section VII.

[2309] *See supra* section VII.

[2310] *See supra* section VII.

[2311] *See supra* section VII.

950. The state commission shall file or require the carrier to file information with the Administrator demonstrating that the carrier's Lifeline plan meets the criteria set forth in the federal rules, and stating the number of qualifying low-income consumers and the amount of state assistance. These recommended reporting and recordkeeping requirements may require clerical and administrative skills.

951. Consumers in participating states who seek to receive Lifeline support shall follow state consumer qualification guidelines. Consumers in non-participating states who seek to receive Lifeline support shall sign a document, provided by the carrier offering Lifeline service, certifying under penalty of perjury that the consumer receives benefits from one of the programs included in the federal default qualification standard. Carriers in non-participating states shall provide consumers seeking Lifeline service with such forms.

952. Carriers can request from their state utilities regulator a period of time during which they may receive universal service support for serving Lifeline consumers while they complete upgrading their switches in order to be able to offer toll-limitation. Carriers may also request from their state utilities regulator a waiver of the requirement prohibiting disconnection of local service for non-payment of toll charges.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

953. Based on the Commission's prior experience administering Lifeline, we find that requiring carriers to keep track of the number of their Lifeline consumers and to file information with the federal universal service Administrator will not impose a significant burden on small carriers since little information is required and the information is generally accessible. Accordingly, we do not anticipate that this requirement will impose a significant burden on small carriers.

Summary Analysis: Section IX
INSULAR AREAS

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

954. Section 254(b)(3) establishes the principle that consumers in insular areas should have access to telecommunications and information services that are reasonably comparable, and at rates that are reasonably comparable, to those provided in urban areas. The 1996 Act does not require and we did not establish any new reporting or recordkeeping requirements in this section.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

955. As set forth in section IX.C, we find that residents and carriers in the insular

areas, including the Pacific Island territories, should have access to all the universal service programs, including those for high cost support, low-income assistance, schools, libraries, and rural health care providers. To the extent that they qualify, we conclude that small entities in insular areas will benefit, both as consumers and providers of telecommunications and information services, from such support.

Summary Analysis: Section X
SCHOOLS AND LIBRARIES

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

956. We will require service providers to certify to the Administrator that the price offered to schools, libraries, library consortia, or consortia that include schools or libraries is no more than the lowest corresponding price. This requirement is designed to ensure that schools, libraries, and library consortia receive the lowest possible pre-discount price. We also require service providers to keep and retain careful records of how they have allocated the costs of shared facilities used by consortia to ensure that only eligible schools, libraries, and library consortia derive the benefits of discounts under section 254(h) and to ensure that no prohibited resale occurs.

957. We will require, for schools and school districts, that the person responsible for ordering telecommunications and other supported services and facilities certify to the Administrator the percentage of students eligible for the national school lunch program. We also permit schools to use federally approved alternative mechanisms to compute the percentage of students eligible for the national school lunch program. This latter option is particularly helpful to schools that either do not participate in the school lunch program or that have a tradition of undercounting eligible students (e.g., secondary schools, urban schools with highly transient populations, and some rural schools). We require libraries to certify to the percentage of students eligible for the national school lunch program in the school district in which the library is located or to which children would attend public school. This requirement is necessary to enable the Administrator to determine how disadvantaged the entity is and, thus, its eligibility for the greater discounts provided to more disadvantaged entities.

958. We will also require that schools and libraries secure a certification from their state or an independent entity approved by the Commission that they have a technology plan for using the services ordered pursuant to section 254(h). Moreover, we will also require them to certify that they have budgeted sufficient funds, and that such funding will have been approved prior to the start of service, to support all of the costs they will face to use effectively all of the purchases they make under this program. This requirement will help to ensure that schools and libraries avoid the waste that might arise if schools and libraries ordered expensive services before they had other resources needed to use those services effectively.

959. We will require schools, libraries, library consortia, and consortia that include schools or libraries to send a description of the services they are requesting to a subcontractor of the Administrator. The subcontractor will then post a description of the services sought on an Internet website for all potential competing service providers to review. We conclude that this requirement will help achieve Congress's intent that schools and libraries take advantage of the potential for competitive bids. We conclude that the request for service should be signed by the person authorized to order telecommunications and other supported services and facilities for the school, library, or library consortium, certifying the following under oath: (1) the school or library is an eligible entity under section 254(h)(4); (2) the services requested will be used solely for educational purposes; and (3) the services will not be sold, resold, or transferred in consideration for money or any other thing of value. If the services are being purchased as part of an aggregated purchase with other entities, schools, libraries, and library consortia will also be required to list the identities of all consortium members. Requiring schools, libraries, library consortia and consortia that include schools or libraries to disclose the identities of consortia members should be minimally burdensome because we only require the institutions to provide basic information, such as the names of all consortia members, addresses, and telephone numbers.

960. We will require schools and libraries, as well as carriers, to maintain records for their purchases of telecommunications and other supported services and facilities at discounted rates, similar to the kinds of procurement records that they already keep for other purchases. We expect that schools and libraries should be able to produce such records at the request of any auditor appointed by a state education department, the Administrator, or any other state or federal agency with jurisdiction to review such records for possible misuse. We conclude carriers should provide notification on the availability of discounts. We find that these reporting and recordkeeping requirements are necessary to ensure that schools and libraries use the discounted telecommunications services for the purposes intended by Congress. For all of these requirements described in this section some administrative, accounting, and clerical skills may be required.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

961. The requirement that service providers certify to the Administrator that the prices they charge to eligible schools, libraries, library consortia, and consortia that include schools or libraries are no more than the lowest corresponding price should be minimally burdensome, given that service providers could be expected to review the prices they charge to similarly situated customers when they set the price for schools and libraries. We reject suggestions to require all carriers to offer services at total service long-run incremental cost levels because of the burdens it would create. Similarly, because schools and libraries that form consortia with non-eligible entities will need to inform the service provider of what portion of shared facilities purchased by the consortia should be charged to eligible schools and libraries (and discounted by the appropriate amounts), it should not be burdensome for carriers to maintain records of those allocations for some appropriate amount of time.

962. With respect to service providers, we reject the suggestion to interpret "geographic area" to mean the entire state in which a service provider serves. This could force service providers to serve areas in a state that they were not previously serving, thereby unreasonably burdening small carriers that were only prepared to serve some small segment of a state. We also reject an annual carrier notification requirement. We conclude that we should only require that carriers provide notification on availability of discounts.

963. Schools and libraries should not be significantly burdened by the requirement that they certify the following: (1) that they are eligible for support under sections 254(h)(4) and 254(h)(5); (2) that the services purchased at a discount are used for educational services; and (3) that those services will not be resold. Assuming that schools and libraries will need to inform carriers about what discount they are eligible to receive, there should be no significant burden imposed by requiring them to certify that they will satisfy the statutory requirements imposed by Congress. Requiring schools, libraries, library consortia and consortia that include schools or libraries to disclose the identities of consortia members should be minimally burdensome because we only require the institutions to provide basic information, such as the names of all consortia members, addresses, and telephone numbers. This information should be readily available to schools, libraries, and library consortia and will be necessary for the Administrator to compile in the event of an audit designed to prevent waste, fraud, and abuse. We note, however, that schools and libraries need not participate in consortia for purposes of the universal service discount program. We conclude that by purchasing as a consortium, individual schools and libraries would be in a better position to take advantage of any price discounts a provider may offer as a result of either efficiencies that it may enjoy from supplying services to a large customer, or from the natural incentives for sellers in a competitive market to offer quantity discounts to large users. We find that the possibility of reaping such benefits will often lead schools and libraries to join consortia despite any attendant administrative burdens.

964. The requirement that schools and libraries submit a description of the services and facilities that they are requesting to the subcontractor of the Administrator should also be minimally burdensome. School and library boards generally require schools and libraries to seek competitive bids for substantial purchases; this forces them to create a description of their purchase needs. We find that it will be minimally burdensome to require schools, libraries, and library consortia to submit a copy of that description to the subcontractor. We further find that this requirement will be much less burdensome than requiring schools and libraries to submit a description of their requests to all telecommunications carriers in their state, as proposed by one commenter. It also will be less burdensome than a requirement that schools and libraries demonstrate that they have participated in a more formal competitive bidding process.

965. We conclude that it will not be unreasonably burdensome to require schools and libraries to secure certification from their state or an independent entity approved by the Commission, that they have undertaken a technology assessment/inventory and adopted a plan for deploying any resources necessary to use their discounted services and facilities

effectively. We expect that few schools or libraries will propose to spend their own money for discounted services until they believe that they could use the services effectively. Therefore, requiring them to secure a certification from an independent expert source that they had done such planning and conducted a technology assessment will be a minimally burdensome way to ensure that schools and libraries are aware of the other resources they need to procure before ordering discounted telecommunications and other supported services and facilities. Furthermore, we observe that the Commission will provide information to schools and libraries lacking information about what resources they may need through a Department of Education website. Although this alternative is more burdensome than the use of a self-certification standard, we find that it is necessary to provide the level of accountability that is in the public interest.

966. We also conclude that the least burdensome manner for schools to demonstrate that they are disadvantaged will be to certify to the Administrator the percentage of students eligible for the national school lunch program in the individual schools or school district because the vast majority of schools already participate in the national student lunch program. We also conclude that allowing schools to use federally approved proxies as a method for computing the percentage of eligible students lessens the administrative burden for schools that either do not participate in the national school lunch program or have a tradition of undercounting eligible students. We also find that requiring libraries to demonstrate their level of disadvantage by relying on national school lunch data for the school district in which they are located provides a reasonable result with a minimal burden. Many libraries urged that they be allowed to use census poverty data, rather than the student lunch eligibility standard. In fact, the ALA volunteered to provide every library with the appropriate poverty level figures, based on the use of a commercially available software program for calculating poverty levels for a 1-mile radius around each library from census data. Those parties, however, failed to provide support for us to conclude that the poverty level in a 1-mile radius of the library was a reasonable approximation of the poverty level for the library's entire service area. Meanwhile, eligible schools and libraries that prefer not to provide information on their levels of economic disadvantage will still qualify for the minimum 20 percent discount on eligible purchases.

967. To foster vigorous competition for serving schools and libraries, we conclude that non-telecommunications carriers must also be permitted to compete to provide these services in conjunction with telecommunications carriers or even their own. Therefore, we encourage non-telecommunications carriers either to enter into partnerships or joint ventures with telecommunications carriers that are not currently serving the areas in which the libraries and schools are located or to offer services on their own. We encourage small businesses both to form such joint ventures and compete on their own.

Summary Analysis: Section XI
HEALTH CARE PROVIDERS

Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements.

968. Section 254(h)(1)(A) provides that a telecommunications carrier shall be required to provide rural health care providers with services at rates reasonably comparable to those charged for similar services in urban areas of their state. The providing telecommunications carrier shall then be entitled to universal service support based on the difference, if any, between the rate charged to the health care provider and the rate for similar services provided to other customers in comparable rural areas of the state. We find that every health care provider, including small entities, that makes a request for universal service support for telecommunications services shall be required to submit to the Administrator a written request, signed by an authorized officer of the health care provider, certifying under oath information designed to ensure that universal service support to eligible health care providers is used for its intended purpose and not abused. These requirements may require some administrative, accounting, and legal skills.

969. To minimize the administrative burden on health care providers to the extent consistent with section 254, we adopt the least burdensome certification plan that will provide safeguards that are adequate to ensure that the supported services will be obtained lawfully and for their intended purpose.

970. We are requiring the Administrator to establish and administer a monitoring and evaluation program to oversee the use of supported services by health care providers and the pricing of those services by carriers. Accordingly, health care providers, as well as carriers, will be required to maintain the same kind of procurement records for purchases under this program as they now keep for other purchases involving government programs or third-party payors. Health care providers must be able to produce such records at the request of any auditor appointed by the Administrator or any state or federal agency with jurisdiction that might conduct audits. Health care providers may be subject to random compliance audits to ensure that services are being used for the provision of state authorized health care, that they are complying with other certification requirements, that they are otherwise eligible to receive universal service support, that rates charged comply with the statute and regulations and that prohibitions against resale or transfer for profit are strictly enforced, particularly with respect to consortia. Such information will permit the Commission to determine whether universal service support policies require adjustment. The Administrator shall also develop a method for obtaining information from health care providers regarding which services they are purchasing and how such services are being used, and shall submit an annual report to the Commission. This report will enable the Commission to monitor the progress of health care providers in obtaining access to telecommunications and other information services.

971. We encourage carriers across the country to notify eligible health care providers in their service areas of the availability of lower rates resulting from universal service support so that rural health care providers are able to take full advantage of the supported services.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

972. We have considered several certification plans suggested by commenters. We seek to adopt the least burdensome certification plan that will provide adequate safeguards to ensure that the supported services are being used for their intended purpose. We reject a suggestion that certification include verification of the existence of a technology plan and a checklist of other information for tracking universal service. Although such plans might be useful in a discount plan where disincentives to overpurchasing are needed, we find that such a requirement will be unnecessarily burdensome where health care providers, many of whom may be small entities, would be required to invest substantial resources in order to pay urban rates for these services. We also reject, for similar reasons, suggestions that health care providers be required to certify that hardware, wiring, on-site networking, and training would be deployed simultaneously with the service. Finally, we reject a proposal that the financial officers of health care provider organizations be required to attest under oath that funds have been used as intended by the 1996 Act, because we find that the pre-expenditure certification described above, which will be submitted to the carrier along with the request for services, is sufficient under these circumstances.

973. To minimize the administrative burden on regulators and carriers, to the extent consistent with section 254, we find that the urban rate should be based on the rates charged for similar services in the urban area with a population of at least 50,000 closest to the health care provider's location. We conclude that this one-step process will be easy to use and understand and will, therefore, be less administratively burdensome than other possible approaches. This method is also preferable to one that would require information about private contract rates, which are proprietary and cannot be obtained without elaborate confidentiality safeguards.

974. We acknowledge the concern of some commenters that requiring carriers to treat the amount of support for health care providers as an offset to the carrier's universal service obligation is anti-competitive for small carriers that have such small funding obligations that they would not receive the full offset to which they were entitled in the current year. Therefore, while we adopt the Joint Board's recommendation to limit carriers to offsets rather than direct reimbursement for the first year's service, we also adopt modifications to reflect these concerns. Although we disagree with NYNEX's suggestion that the statute precludes a mandatory offset rule, we conclude that allowing direct compensation under some circumstances is consistent with the statutory language and sound policy. We conclude that telecommunications carriers providing services to health care providers at reasonably comparable rates under the provisions of section 254(h)(1)(A) should treat the amount eligible for support as an offset toward the carrier's universal service support obligation for the year in which the expenses were incurred. To the extent that the amount of universal service support due to a carrier exceeds the carrier's universal service obligation, calculated on an annual basis, however, we find that the carrier may receive a direct reimbursement in the amount of the difference.

975. This approach should address the potential problem when the total amount of a carrier's rate reductions exceed its universal service obligation in any one year. Moreover,

allowing carriers to receive direct reimbursements should help ensure that they have adequate resources to cover the costs of providing supported services. As some commenters suggest, small carriers will find it difficult to sustain such costs absent prompt reimbursement. Pursuant to this approach, those small carriers who do not contribute to the universal service fund because they are subject to the *de minimis* exemption may receive direct reimbursement as well. We agree with the Joint Board that an offset mechanism is both less vulnerable to manipulation and more easily administered and monitored than direct reimbursement. We conclude, however, that the approach we adopt appropriately balances the concerns of carriers whose rate reductions exceed their contributions in a given year against the need to adopt a reimbursement method that may be easily administered and monitored.

976. To identify rural health care providers, we adopt the Office of Management and Budget's Metropolitan Statistical Area method of designating rural areas along with the Goldsmith Modification because it will meet the "ease of administration" criterion. Since lists of MSA counties and Goldsmith-identified census blocks and tracts already exist, updated to 1995, it should be relatively easy for any health care provider to determine if it is located in a rural area and, therefore, whether it will meet the test of eligibility for support.

Summary Analysis: Section XII
SUBSCRIBER LINE CHARGES AND CARRIER COMMON LINE CHARGES

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

977. The Commission's universal service rules regarding the interstate subscriber line charge and carrier common line charges will not impose any additional reporting requirements on any entities, including small entities. Although we changed the amount of the charges, the changes will have no impact on the information collection requirement, and will not extend the charges to additional carriers. Some accounting skills may be necessary to modify the charges.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

978. Because the SLC and CCL charges will recover ILECs' costs for portions of their network, reporting requirements were deemed necessary to track the costs and allow for their recovery. No alternatives were presented that would have eliminated or substantially reduced those reporting requirements. The Commission's findings have no impact on the information collection requirement and will not extend the charges to any additional carriers.

979. We note, in section XII.C, that some commenters suggest that the SLC cap for businesses with single connections be raised above the $3.50 cap. We reject this suggestion noting that the SLC charge is assessed directly on local telephone subscribers and, therefore, has an impact on universal service concerns such as affordability of rates. We do not agree with the SBA that the SLC should be reduced for businesses with multiple connections.

While not all businesses with multiple connections may be large corporations, we conclude that such businesses have demonstrated that telecommunication services are affordable by subscribing to multiple connections. We are also concerned that a reduction in SLC caps would have a negative impact on the economic efficiency of the Commission's common line recovery regime. We conclude that a reduction in the SLC cap for businesses with multiple connections is not warranted at this time.

Summary Analysis: Section XIII
ADMINISTRATION

Summary of Projected Reporting, Recordkeeping, and Other Compliance Requirements.

980. Section 254(d) states "that all telecommunications carriers that provide interstate telecommunications services shall make equitable and nondiscriminatory contributions" toward the preservation and advancement of universal service. We shall require all telecommunications carriers that provide interstate telecommunications services and some providers of interstate telecommunications to contribute to the universal service support mechanisms. Contributions for support for programs for high cost areas and low-income consumers will be assessed on the basis of interstate and international end-user telecommunications revenues. Contributions for support for programs for schools, libraries, and rural health care providers will be assessed on the basis of interstate, intrastate, and international end-user telecommunications revenues. Contributors will be required to submit information regarding their end-user telecommunications revenues. Approximately 5,000 telecommunications carriers and providers will be required to submit contributions. These tasks may require some administrative, accounting, and legal skills.

Significant Alternatives and Steps Taken to Minimize Significant Economic Impact on a Substantial Number of Small Entities Consistent with Stated Objectives.

981. We reject the suggestion of some commenters that CMRS providers, many of whom may qualify as small businesses, should not be required to contribute, or should be allowed to contribute at a reduced rate, due to their contention that they will not be eligible to receive universal service support. We note that section 254(d) provides that "every telecommunications carrier that provides interstate telecommunications services shall contribute on an equitable and nondiscriminatory basis" with no such exemption for any CMRS providers or ineligible carriers.[2312] We find, however, that entities that provide only international telecommunications services are not required to contribute to universal service support because they are not "telecommunications carriers that provide interstate telecommunications."[2313] To the extent that small carriers provide only international telecommunications service, they will not be required to contribute to the universal service

[2312] 47 U.S.C. § 254(d).

[2313] *See infra* section XIII.B.2.

support mechanisms.

982. As set forth in section XIII.D, we conclude that small carriers should not be given preferential treatment in the determination of contributions to the universal service support mechanisms solely on the basis of being small entities because of section 254(d)'s explicit directive that every telecommunications carrier that provides interstate telecommunications services shall contribute to the preservation and advancement of universal service. We have considered the suggestions of commenters regarding various graduated contribution schemes that would favor small entities. We reject these suggestions based on the language of the statute, legislative history, and the regulatory burdens that such graduated schemes would entail. We have considered commenter suggestions that small carriers be exempted from contribution on the basis of the *de minimis* provision of section 254(d). We reject these suggestions on the basis of the legislative history surrounding section 254(d) that provides that the *de minimis* exemption should be limited to those carriers for whom the cost of collecting the contribution exceeds the amount of the contribution.[2314] As set forth in section XIII.D, we find that if a contributor's contribution to universal service in any given year is less than $100.00, that contributor will not be required to submit a contribution for that year. We conclude that expanding the definition of *de minimis* to include "small" carriers would violate the "pro-competitive" intent of the 1996 Act and require complex administration and regulation to determine and monitor eligibility for the exemption. We believe that small entities may benefit under the *de minimis* exemption as interpreted in the Order without an explicit exemption for all small entities. We also believe that small payphone aggregators, such as grocery store owners, will be exempt from contribution requirements pursuant to our *de minimis* exemption.

E. Report to Congress

983. The Commission shall send a copy of this FRFA, along with this Report and Order, in a report to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. § 801(a)(1)(A). A copy or a summary of this FRFA will also be published in the Federal Register.

[2314] Joint Explanatory Statement at 131.

XV. CONCLUSION

984. In this Order, we have adopted rules based upon the recommendations of the Joint Board, the principles set forth by Congress, and the additional principle of competitive neutrality. The Act instructs the Commission, on the recommendation of the Joint Board, to adopt a new set of universal service support mechanisms that are explicit and sufficient to preserve and advance universal service. The steps we take today will ensure that access to telecommunications, including interexchange services, advanced telecommunications, and information services, is available in all regions of the nation. Consistent with the Joint Board's recommendation and in cooperation with the states, we have adopted rules that will ensure quality telecommunications services at affordable rates to all consumers, including low-income consumers and those in rural, insular, and high cost areas. The rules and policies established herein also will have a profound impact upon education and public welfare by providing advanced telecommunications and information services to schools, libraries, and rural health care providers across the nation. Eligible schools and libraries will be able to purchase telecommunications services at discounted rates and eligible rural health care providers will have access to telecommunications services at rates comparable to those in urban areas. As required by the 1996 Act, these universal service mechanisms, which will be supported by equitable and nondiscriminatory contributions by all telecommunications carriers that provide interstate telecommunications services, are explicit, specific, and predictable, and will be sufficient to preserve and advance universal service.

XVI. ORDERING CLAUSES

985. Accordingly, IT IS ORDERED that, pursuant to the authority contained in sections 1-4, 201-205, 218-220, 214, 254, 303(r), 403, and 410 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151-154, 201-205, 218-220, 214, 254, 303(r), 403, and 410, the REPORT AND ORDER IS ADOPTED, effective 30 days after publication of a summary in the Federal Register. The collections of information contained within are contingent upon approval by the Office of Management and Budget.

986. IT IS FURTHER ORDERED that Part 54 of the Commission's rules, 47 C.F.R. § 54 is ADDED as set forth in Appendix I hereto, effective 30 days after publication of the text thereof in the Federal Register.

987. IT IS FURTHER ORDERED that Part 36 of the Commission's rules, 47 C.F.R. § 36 is AMENDED as set forth in Appendix I hereto, effective 30 days after publication of the text thereof in the Federal Register.

988. IT IS FURTHER ORDERED that Part 69 of the Commission's rules, 47 C.F.R. § 69 is AMENDED as set forth in Appendix I hereto, effective 30 days after publication of

the text thereof in the Federal Register.[2315]

989. IT IS FURTHER ORDERED that, pursuant to section 5(c)(1) of the Communications Act of 1934, as amended, 47 U.S.C. § 155(c)(1), authority is delegated to the Chief, Common Carrier Bureau, to perform the following functions: (1) to propose, approve, or deny a new definition of a service area of a rural telephone company pursuant to 47 U.S.C. § 214(e)(5) and 47 C.F.R. § 54.307; (2) to review an appeal filed by a carrier contending that a state commission has improperly denied a request for waiver of the rule prohibiting disconnection of Lifeline service for non-payment of toll charges; and (3) to resolve a carrier's request for a waiver of the rule prohibiting disconnection of Lifeline service for non-payment of toll charges when the relevant state commission chooses not to act on such a request.

990. IT IS FURTHER ORDERED that if any portion of this Order or any regulation implementing this Order is held invalid, either generally or as applied to particular persons or circumstances, the remainder of the Order or regulations, or their application to other persons or circumstances, shall not be affected.

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton
Acting Secretary

[2315] We also take this opportunity to correct errors made in the publication of 47 C.F.R. § 69.612 of those portions of section 69.612 of the Commission's current rules, which will remain in effect.

Statement of Chairman
Reed E. Hundt on the
Access Reform and Universal Service Proceedings

The Commission's votes today on items labelled universal service and access reform follow our vote last August on interconnection, and complete the trilogy of major actions implementing the 1996 Telecommunications Act. Many, many other decisions have been made on the way, but we plainly have reached the end of phase one of the Act: the replacement of pro-monopoly rules with pro-competition rules, while at the same time extending our country's commitment to provide affordable telecommnications access to all consumers, kids, teachers, patients, and doctors.

It has been a long, wide-ranging trip for the Commission since the Act was signed in February 1996. Congress asked us to overhaul in its entirety the national policies that apply to the communications industry. We have received nearly 200,000 pages of comments, millions of Internet "hits," hundreds of thousands of emails, thousands of letters written by working men and women on kitchen tables late at night, and had hundreds of meetings with teachers, doctors, Congressmen, Senators, lobbyists, lawyers, businesspersons, and citizens. The dedicated civil servants at the agency have worked impossibly long hours and made many, many personal sacrifices. I am immensely grateful to them, and the country owes them a tremendous debt.

The work has been arduous, but it has been a joy. Throughout the process we have believed that Congress gave us a high calling --write the policies for the communications sector that will lead America into the 21st century -- and we have considered it a privilege to play our part.

Today's items mark the end of the beginning of our deregulatory, procompetitive rule-writing. By our decisions today we

--assure that local basic residential telephone service prices need not be increased by any action of the Commission or Congress, although industry achieved consensus in urging us specifically to increase local service prices by raising the residential subscriber line charge.

--guarantee that long distance prices will fall, and specifically that basic schedule customers will see their first general price decreases since 1989.

--generate economic benefits to business and residential consumers exceeding $25 billion during the next five years (making this the single best day for consumers in this agency's history).

--begin to reduce unnecessary subsidies on multiple phone lines.

--mark the beginning of a new policy for a national data network that is based on the fundamental precept that Internet services could be in a "subsidy-free zone" -- such that internet communication neither relies on nor gives a subsidy.

--assure that all rural telephone companies will be supported in their mission of assuring affordable service to all Americans in high cost areas.

--craft an interstate access pricing policy that invites a greater breadth of competitive entry into the local exchange market.

--create a funding mechanism that will combine national and state monies to connect every classroom in the country to the information highway.

--connect every rural health care facility in the country to the information highway.

I have attached to this statement certain representative models of the impact of today's votes on certain customers. There is no guarantee that every consumer will believe that he or she is better off as a result of today's decisions. I firmly believe, however, that as a result of today's decisions the overwhelming majority will buy more communications services with their money or will pay less for the same services they buy today. As competition makes more significant inroads in telecommunications markets these results will be increasingly dramatic.

I believe further that the replacement of the regime of monopoly with the new paradigm of competition will lead to productivity gains, job growth, investment increases,and the continuing vitality of the American economy. It is not too much to hope that our commitment to a de-regulatory, pro-competitive rule of law in our communications sector will play a significant role in persuading all nations to take this step. The triumph of the World Trade Organization negotiations on telecommunications in February makes this hope, in my view, a substantial likelihood. We can all dream that as a result world economic growth -- driven by the spread of an accessible, ubiquitous communications network -- is on the verge of massive acceleration. Nothing could be more inspiring than the vision of major progress in the global fight against poverty, disease, and misery. Nothing less than that is at stake in our effort to spark sustained, significant, competition-driven growth in our communications and information sector, as ordered by Congress in the landmark Telecommunicatons Act of 1996.

On a personal note, many years ago I had a conversation with then-Senator Al Gore about his wish to see a schoolgirl in Carthage, Tennessee be able to learn from the limitless resources of the Library of Congress, without being barred by time, distance, and lack of money from such opportunities. He explained to me -- and this was long before the Internet was invented -- that fiber optic cable would make the connection between the schoolgirl and a bright future.

From this conversation came this Commission's desire to include classroom

connections as an essential goal of universal service. President Clinton in several State of the Union speeches and many other appearances mobilized a national commitment to this goal. And as Vice President, Al Gore has never let a week, or perhaps a day, go by without working to bring to every schoolchild the opportunity to learn on the information highway -- a term he coined.

Thanks to the untiring efforts of Senators Snowe, Rockefeller, Exxon, Kerrey, Hollings, Congressman Markey, Secretary of Education Riley, and many others the Commission was given the legislative mandate to fund connections to every one of two million classrooms in all 100,000 schools in our country. School groups from all over the country supported these congressional initiatives and then pursued their implementation in our rules.

Today, at last, after three and one-half years of work, we can say that we have by law and rule a fully funded national commitment and national plan to connect every classroom to the information highway. We recognize that curriculum reform, teacher training, computer acquisition, software development, private foundation guidance, and much else remains to be done in order to bring the benefits of the communications revolution to the students and teachers of America.

Yet we are proud we have come this far. The Commission has delivered the result our children deserve, and I am completely delighted to have been a part of this process.

I want to acknowledge with a depth of gratitude and respect that words cannot express to all the colleagues and friends inside and outside the Commission who have helped us find our way in these decisions. Others will forgive me if I mention here only those who have been associated with my personal office team on these items: Blair Levin,John Nakahata, Karen Brinkmann, Ruth Milkman, Diane Cornell, Renee Licht, Jackie Chorney, Julius Genachowski, Tom Boasberg, Ruth Dancey, Cozette Ballestros, Monica Lizama, Aiysha Coates, Vanessa Lemme, Judith Mann, Terry Matsumoto, Laverne Braddy . It has been an enormous pleasure and honor to work with you.

Senior Citizen in Miami

- Calls grandchildren in California for 10 minutes every other week.
- No calling plan, long distance bill is about $4.00 per month.
- Under FCC proposal, local bill is unchanged, long distance bill falls by about 8%.

Travel Agency in Sioux Falls, SD

- Three phone lines for two agents. Each agent makes about 2.5 hours of long distance calls per day.

- Total long distance bill (all lines) is about $790 per month, about $930 including local.

- Total bill under FCC proposal declines about $52 or about 6%.

Funeral Parlor - Anywhere, USA

- Funeral parlor has three lines, mainly for incoming calls. Owner makes 15 minutes of long distance calls/month.

- Current total bill (local and LD) is about $157 ($150 local and $7 long distance).

- Under FCC proposal, total bill

increases by about $13.00/month.

Two Line Family in Charleston

- Young couple with two lines, college friends and relatives throughout the South.
- Current long distance bill is $60/month under a $.10/minute calling plan.
- Under FCC proposal, family's

savings on total bill (local and long distance) is about 4% ($2.50).

May 7, 1997

Statement of
Commissioner James H. Quello

RE: FEDERAL-STATE JOINT BOARD ON UNIVERSAL SERVICE (CC Docket No. 96-45),

ACCESS CHARGE REFORM (CC Docket No. 96-262), and

PRICE CAP PERFORMANCE REVIEW FOR LOCAL EXCHANGE CARRIERS (CC Docket No. 94-1).

Today, the Commission has established rules to implement the Universal Service provisions of the Telecommunications Act of 1996, as well as rules to restructure the access charge system while also initiating reductions in the levels of those access charges. I have believed throughout my participation in the debates regarding universal service and access reform that, as much as possible, we should seek to ensure that consumers experience the benefits of our actions. To this same end, we should try to avoid the possibility that total bills for groups of consumers could increase as a result of implementing new universal service programs and moving into a new access charge regime.

Universal Service

This Commission now has taken steps to establish processes for the administration of universal service funds in a way that allows the commitments represented in this section of the 1996 Telecommunications Act to be fulfilled. We have labored to develop a reasonable plan that will provide necessary and sufficient funds for schools and libraries as well as other universal service programs. We also have sought to avoid collection of funds beyond those legitimately needed to help make new and important services available to students and teachers in inner city, suburban and rural schools from Takoma Park, D.C., to Tacoma, Washington, from McAllen, Texas to Mackinac Island on the Upper Peninsula of Michigan.

We have achieved this balance by establishing funding necessary to begin the program at a reasonable level, with a provision that allows schools and libraries to begin the program January 1, 1998. By this time, we would hope that participating groups will have had the opportunity to develop their plans. Our decision to start the program with lower funding in the first six months, increasing in the following years, gives the program early constraint, with flexibility at later periods when greater demand is likely to develop. As a result, I believe this decision provides for new universal service funding within the limits of what consumers around the country are willing to pay.

The issue of what consumers are prepared to pay has been a very difficult one. The need for our attention to the issue, however, has been clearly expressed in many ways. It has required the Commission to balance the need for programs involved in universal service that are critically important to the future of this country with their cost. In this respect, this universal service proceeding is one of the most important decisions in this agency's history. At the same time, we have heard a consistent message from around the country that consumers and businesses are not necessarily willing to pay for these services through higher total bills for telecommunications services.

With respect to funding for health care subsidies, we have endeavored to make sure that rural, non-profit health care facilities have sufficient funding to meet the needs for providing services in communities that otherwise might not have the same resources that are available in urban communities.

There also are many other policy and market issues that will need to be resolved in a new universal service environment. For instance, I believe it remains to be seen how cable and wireless industries will continue to develop to play a greater role in the telecommunications services that will meet future universal service needs. As these developments occur, the Commission may continue to monitor the equity of contribution and recovery of universal service funds by paging services as well as the extent to which wireless services in general

should contribute for intrastate services.

Access Reform

The Commission's actions today on access reform involve two components: (1) several structural changes that will cause access components to move to more reasonable categories and to become subject to competition where possible; and (2) reductions in the current level of access charges, largely accomplished through revision of the productivity and sharing mechanism in LEC price caps.

Where this decision changes the structure of end user charges, as in our treatment of business and residential customers, and consumers with second or multiple lines, I believe our decisions should be -- and are -- characterized by balance. As a result of this necessary reform of the access payment structure, charges should remain within reasonable bounds and should help to promote the development of competition and consumer benefits.

I also believe this Commission would be remiss in our regulatory duties to the American public and responsibilities to our licensees if we were to restructure universal service without concurrently engaging in access charge reform. We have talked about this step for quite some time. Many parties have expressed their views in a very public fashion as to whether or not this step is warranted, or to what degree access charges should be reduced. I believe that this step to restructure and reduce the level of access charges is the right thing to do and this is the right time to do it.

The consumers and users of telecommunications services are the intended beneficiaries of today's actions regarding access reform. Now that these decisions are adopted, I believe it will become clear that we have done our best to ensure that consumers do not bear the burden of implementing the new universal service program and access charge reform. Our actions also represent a fundamental part of the Commission's effort to facilitate competition in the local exchange marketplace, in this case by reducing access charges paid to LECs by interexchange carriers.

The primary vehicle for this reduction is the decision to change the existing combinations of productivity factors, or "x-factors", and sharing options to a single productivity factor of 6.5% accompanied by no sharing obligation. As a result, this decision continues the Commission's efforts to move away from the lingering remnants of rate of return regulation for local exchange carriers. Today's decision will complete the movement of price cap LECs away from the sharing obligations that were part of the past system.

Looking to the Future

I want to emphasize that today's actions represent a first step in many respects.

Concerning universal service, this is not a day to declare victory. There is much left to be done by the Commission, the states, temporary and permanent fund administrators, school districts, libraries, health care facilities, parties developing cost models, and telecommunications companies seeking to provide services and enter new markets. This is definitely an important day, but the real effort is just beginning. That effort will require investment, planning, training in using services, and community, professional, and corporate involvement, and it will only be successful after the continuing involvement, in community after community, by the many parties who have so diligently participated in this proceeding.

The Commission's action to increase the productivity factor not only results in reduced access charges in the first year, but also in further reductions in access charges in subsequent years. In another respect, it may very well become necessary very soon for the Commission to consider how to supplement today's decision to allow for pricing flexibility by LECs as competition develops to a greater level in the local marketplace. One possible way to provide that flexibility might be through relaxing the 6.5% productivity factor where LECs can meet criteria to demonstrate sufficient competition.

At the same time, later steps might also include the potential for checks and balances in the event that competition in the local exchange marketplace does not develop as soon as some seem to expect. Once again, down the road the Commission may need to consider more

specific measures to ensure that the platforms necessary for competition truly are available. It is my hope that those steps won't be necessary.

Finally, some parties have warned recently that any actions by this Commission to lower access charges may cause LECs to seek to raise local phone rates. That matter will become an issue for state commissions, and it is my hope that they will respond to any efforts to raise local rates by ensuring that consumers ultimately benefit from federal and state actions to implement the Telecommunications Act of 1996 and any related decisions.

May 7, 1997

Separate Statement
of
Commissioner Susan Ness

Re: Universal Service; Access Reform; Price Cap Review

Today we reach another milestone in our efforts to secure for consumers the myriad benefits made possible by the Telecommunications Act of 1996. We are steadfastly fulfilling the tasks assigned to us by Congress in a manner that will prove the wisdom -- and realize the vision -- of this landmark legislation.

Our pursuit has many facets. We must eliminate impediments to competition, ensure fair rules of engagement for all market participants, safeguard the interests of residential consumers, especially those with limited incomes and those in high cost areas, promote economic efficiency, and lower prices to consumers. Today's orders represent substantial progress on all these fronts.

Much of what we are doing is driven by law and by economics. But the results of our decisions have a human face:

> Will a poor family in Appalachia be able to summon the police or fire department in an emergency?
>
> Will a critically ill patient in a remote region of Montana have her tumor quickly and accurately diagnosed?
>
> Will a curious high-school freshman have an opportunity to view Thomas Jefferson's valedictory letter, in his own aged but still powerful hand?

Will an elderly widow be less hesitant to break her loneliness with longer and more frequent calls to her great-grandchildren?

Today brings us closer to a day when these questions can all be answered "yes."

Fifteen months after enactment of the Telecommunications Act, the transition to a new industry paradigm remains far from complete. The road is not straight, or smooth, or free from peril. But a steady course -- and a shared determination -- can bring us to the desired destination.

We still have far to travel to resolve issues of support for high-cost areas. I believe we have a sound plan and a clear timetable for implementation, but we still face two main obstacles. The proxy models, already impressive feats of cost engineering, still require further refinement before they can reliably be used to target federal cost support. And a new consensus must be achieved before support essential to maintain affordable telephone service in high-cost states can be drawn from states with lesser need, as I believe the Congress of the United States clearly intended. In the meantime, we can make only incremental changes in the implicit subsidies that currently support the high-cost services provided by large price cap telephone companies.

For the smaller rural companies, change will come even more gradually. This is consistent with Congress's expectation that competition would arrive more quickly in the cities and the suburbs. In the interim, we recognize that rural economies must not face unnecessary dislocations.

The need to avoid harmful dislocations, while also encouraging beneficial change, is crucial to much of what we are doing in the access reform and price cap orders. We are implementing many changes that will help to ensure an orderly transition from monopoly to fair and efficient competition.

In particular, the recovery of more costs through flat-rated charges instead of

usage-sensitive charges will reduce the exposure of incumbent telephone companies to "cherry-picking" by new entrants, even as they also expand the range of customers likely to be offered competitive alternatives. Completion of the conversion to a three-part rate structure for tandem-switched transport will eliminate a historical artifact, but allow time for affected carriers to adjust. The new X-factor more accurately reflects the productivity gains that can reasonably be expected from price cap carriers, while avoiding radical reduction of telephone company access revenues and proposals that would have unfairly penalized those companies that have most assiduously conducted themselves in accordance with the incentives we deliberately created.

We prefer to rely on marketplace forces rather than regulation to drive investment decisions and price reductions. Some will fault us for not acting more aggressively; others will complain that we are too heavy-handed. My own view is that each decision, and all of the many issues in these orders, has been approached with balance and sensitivity, fairness and principle.

Not everyone will be satisfied. But no one can say that we have not read the law, considered economic theories and business realities, consulted our consciences, and sought to achieve as much fairness as is humanly possible.

I readily confess that I cannot muster the same passion for restructuring the arcane and impenetrable Transport Interconnection Charge as for devising a completely new regime to provide discounts for schools and libraries to access telecommunications and information services. Though I am fully committed to full realization of all of the universal service provisions, the Snowe-Rockefeller-Exon-Kerry provisions reflect an especially bold vision. For our part, we have used our creativity to harness the magic of competition to reduce the costs of the support program, created incentives to ensure only prudent use of supported services, targeted discounts to minimize the danger of a widening gap between information haves and have-nots, and sought at every turn to maintain our commitment to competitive neutrality.

Even more important, we have sought to leave crucial decisions in the hands of educators and librarians, scattered throughout the country, rather than in the hands of Washington-based administrators. And, best of all, we have arranged a smooth take-off that will avoid creating unsustainable financial burdens on carriers and consumers, allowing competition and growth and declining prices -- rather than rate increases -- to supply the necessary funds.

In this area, as in the others addressed by today's orders, we have applied all our energy, and all our skill, to make the best decisions, based on our current knowledge and the law. A continuing commitment to constructive dialogue by all interested parties -- telephone companies, long distance companies, wireless companies, small businesses, large businesses, residential consumers, state regulators, and members of Congress -- is critical to continued progress. At the end of the day, fairness to all parties and demonstrable benefits to consumers are the standards by which we will all be judged.

May 7, 1997

Separate Statement of Commissioner Rachelle B. Chong

Concurring in Part, Dissenting in Part

Re: *In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45.*

I. Introduction

In compliance with Section 254 of the Telecommunications Act of 1996 ("1996 Act"), we adopt today major changes to our universal service system in order to promote telephone service for all Americans, no matter where they live. The universal service plan we set in motion today will begin the process of moving away from our past "system" of universal service policies. Our old policies relied on a patchwork quilt of both implicit and explicit subsidies both at the federal and state levels. Our new federal universal service system will be harmonious with the "procompetitive, de-regulatory national policy framework" mandated by the 1996 Act,[2316] because, for the first time, competitors to local telephone companies will be allowed to receive universal service support. Because I am a fierce advocate of the introduction of competition into all telecommunications markets, I believe that the decision we issue today is critically important for us to remain faithful to the procompetitive portions of the Act.

The Commission's job has been made difficult because the 1996 Act asks us to achieve many important, but potentially conflicting, goals. We must restructure our current

[2316] Joint Explanatory Statement of the Committee of the Conference at 113 (H.R. Rep. No. 104-458).

hodge podge of universal service mechanisms and make it compatible with a competitive marketplace by wringing out implicit subsidies that, in a monopoly-based environment, helped to fund universal service.[2317] We must also raise funds to implement some social programs, including provision of discounted telecommunications services to eligible schools and libraries,[2318] provision of rural health care providers with comparable rates to urban areas,[2319] and enhancing access to the public telephone switched network by low income consumers and those living in rural, insular and high cost areas.[2320] At the same time that the Commission is asked to accomplish all of these goals, however, we are also charged with ensuring that consumers receive quality services at just, reasonable and affordable rates.[2321]

Pursuant to the mandates of the 1996 Act, we today have identified the services to be supported by the federal universal service support mechanisms, and established a timetable for implementation.[2322] We are not able to implement all of the planned changes today, however. Universal service costs are very difficult to determine because they are, for example, intermingled with other costs, such as forward looking economic costs of interstate access or historic costs associated with the provision of interstate access services. Thus, we cannot remove universal service costs from interstate access charges until we can properly identify those costs. To this end, we have undertaken a process in cooperation with our state colleagues to identify implicit subsidies and to either remove them or make them

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[2317] Because Section 254(e) of the Act mandates that universal service support be "explicit and sufficient," we put in place rules that identify and convert current federal universal support to explicit federal support mechanisms. 47 U.S.C. Section 254(e).

[2318] 47 U.S.C. Section 254(h)(1)(B).

[2319] 47 U.S.C. Section 254(h)(1)(A).

[2320] 47 U.S.C. Section 254(b)(3).

[2321] 47 U.S.C. Section 254(b)(1).

[2322] 47 U.S.C. Section 254(a)(2).

explicit. This is a time consuming process, but we have set forth a schedule to achieve the goals set out for us by January 1, 1999.

Given the mix of federal, state and consumer interests involved in our universal service decision today, it has been a formidable challenge to fashion a system of universal service support mechanisms that will achieve the principles and goals Congress set for us.[2323] I support the majority of the item, however, I write separately to concur in part and dissent in part.

II. Contributions and Assessment

In the past, the collection of monies to fund universal service goals burdened some segments of the telecommunications industry more than others. Today, we make the collection of federal universal service contributions more fair and competitively neutral, by enlarging the sea of contributors that will help support the universal service system. I read Section 254(d) of the 1996 Act and its associated legislative history to require the Commission to cast its universal service contributions net widely, to exempt only those who meet the *de minimis* test,[2324] and to ensure that any contributions are made on an equitable and nondiscriminatory basis.

I respectfully dissent, however, from the portion of the Commission's decision that requires carriers providing interstate telecommunications services to base their contributions not only on interstate revenues, but on revenues derived from their foreign or international telecommunications services as well. Contrary to the statement of the majority, I believe that the Joint Board did not recommend this result. The Joint Board suggested that we

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[2323] Section 254(b) contains the principles set forth by the 1996 Act that have guided me in my work.

[2324] Joint Explanatory Statement at 131.

construe the phrase "all carriers that provide interstate service" broadly.[2325] And, the Joint Board did include "international/foreign" on the exemplary list of services whose "interstate portion" should be counted as interstate communications.[2326] To leap from these statements, however, to a conclusion that the Joint Board specifically recommended that we base an interstate carrier's contribution to the universal service fund on international communications revenues as well as interstate revenues, is a jump that I cannot make.

I am also concerned that this decision is contrary to the Congressional mandate in Section 254(d) that carrier contributions to the universal service fund be on "an equitable and nondiscriminatory basis."[2327] I believe that it is inequitable to include international revenues for purposes of calculating a carrier's universal service contribution because it will place any carrier with both interstate and international revenues at an economic disadvantage against other carriers that provide only international service. Once the recently-adopted World Trade Organization Agreement becomes effective, when presumably foreign carriers will compete directly with U.S. companies for the international business of U.S. customers, this disparity will place U.S. carriers at a very real competitive disadvantage. The inequity is particularly egregious in the case of a carrier such as Comsat that provides very little interstate service, but substantial international service. Requiring Comsat to contribute to the universal service fund on the basis of its international revenues is truly a case of the tail wagging the dog.

III. Scope of the Commission's Authority Over the Universal Service Support Mechanisms

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[2325] *In the Matter of Federal-State Joint Board on Universal Service,* CC Docket No. 96-45, 12 FCC Rcd 87, 784 ("*Joint Board Recommendation*")

[2326] *Joint Board Recommendation* at 785.

[2327] 47 U.S.C. Section 254(d).

On the issue of the appropriate scope of the revenue base for federal universal service support, I agree with my colleagues that Section 254(d) grants the Commission the authority to assess contributions for the universal service support mechanisms on both the interstate and intrastate revenues of interstate carriers. I believe that our authority derives first and foremost from the plain language of Section 254.[2328] While I support our decision today to decline to exercise the entirety of our authority as to some portions of the federal universal service program, I read the statute as standing for the proposition that Congress granted the Commission authority pursuant to Section 254 to set up a comprehensive federal universal service program that states were free to supplement as desired.[2329] As a result, I think it would be a better reading of Section 254 to allow the Commission to assess universal service contributions on the revenues (either interstate or intrastate) of interstate carriers, because it most accurately embraces the spirit of the national social programs (school and libraries, rural health care, low income, rural, insular, high cost) proposed or mandated in this section.

IV. Proxy Models for High Cost Support for Non-rural Carriers

I highlight the fact that the Commission is not "flash-cutting" to a new federal universal service system in today's order. Like some of my state colleagues,[2330] I am somewhat disappointed that at this time we are not ready to choose a platform for a cost model for high cost support as to non-rural carriers. It would have been my preference to have chosen a model as a platform at this juncture, and continued to refine it over the next

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[2328] *See, e.g.*, Section 254(a) providing that the Commission implement the rules recommended by the Federal-State Joint Board.

[2329] *See* Section 254(f), entitled "State Authority," where states are granted the discretion to "adopt regulations not inconsistent with the Commission's rules to preserve and advance universal service."

[2330] State Members of the Federal-State Joint Board on Universal Service, *State Members' Second Report on the Use of Cost Proxy Models*, CC Docket No. 96-45, (April 21, 1997).

months.

That being said, I write to express my continuing support for a cost model approach to high cost support for non-rural carriers. Based on the significant progress made by the Federal and State staffs, the proponents of the remaining cost models under consideration, and other interested parties, it is my firm view that a properly-crafted cost model can be used to calculate the forward-looking economic costs for specific geographic areas to determine the level of support a non-rural carrier may need to serve a high cost area.

I am pleased, however, that we have committed to choosing a forward-looking economic model for non-rural carriers as a platform by year's end. This ought to give the federal and state staffs enough time to work out any remaining kinks and improve the chosen cost model, so that it is ready for the January 1, 1999 start date of the new high cost support program for non-rural carriers.

V. High Cost Support for Rural Carriers

It is clear that rural telephone carriers face unique issues that non-rural carriers do not encounter. I have heard from many rural carriers who have expressed their view that the cost models that we are developing for non-rural carriers may not be appropriate for them. I remain especially concerned about those rural carriers who face special challenges and circumstances, such as those serving very remote or insular areas.[2331]

As a result of this concern, I am pleased that during our transition period, all rural carriers will continue to receive high cost support, based upon the existing high cost loop fund, dial equipment minutes (DEM) weighting, and long term support program. Under

[2331] For example, it is my understanding that the current cost models under consideration do not reflect any data from very remote and insular areas, such as Alaska, Guam, CNMI, American Samoa or Puerto Rico.

our plan, rural carriers would not begin to transition to a either a system of high cost support based on forward-looking costs or some other mechanism until January 1, 2001. I believe this will appropriately ease the transition for such carriers, while giving us time to test the effectiveness of cost models for non-rural carriers.

VI. Schools & Libraries Program

With respect to the schools and libraries program, I am very pleased to be supporting this splendid new program to introduce our children and our communities to telecommunications and information services and technologies. As a computer literate Commissioner, I am confident that this program will help catapult our society further into the Information Age, by introducing our citizens and young people to the vast world of information that can be so easily accessible. Having handed the education and library communities the keys to unlock the Information Age for their constituents, I wish them the best in further implementing this ambitious and historic program. It is up to them to purchase and maintain the necessary computers and hardware, develop any necessary software, and train the teachers and librarians to use the telecommunications and information systems. This is a formidable task, but I know how dedicated these communities are to this project.

We have generally remained true to the carefully considered Joint Board recommendations in this area. While we have made some minor adjustments where the record evidence supported change, overall, we have put into place the program the Joint Board envisioned and agreed upon.

Throughout the Joint Board process, I have consistently expressed my view that our tremendous enthusiasm as to the many benefits of an ambitious and far reaching schools and libraries program must be tempered by careful and prudent consideration of the costs of such a program. We Commissioners are the guardians of the telephone ratepayers. And with that hat on, I continue to remind my colleages that, at the end of the day,

telecommunications ratepayers will pay the bill for all the social programs we adopt in today's decision. In this item, I think we have appropriately balanced these concerns, and I am therefore pleased to support our program because it contains sensible fiscal constraints. For example, we have adopted a "pay-as-you-go" mechanism for the annual $2.25 billion program. This mechanism means that we will only collect funds on an as-needed basis. This will protect American ratepayers from paying for a program that does not spend all of the monies collected. In addition, the Administrator shall provide the Commission with quarterly reports on spending levels of the program, so that the Commission will have necessary information to make any future adjustments to the program as warranted.

We have also agreed on a sensible start date for the program of January 1, 1998. This should provide schools and libraries plenty of time to make necessary preparations for the program, give state commissions and legislative bodies time to create a comparable intrastate discount program, and also gives the interim administrator time to put into place the necessary administrative mechanisms and fiscal safeguards to operate the program.

I concur in the decision to provide schools and libraries with substantial discounts for Internet access and internal connections, and to allow both telecommunications providers and non-telecommunications providers to receive reimbursement from the universal service fund for offering these services. Although I concur with the competitively neutral result of the majority's decision, I do not agree with the legal rationale for this decision.

The Joint Board recommended that "the Commission adopt a rule providing discounts for Internet access . . . to schools and libraries *pursuant to section 254(h)(2)(A)*."[2332] The Joint Board made a similar recommendation with regard to internal

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[2332] *Joint Board Recommendation*, 12 FCC Rcd at 323, Para 462.

connections.[2333] Section 254(h)(2) acts as the legal foundation to support discounts for non-telecommunications services, the Joint Board reasoned, because of the emphasis on

[2333] *Joint Board Recommendation*, 12 FCC Rcd at 331-332, para 476.

enhancing *access* to advanced telecommunications and *information* services.[2334] The Joint Board's decision did not make a distinction based on the identity of the provider. Since the Joint Board's recommendation was both competitively neutral and consistent with the statutory language, I supported it. I would have preferred to rely on the same rationale for this decision.

The Commission's decision departs from that used in the Joint Board's Recommended Decision. The majority dismisses subsection (h)(2), and instead offers a different legal rationale that relies on the identity of the service provider. In the majority's view, schools and libraries are eligible to receive discounts for Internet access and internal connections *provided by telecommunications carriers* under Sections 254(c)(3) and 254(h)(1) because of the general references to "services" rather than "telecommunications services" in those sections. The lack of the qualifying term "telecommunications," the majority reasons, demonstrates that subsection (h)(1) authorizes discounts for all types of services, even non-telecommunications services. However, since subsection (h)(1) clearly applies only to services provided by telecommunications carriers, the majority finds itself in the position of having to develop a different rationale so that the schools and libraries program will fulfill Congress' directive of competitive neutrality. Accordingly, the decision relies on Sections 254(h)(2) and 4(i) for authority to extend such discounts for services *provided by non-telecommunications carriers*.

Unlike the majority, I believe that rather than distinguishing by the identity of the provider, Congress divided section 254(h) by the types of services provided -- with h(1) addressing the provision of telecommunications services, and h(2) addressing access to advanced services, such as Internet access.

[2334] *Joint Board Recommendation*, 12 FCC Rcd at 332, para. 476. Section 254(h)(2) provides in pertinent part: "The Commission shall establish competitively neutral rules -- (A) to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries . . . ." 47 U.S.C. § 254(h)(2)(A).

Section 254(h)(1)(B) applies only to the provision of telecommunications services by telecommunications carriers. The language of the statute is clear: a telecommunications carrier must provide a discount to schools and libraries for "any of its services that are within the definition of universal service under [subsection] (c)(3)." Section 254(c)(3) states that: "In addition to the services included in the definition of universal service under paragraph (1), the Commission may designate additional services for such support mechanisms for schools, libraries, and health care providers for the purposes of subsection (h)." Contrary to the majority's interpretation, I believe that the word "services" in this context relates directly back to the "telecommunications services" reference in (c)(1).[2335] The legislative history of (h)(1)(B) supports this reading:

> New section (h)(1)(B) requires that any telecommunications carrier shall, upon, a bona fide request, provide services . . . included in the definition of universal service under new subsection (c)(3) . . . at rates that are less than the amounts charged for similar services to other parties, and are necessary to assure affordable access to and use of *such telecommunications services*.[2336]

Not finding sufficient reference to telecommunications service in the legislative history, the majority states that, if Congress had intended to limit the scope of 254(c)(3) -- and thus (h)(1) -- to telecommunications services, it would have used the phrase "additional telecommunications services" in 254(c)(3). This reasoning, however, simply does not withstand scrutiny. There are a number of instances where the word "services" is used in Section 254 without the modifier "telecommunications," yet the context clearly points to

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[2335] 47 U.S.C. § 254(c)(1) ("Universal service is an evolving level of *telecommunications services*...") (emphasis added).

[2336] H.R. Conf. Rep. No. 458, 104th Cong., 2d Sess. 133 (1996) (emphasis added.)

telecommunications services.[2337] In addition, contrary to basic principles of statutory interpretation, the majority's legal theory would render (h)(2) mere surplusage.[2338] Finally, I believe that using (h)(1) and (c)(3) to reach non-telecommunications services, like Internet access, is a stretch and that should not be read to support facilities and equipment like internal connections.

In contrast, Section 254(h)(2) clearly encompasses Internet access because it specifically requires the Commission to enhance access to "advanced telecommunications *and information services*." The legislative history of (h)(2) makes it clear that this includes Internet access:

> For example, the Commission could determine that telecommunications and information services that constitute universal service for classrooms and libraries shall include dedicated data links and the ability to obtain access to educational materials, research information, statistics, information on Government services, reports developed by Federal, State and local governments and *information services which can be carried over the Internet*."[2339]

[2337] For example, subsection (c)(2) provides that the Joint Board may recommend "modifications in the definitions of services that are supported by universal service support mechanisms." Under the majority's reading, this would allow the Commission to designate non-telecommunications services for support.

[2338] If the word "services" in (h)(1) includes internet access and internal connections, then (h)(2)'s requirement that the Commission enhance access to advanced telecommunications and information services for schools and libraries would be meaningless. It is a recognized principle that "(a) statute should be construed so that effect is given to all its provisions, so that no part will be inoperative or superfluous, void or insignificant." 2A Sutherland Statutory Construction § 46.06, at 63 (4th ed. C Sands 1973).

[2339] H.R. Conf. Rep. No. 458, 104th Cong., 2d Sess. at 131 (1996).

Section 254 (h)(2) can also be read to permit funding for internal connections since it does not just require that such services be provided, but rather that "access" to such services shall be enhanced. I agree with the majority that one way to enhance such access is to provide funding for the inside wiring used in connnection with those services.

I also cannot support the legal rationale set forth in today's decision because it could eventually undermine the principle of competitive neutrality recommended by the Joint Board and adopted by the Commission. I also believe it may also be contrary to Congress' clear directive in Section 254(h)(2) that the Commission shall establish competitively neutral rules. In my view, it is not competitively neutral in today's converging telecommunications marketplace to have two sets of rules according to some regulatory scheme of identification. In order to be true to the directive of Congress, I believe that it would be better to proffer the same rationale and legal support for the provision of all telecommunications services -- regardless of the provider's identity. To do otherwise is to risk potentially disparate treatment of such providers in this or other forums.

VII. Rural Health Care Providers

I support today's decision to begin the rural health care program. The Commission did not have an extensive record before it on the telemedicine needs of rural areas. Thus, I believe that the $400 million annual fiscal cap represents an appropriate measured approach to start a program that will provide telemedicine out in rural America, as Congress intended.

VIII. Consortia for Public Institutional Telecommunications Users

I also express mild concern about our decision to allow consortia of eligible schools, libraries, and rural health care providers to aggregate purchasing and maintenance agreements with ineligible telecommunications users, including private for-profit entities. I

agree with my colleagues that there may be many benefits in allowing consortia in some circumstances, in that it may help eligible providers in rural areas obtain higher capacity lines that they otherwise may not obtain. While it is clear that noneligible entities will not receive any universal service support pursuant to Section 254, I remain concerned that allowing such consortia may lead to potential abuse of the Section 254(h) programs, and further complicate the duties of the Administrator.

IX. Insular and Unserved Areas

In keeping with Congress' mandate to make rates affordable, I support the program we adopt today to expand our existing Lifeline and Link-up programs and make them available in all parts of the nation. I am especially pleased that we are making these low income programs available in insular areas, such as American Samoa and CNMI.

Throughout the Joint Board process, I have been concerned about the low telephone subscribership rates in insular areas. While highly advanced telecommunications services rapidly sprout throughout many parts of our nation, subscribership to basic telephone service in places such as Puerto Rico still remains far below the national average. If the Commission is to give true meaning to the words "universal service," I believe it must take a more pro-active role in helping to bring essential telephone service to insular areas at subscribership rates comparable to the rest of the nation.

We take that first step today by committing to release a Public Notice that hopefully will arm the FCC with more data on the affordability of service in insular areas. I strongly encourage local governments in insular areas to help us to collect this information, so that we can take the necessary steps to ensure that consumers in these areas have the opportunity to receive affordable telephone service, and universal service support for their schools, libraries and rural health care providers.

I am also pleased that we have asked our state colleagues for further data on unserved areas in their jurisdictions. I am very concerned about these unserved areas, and hope that we can work jointly to find a solution to make affordable telephone service truly universal.

Finally, I thank my colleagues and their staffs who served on the Federal-State Universal Service Joint Board for their tireless and dedicated devotion to the many complex issues with which we have struggled over the last year. It is without question a better decision due to the participation of our state colleagues and the consumer representative. We should be proud of our achievement.

May 7, 1997

Separate Statement
of
Commissioner Susan Ness

Re: Universal Service; Access Reform; Price Cap Review

Today we reach another milestone in our efforts to secure for consumers the myriad benefits made possible by the Telecommunications Act of 1996. We are steadfastly fulfilling the tasks assigned to us by Congress in a manner that will prove the wisdom -- and realize the vision -- of this landmark legislation.

Our pursuit has many facets. We must eliminate impediments to competition, ensure fair rules of engagement for all market participants, safeguard the interests of residential consumers, especially those with limited incomes and those in high cost areas, promote economic efficiency, and lower prices to consumers. Today's orders represent substantial progress on all these fronts.

Much of what we are doing is driven by law and by economics. But the results of our decisions have a human face:

> Will a poor family in Appalachia be able to summon the police or fire department in an emergency?
>
> Will a critically ill patient in a remote region of Montana have her tumor quickly and accurately diagnosed?
>
> Will a curious high-school freshman have an opportunity to view Thomas Jefferson's valedictory letter, in his own aged but still powerful hand?

Will an elderly widow be less hesitant to break her loneliness with longer and more frequent calls to her great-grandchildren?

Today brings us closer to a day when these questions can all be answered "yes."

Fifteen months after enactment of the Telecommunications Act, the transition to a new industry paradigm remains far from complete. The road is not straight, or smooth, or free from peril. But a steady course -- and a shared determination -- can bring us to the desired destination.

We still have far to travel to resolve issues of support for high-cost areas. I believe we have a sound plan and a clear timetable for implementation, but we still face two main obstacles. The proxy models, already impressive feats of cost engineering, still require further refinement before they can reliably be used to target federal cost support. And a new consensus must be achieved before support essential to maintain affordable telephone service in high-cost states can be drawn from states with lesser need, as I believe the Congress of the United States clearly intended. In the meantime, we can make only incremental changes in the implicit subsidies that currently support the high-cost services provided by large price cap telephone companies.

For the smaller rural companies, change will come even more gradually. This is consistent with Congress's expectation that competition would arrive more quickly in the cities and the suburbs. In the interim, we recognize that rural economies must not face unnecessary dislocations.

The need to avoid harmful dislocations, while also encouraging beneficial change, is crucial to much of what we are doing in the access reform and price cap orders. We are implementing many changes that will help to ensure an orderly transition from monopoly to fair and efficient competition.

In particular, the recovery of more costs through flat-rated charges instead of

usage-sensitive charges will reduce the exposure of incumbent telephone companies to "cherry-picking" by new entrants, even as they also expand the range of customers likely to be offered competitive alternatives. Completion of the conversion to a three-part rate structure for tandem-switched transport will eliminate a historical artifact, but allow time for affected carriers to adjust. The new X-factor more accurately reflects the productivity gains that can reasonably be expected from price cap carriers, while avoiding radical reduction of telephone company access revenues and proposals that would have unfairly penalized those companies that have most assiduously conducted themselves in accordance with the incentives we deliberately created.

We prefer to rely on marketplace forces rather than regulation to drive investment decisions and price reductions. Some will fault us for not acting more aggressively; others will complain that we are too heavy-handed. My own view is that each decision, and all of the many issues in these orders, has been approached with balance and sensitivity, fairness and principle.

Not everyone will be satisfied. But no one can say that we have not read the law, considered economic theories and business realities, consulted our consciences, and sought to achieve as much fairness as is humanly possible.

I readily confess that I cannot muster the same passion for restructuring the arcane and impenetrable Transport Interconnection Charge as for devising a completely new regime to provide discounts for schools and libraries to access telecommunications and information services. Though I am fully committed to full realization of all of the universal service provisions, the Snowe-Rockefeller-Exon-Kerry provisions reflect an especially bold vision. For our part, we have used our creativity to harness the magic of competition to reduce the costs of the support program, created incentives to ensure only prudent use of supported services, targeted discounts to minimize the danger of a widening gap between information haves and have-nots, and sought at every turn to maintain our commitment to competitive neutrality.

Even more important, we have sought to leave crucial decisions in the hands of educators and librarians, scattered throughout the country, rather than in the hands of Washington-based administrators. And, best of all, we have arranged a smooth take-off that will avoid creating unsustainable financial burdens on carriers and consumers, allowing competition and growth and declining prices -- rather than rate increases -- to supply the necessary funds.

In this area, as in the others addressed by today's orders, we have applied all our energy, and all our skill, to make the best decisions, based on our current knowledge and the law. A continuing commitment to constructive dialogue by all interested parties -- telephone companies, long distance companies, wireless companies, small businesses, large businesses, residential consumers, state regulators, and members of Congress -- is critical to continued progress. At the end of the day, fairness to all parties and demonstrable benefits to consumers are the standards by which we will all be judged.

APPENDIX A
PARTIES FILING INITIAL COMMENTS

Commenter	Abbreviation
Association of American Medical Colleges	AAMC
Ad Hoc Telecommunications Users Committee	Ad Hoc
Aerial Communications, Inc.	Aerial
American Federation of Teachers	AFT
American Hospital Association	AHA
AirTouch Communications, Inc.	AirTouch
AirTouch Communications, Inc. -- Errata	AirTouch
American Library Association	ALA
Alabama Department of Public Health, Public Health Area III	
Alabama Department of Public Health	
Alabama Public Service Commission	Alabama PSC
Alaska Public Utilities Commission	Alaska PUC
Alliance for Public Technology	
Alliance for Community Media	
Alliance for Distance Education in California	Alliance for Distance Education
ALLTEL Telephone Services Corporation	ALLTEL
Alpena General Hospital	
Association for Local Telecommunications Services	ALTS
American Telemedicine Association	American Telemedicine
Ameritech	
AMSC Subsidiary Corp.	AMSC
America Online	AOL

American Personal Communications	APC
American Public Health Association	APHA
American Public Power Association	APPA
Apple Computer, Inc.	Apple
Association of America's Public Television Stations and Public Broadcasting Service	APTS/PBS
Arch Communications Group, Inc.	Arch
Archdiocese of New York	
US Public Policy Office for the Association for Computing Machinery	Ass'n for Computing
Association of State and Territorial Health Officials	ASTHO
Alaska Telephone Association -- Ex-Parte	ATA
AT&T Corp.	AT&T
Bell Atlantic -NYNEX Mobile	BANM
Association of the Bar of New York Administrative Law Committee	Bar of New York
Bell Atlantic	
BellSouth Corporation and Telecommunications, Inc.	BellSouth
Benton Foundation & the Center for Strategic Communications	Benton
Broadband PCS Alliance of PCIA	Broadband PCS Alliance
Brooklyn Public Library	
Business Software Alliance	
California Department of Consumer Affairs	
State of California and the California Public Utilities Commission	California PUC
California Small Business Association	California SBA
Cathey, Hutton and Associates	Cathey, Hutton
US Catholic Conference	Catholic Conference
National Coalition for the Homeless,	
Washington Legal Clinic for the Homeless,	

American Women's Roundtable,
Center for Media Education,
Consumer Action,
Fifth Street Connection,
Heartland Alliance for Human Needs and Human Rights,
Interstate Migrant Educators,
Marcia Zashin,
Education Consultant to Cleveland Public Schools and Project Act,
Migrant Legal Action Program,

Council for Education Development and Research	CEDR
Celpage, Inc	Celpage
Cincinnati Bell Telephone Co.	Cincinnati Bell
Citizens Utilities Company	Citizens Utilities
Commonwealth of the Northern Mariana Islands	CNMI
Colorado Library, Education & Healthcare Telecommunications Coalition	Colorado LEHTC
Commercial Internet Exchange Association	Commercial Internet Exchange
American Association of Community Colleges	Community Colleges
Competitive Telecommunications Association	CompTel
Comsat Corporation	Comsat
Cox Communications, Inc.	Cox
Competition Policy Institute	CPI
Citizens for a Sound Economy Foundation	CSE Foundation
Cellular Telecommunications Industry Association	CTIA
Cylink Corporation	Cylink
Office of the People's Counsel for the District of Columbia	DC OPC
Public Service Commission of the District of Columbia	DC PSC
Delaware Public Service Commission	Delaware PSC
Dickinson Public Schools	
DIRECTV, Inc. and Hughes Communications Galaxy, Inc.	DIRECTV

Eastern Montana Telemedicine Network	
Edgemont Neighborhood Coalition	Edgemont
Educations and Library Networks Coalition	EDLINC
American Association of Educational Service Agencies	Educational Service Agencies
Electronic Communications for Rural Health Depts.	
Evans Telephone Co.	Evans Tel. Co.
Humboldt Telephone Co.,	
Kerman Telephone Co.,	
Oregon-Idaho Utilities Inc.,	
Pinnacles Telephone Co.,	
The Ponderosa Telephone Co.,	
The Siskiyou Telephone Co.,	
The Volcano Telephone Co.,	
Excel Telecommunications, Inc.	EXCEL
Florida Department of Management Services	
Florida Public Service Commission	Florida PSC
Florida Public Service Commission -- Ex-Parte	Florida PSC
Ford County Health Department	
Fred Williamson & Associates, Inc.	Fred Williamson
Frontier Telemedicine	
Frontier Corp.	Frontier
General Communications, Inc.	GCI
GE American Communications, Inc.	GE Americom
Consumers' Utility Counsel Division, Georgia Governors' Office	Georgia Consumer's Counsel
Georgia Department of Administrative Services	
Governor of Guam	
Grant County Health Department	
Gray County Health Department	
Council of the Great City Schools	Great City Schools

General Services Administration	GSA
GTE	
Guam Telephone Authority	Guam Tel. Authority
GVNW, Inc./Management	GVNW
Harris, Skrivan Associates	Harris
Harvey County Health Department	
U.S. Department of Health and Human Services	HHS
High Plains Rural Health Network	High Plains RHN
ICORE, Inc.	ICORE
Illinois State Board of Education	Illinois Board of Education
Illinois Commerce Commission	Illinois CC
Illinois Department of Public Health	Illinois DPH
Illinois State Library	
Integrated Media Conferencing Network	
Interactive Services Association	Interactive Services Ass'n
Iowa Utilities Board	
iSCAN, L.P.	iSCAN
Information Technology Association of America	ITAA
ITCs, Inc.	ITC
Information Technology Industry Council	ITI
IXC Communications, Inc.	IXC Communications
John Staurulakis, Inc.	John Staurulakis
Juno Online Services, L.P.	Juno Online
Kansas Corporation Commission	Kansas CC
Kansas Hospital Association	
Kentucky Public Service Commission	Kentucky PSC
Keystone Communications Corporation	Keystone Communications
Kit Carson County Memorial Hospital	
LCI International Telecom Corp.	LCI
Lower Colorado River Authority	LCRA
Livingston County Public Health Department	

Marquette County Health Department	
Maryland Public Service Commission	Maryland PSC
Massachusetts Department of Education	Massachusetts DOE
Massachusetts Board of Library Commissioners	MassLibrary
Maury Regional Hospital Teleradiology and Hospital Software Integration	Maury Regional Hospital
MCI	
Jennie M. Melham Memorial Medical Center, Inc.	Melham Medical Center
Metricom, Inc.	Metricom
MFS Communications Company, Inc.	MFS
Mid-Nebraska Telemedicine Network	
Minnesota Independent Coalition	Minnesota Coalition
Mississippi State Department of Health	Mississippi Dept. of Health
Mississippi Council for Education Technnology & Mississippi Library Commission	Mississippi
Missouri Public Service Commission	Missouri PSC
Mitchell County Health Dept.	
Mountaineer Doctor TeleVision	Mountaineer Doctor TV
National Association of County & City Health Officials	NACCHO
National Association of the Deaf	NAD
National Association of State Telecom. Directors	NASTD
National Association of State Utility Consumer Advocates	NASUCA
National Black Caucus of State Legislators	Nat'l Black Caucus
National Urban Coalition	
US National Commission on Libraries & Information Science	NCLIS
National Cable Television Association	NCTA
Nebraska Association of Hospitals & Health Systems	Nebraska Hospitals
Nebraska Telemedicine	
National Emergency Number Association	NENA
NetAction	

Utility Consumer Action Network	
Community Technology Centers' Network	
CHALK	
Netscape Communications Corporation	Netscape
New Jersey Division of Ratepayer Advocate	New Jersey Advocate
New York State Department of Education	New York DOE
New York State Department of Public Service	New York DPS
New York Public Library	
Nextel Communications, Inc.	Nextel
Northern Telecommunications	NorTel
North Dakota Department of Health	North Dakota DOH
North Dakota Public Service Commission	North Dakota PSC
North Dakota State Library	
North Dakota Telehealth Service Providers	
Northern Tier	
Norton County Health Department	
NRPT Communications	NRPT
National Telecommunications and Information Administration	NTIA
American College of Nurse Practitioners	Nurse Practitioners
Nynex	NYNEX
Ohio Department of Education	Ohio DOE
Public Utilities Commission of Ohio	Ohio PUC
Oracle Corporation	Oracle
Oregon Public Education Network	
Oregon Public Utility Commission	Oregon PUC
Orion Atlantic	
Osage County Health Department	
Osborne County Health Department	
Owen J. Roberts School District	
PACE Telecommunications Consortium	PACE

Pacific Telesis Group	PacTel
PageMart, Inc.	PageMart
Paging Network, Inc.	PageNet
PanAmSat Corporation	PanAmSat
Panhandle Health District I	
Personal Communications Industry Association	PCIA
Personal Communications Industry Association -- Errata	PCIA
Pennsylvania Library Association	Pennsylvania Library Ass'n
People for the American Way	People For
Media Access Project,	
Alliance for Communitions Democracy,	
Alliance for Community Media,	
Benton Foundation,	
Center for Media Education,	
League of United Latin American Systems,	
Minority Media and Telecommunications Council,	
National Association for the Advancement of Colored People,	
National Council of LaRaza,	
National Urban League,	
Rainbow Coalition	
Phillips County Health Department	
Plains Health Telemedicine Network	Plains Health Telemedicine
Paging and Narrowband PCS Alliance of the PCIA	PNPA
Pottawatomie County Health Department	
Public Advocates, Inc.	Public Advocates
Puerto Rico Telephone Company	Puerto Rico Tel. Co.
Rural Emergency Medical Education Consortium	REMEC
Richard Roth	
Robert L. Lock, Jr.	
Roseville Telephone Company	Roseville Tel. Co.
RT Communications, Inc.	RT

Rural Telephone Coalition	RTC
Rural Alliance	
National Rural Electric Cooperative Association	Rural Electric Coop.
Rural Wisconsin Health Cooperative	
Rural Utilities Service	RUS
Russell County Health Department	
Chief Counsel for Advocacy of the US Small Business Administration	SBA
Chief Counsel for Advocacy of the US Small Business Administration -- ERRATA	SBA
SBC Communications, Inc.	SBC
Seattle Department of Administrative Services	Seattle
Sheridan County Public Health Department	Sheridan County PHD
Silver Star Telephone Company	Silver Star Tel. Co.
Southern New England Telephone Co.	SNET
South Carolina Department of Education and Budget & Control Board	South Carolina
Southern Adirondak Library System	
Southern Illinois Healthcare	
Sprint Spectrum L.P.	Sprint PCS
Sprint Corporation	Sprint
Saint Alexius Medical Center	St. Alexius
Stanton County Health Department	
TCA, Inc.-Telecommunications Consultants	TCA
Tele-Communications, Inc.	TCI
TDS Telecommunications and Century Telephone	TDS Telecom
TDS Telecommunications and Century Telephone -- Errata	TDS Telecom
Telco Communications Group, Inc.	Telco
Teleport Communications Group, Inc.	Teleport
Public Utility Commission of Texas	Texas PUC
Time Warner Communications Holdings, Inc.	Time Warner

Telecommunications Resellers Association	TRA
Tularosa Basin Telephone	Tularosa Basin Tel.
Utility Reform Network	TURN
U S West, Inc.	U S WEST
United Cerebral Palsy Association	United Cerebral Palsy Ass'n
Office of Communication of the United Church of Christ	United Church of Christ
United Health Services	
United Utilities, Inc.	United Utilities
Universal Service Alliance	
University of Cincinnati Medical Center Academic Information Technology and Libraries	Univ. of Cin. Medical Center
University of Kansas School of Nursing	
University of Minnesota	Univ. of Minnesota
University of Nebraska Medical Center	Univ. of Nebraska Med. Ctr.
University of Nevada School of Medicine	
National Urban League, Inc.	Urban League
United States Telephone Association	USTA
Utah Public Service Commission	Utah PSC
UTC, the Telecommunications Association	UTC
Vanguard Cellular Systems, Inc.	Vanguard
Vermont Public Service Board	Vermont PSB
Virginia's Rural Telephone Co's	Virginia's Rural
Washington State Enhanced 911 Program	Washington 911
Washington State Library	Washington Library
Washington State Rural Development Council	Washington RDC
Washington State Superintendant of Public Instruction	Washington SPI
Washington Utilities and Transportation Commission	Washington UTC
Waubonsee Community College	
West Virginia Consumer Advocate	
Western Alliance	
WinStar Communications, Inc.	WinStar

WorldCom, Inc.	WorldCom
Wyoming Medical Center	Wyoming Telemedicine Proj.
Wyoming Public Service Commission	WPSC

APPENDIX B
PARTIES FILING REPLY COMMENTS

Commenter	Abbreviation
Acadia-St. Landry Hospital	
America's Carriers Telecommunications Ass'n	ACTA
Ad Hoc Telecommunications Users Committee	Ad Hoc
American Federation of Teachers	AFT
American Hospital Ass'n	AHA
AirTouch Communications, Inc.	AirTouch
American Library Association	ALA
The State of Alaska	Alaska
Alaska Telemedicine Project	
Aliant Communications Co.	Aliant
ALLTEL Telephone Services Corporation	ALLTEL
Association for Local Telecommunications Services	ALTS
American Medical Informatics Association	
Ameritech	
America Online	AOL
American Personal Communications	APC
American Public Power Ass'n	APPA
Apple Computer, Inc.	Apple
Arch Communications Group, Inc.	Arch
Arizona Telemedicine Program Link	Arizona Telemedicine
Arkadelphia Baptist Medical Center	
Arlington Municipal Hospital TeleMedicine	Arlington Municipal Hospital
AT&T Corp.	AT&T

Atlanta Board of Education	
Bell Atlantic and NYNEX	BANX
Bassett Healthcare Telemedicine Network	Bassett Healthcare
BellSouth Corporation and Telecommunications, Inc.	BellSouth
Benton Foundation & the Center for Strategic Communications	Benton
Business Software Alliance	
California Department of Consumer Affairs	
California and the Public Utilities Commission	California PUC
California Small Business Association	California SBA
Celpage, Inc.	Celpage
Centennial Cellular Corp.	Centennial
Charles S. Robb	
City of Chicago	Chicago
Citizens Utilities Company	Citizens Utilities
Resident Representative from CNMI to US	CNMI Representative
Northern Mariana Islands	CNMI
Colorado Library, Education & Healthcare Telecommunications Coalition	Colorado LEHTC
Colorado Public Utilities Commission	Colorado PUC
Colorado Telehealth	Colorado Telehealth
Commercial Internet Exchange Association	Commercial Internet Exchange
Commercial Internet Exchange Association -- ERRATA	Commercial Internet Exchange
American Association of Community Colleges	Community Colleges
Conejos County Hospital	
Consumer Action Network	Consumer Action
Cox Communications, Inc.	Cox
Competition Policy Institute	CPI
Cellular Telecommunications Industry Association	CTIA
Communications Workers of America	CWA
Dakota Telemedicine Systems	

Decatur County Hospital Healthnet Works	Decatur County Hospital
Eastern Montana TeleMedicine Network	Eastern Montana
TeleMedicine	
Educations and Library Networks Coalition	EDLINC
Evans Telephone Co.	Evans Tel. Co.
Humboldt Telephone Co.,	
Kerman telephone Co.,	
Oregon-Idaho Utilities, Inc.,	
Pinnacles Telephone Co.,	
The Ponderosa Telephone Co.,	
Siskiyou Telephone Co.,	
The Volcano Telephone Co.	
Florida Public Service Commission	Florida PSC
Fort Frye Local School District	
General Communications, Inc.	GCI
GE American Communications, Inc.	GE Americom
Georgia Public Service Commission	Georgia PSC
General Instrument Corporation	GI
Council of the Great City Schools	Great City Schools
General Services Administration	GSA
GTE	GTE
High Plains Rural Health Network	High Plains RHN
U.S. Department of the Interior	Interior
ITCs, Inc. -- ERRATA	ITC
ITCs, Inc.	ITC
IXC Communications, Inc.	IXC Communications
University of Kentucky College of Medicine	Kentucky TeleCare
KMC Telecom, Inc.	KMC
KU Medical Center	KU Medical Center
La Crosse Lutheran Hospital	
LBJ Tropical Medical Center	

Low Country General Hospital	
Lufkin-Conroe Telephone Exchange, Inc.	Lufkin-Conroe
The State of Maine Public Utilities Commission	Maine PUC
The State of Montana Public Service Commission,	
The State of Nebraska Public Service Commission,	
The State of New Hampshire Public Utilities Commission,	
The State of New Mexico State Corporation Commission,	
The State of Utah Publice Service Commission,	
The State of Vermont Department of Public Service and Public Service Board,	
Public Service Commission of West Virginia	
Upper Peninsula Telemedicine Network	Marquette General Hospital
Maryland PSC	
MCI	MCI
MFS Communications Company, Inc.	MFS
Building an Integrated Patient Information System	Mid-Michigan Medical Center
Montana REACH	
Motorola, Inc.	Motorola
National Cable Television Ass'n	NCTA
Netscape Communications Corporation	Netscape
New York State Department of Public Service	New York DPS
Friends of the National Library of Medicine	NLM
North Idaho Community Education and Health Information Network	North Idaho CEHIN
North Mississippi Health Services	
North Tonawanda City School District Board of Education	North Tonawanda School Dist.
National Telecommunications and Information Administration	NTIA
Public Utilities Commission of Ohio	Ohio PUC
Orion Atlantic	
Pacific Telesis Group	PacTel
PageMart, Inc.	PageMart
Paging Network, Inc.	PageNet

Personal Communications Industry Association	PCIA
Puerto Rico Telephone Company	Puerto Rico Tel. Co.
Rock Hill Telephone Co.	Rock Hill Tel. Co.
Rural Telephone Coalition	RTC
National Rural Telecom Association	
National Telephone Cooperative Association	
Organization for the Promotion and Advancement of Small Telecommuniations Companies	
Rural Alabama Health Alliance Distance Learning/ Medical Link Grant	Rural Alabama Health Alliance
National Rural Health Association	Rural Health Ass'n
Rural Utilities Service	RUS
Acadia-St. Landry Hospital,	
Arizona Telemedicine Program Link,	Arizona Telemedicine
Arkadelphia Baptist Medical Center,	
Arlington Municipal Hospital TeleMedicine,	Arlington Municipal Hospital
Bassett Healthcare Telemedicine Network,	Bassett Healthcare
Colorado Telehealth,	
Conejos County Hospital,	
Dakota Telemedicine Systems,	
Decatur County Hospital Healthnet Works,	Decatur County Hospital
Eastern Montana TeleMedicine Network,	Eastern Montana Telemedicine
High Plains Rural Health Network,	
KU Medical Center,	
University of Kentucky College of Medicine,	Kentucky Telecare
LBJ Tropical Medical Center,	
La Crosse Lutheran Hospital,	
Low Country General Hospital,	
Upper Peninsula Telemedicine Network,	Marquette General Hospital
Building an Integrated Patient Information System,	Mid-Michigan Medical Center

Montana REACH,	
National Telecommunications and Information Administration,	NTIA
North Idaho Community Education & Health Network,	North Idaho CEHIN
North Mississippi Health Services,	
Rural Alabama Health Alliance Distance Learning,	Rural Alabama HealthAlliance
National Rural Health Association,	Rural Health Ass'n
Northeast Louisiana Health Network Teleradiology Link,	St. Francis Medical Center
Twin Lakes Regional Medical Center,	
University of Arkansas Rural MedLink,	University of Arkansas
Rural Pennsylvania Telemedicine Network,	Univ. Pittsburgh Med Ctr
Telemedicine for Rural South Carolina	Univ. of SC School of Med
U.S. Small Business Administration	SBA
SBC Communications, Inc.	SBC
Scott & White	
Small Cable Business Association (Reg. Flex)	Small Cable II
Small Cable Business Association	Small Cable
Sprint Spectrum L.P.	Sprint PCS
Sprint Corporation	Sprint
Northeast Louisiana Health Network Teleradiology Link	St. Francis Medical Center
TDS Telecommunications and Century Telephone	TDS Telecom
Telco Communications Group, Inc.	Telco
Teleport Communications Group, Inc.	Teleport
Time Warner Communications Holdings, Inc.	Time Warner
Telecommunications Resellers Association	TRA
Twin Lakes Regional Medical Center	
U S West, Inc.	U S WEST
Universal Service Alliance	Univ. Service Alliance
University of Arkansas Rural MedLink	Univ. of Arkansas
University of Kentucky Center for Rural Health	
Rural Pennsylvania Telemedicine Network Center	Univ. of Pittsburgh Medical

Telemedicine for Rural South Carolina	Univ. of S. Carolina School of Med.
United States Telephone Ass'n	USTA
UTC, the Telecommunications Ass'n	UTC
Vanderbilt University	Vanderbilt
Vanguard Cellular Systems, Inc.	Vanguard
WorldCom, Inc.	WorldCom

APPENDIX C
PARTIES FILING COST MODEL COMMENTS

Commenter	Abbreviation
Communications Workers of America	CWA
GTE Service Corp.	GTE

APPENDIX D
PARTIES FILING COMMENTS ON COST MODEL WORKSHOPS

Commenter	Abbreviation
AirTouch Communications, Inc.	AirTouch
Association for Local Telecommunications Services	ALTS
New Jersey Division of Ratepayer Advocate	New Jersey Advocate
Pacific Bell	PacBell
Pacific Telecom, Inc.	
Rural Telephone Coalition and United States Telephone Coaltion	RTC and USTA
Sprint Corporation	Sprint
WorldCom, Inc.	WorldCom

APPENDIX E
PARTIES FILING COST MODELS

Commenter	Abbreviation
Benchmark Cost Proxy Model	BCPM
Hatfield Cost Proxy Model	Hatfield
Telecom Economic Cost Model	TECM
New Jersey Division of Ratepayer Advocate	New Jersey Advocate

APPENDIX F
PARTIES CITED IN ORDER
THAT FILED ONLY IN RESPONSE TO THE NPRM
IN CC DOCKET NO. 96-45

Commenter	Abbreviation
360 Degree Communications	360
AARP, CFA, Consumer Union	
Allied Associated Partners, LP/GELD Information Systems	
Access to Communications for Education Coalition	ACE
Association Communications & Research Services, Inc.	ACRS
American Foundation for the Blind	AFB
Alaska Area Native Health Services	Alaska Health
Alaska Library Association	Alaska Library
Alabama-Mississppi Telephone Association	AMTA
Alaska Telephone Association	ATA
America's Carriers Telecommunications Association	ACTA
State of Alaska	Alaska
Arctic Clope Tele Association (VCR TAPE)	Arctic
Ardmore Telephone Company	Ardmore
Arizona Health Services Center	Arizona Health
Bledsoe Telephone Company	Bledsoe
Blountsville Telephone Company	Blountsville
Brite Voice Systems, Inc.	Brite
Benjamin N. Cardozo School of Law/Yeshiva University	Cardoza
Churchill County Telephone and Telegraph	CCTT

Continental Cablevision, Inc.	CCV
Cheyenne River Sioux Telephone Authority & Golden W.	Chey
Center for Civil Networking, Inc.	
Colorado Independent Telephone Association, Inc.	CITA
Compuserve, Inc.	
Consumer Project on Technology	CPT
Council On Competitiveness	
Distance Delivery Consortium	DDC
Early Childhood Development Center Legislative Coalition	Early Childhood
Edgemont Neighborhood Coalition	Edgemont Neighborhood
Farmers Telephone Cooperative	Farmers
Federation of American Research Networks	
Florida Cable Telecommunications Association	FCTA
Fort Mohave Telecommunications Association	Ft. Mohave
Frederick Warinner, LLC	Federick & Warinner
General Communications, Inc.	GCI
Governor of Guam	Guam
Guam Public Utility Commission	
Robert A. Hart IV	Hart
Hispanic Information & Telecommunications Network, Inc.	HITN
Hopper Telecommunications Company	Hopper
International Communications Association	ICA
Independent Cable & Telecomunications Association	ICTA
Indiana Utility Regulatory Commission	IURC
Information Industry Association	IIA
Instructional Telecommunications Council	ITC
Iowa Communications Network	

Iowa Telephone Association	
Kinko's, Inc.	
Learning & Info Networks for Community Telecomputing Coalition	LINCT
Library of Michigan	
Lincoln Trail Libraries System	
Matanuska Telephone Association	Matanuska Tel. Ass'n
Mendocino Unified School District	Mendocino School District
Merit Network	Merit
Michigan Consumer Federation,	Michigan Consumer Federation
Oregon Citizens Utilities Board, Massachusetts Consumer Association, Chicago Media Watch, Environmental Media Association, Women's Institute for Freedom of the Press, Center for Media Literacy, Greater Washington Area Chapter of the Cultural Environment Movement, Columbus Center for Media Education Miles River Press	
Michigan Library Association	Michigan Library Ass'n
Michigan Public Service Commission	Michigan PSC
Minnesota Independent Coalition	Minnesota Indep Coalition
Minnesota Telephone Association	Minn. Tel. Assn.
Missouri State Library	Missouri Library
MobileMedia Communications, Inc.	MobileMedia
Mon-Cre Telephone Cooperative	Mon-Cre
Montana Independent Telecommunications Systems	Montana Indep. Telecom.
Montana Public Service Commission	Montana PSC
Montana Telephone Association	Montana Tel. Ass'n
Southwest Montana Telepsychiatry Network	Montana Telepsychiatry

National Association of Development Organizations	
National Association of Regulatory Utility Commissioners	NARUC
National Exchange Carrier Association	NECA
National Retail Federation	Nat'l Retail Fed.
National School Boards Association American Library Association	
(Comments)	NSBA I
(Flexibility Analysis)	NSBA II
National Telecommunications and Information Administration U.S. Dept. of Commerce	NTIA
National Urban League-Boston College	National Urban League-BC
Navajo Nation	Navajo Nation
Nebraska Rural Development Commission	Nebraska RDC
New Hope Telephone Cooperative	New Hope Tel.
New Jersey Board of Public Utilities	New Jersey BPU
New Mexico Attorney General	New Mexico AG
New York Board of Regents	New York Regents
New York State Consumer Protection Board	New York CPB
New York State Department of Public Service	New York DPS
North Dakota State Health Officer	North Dakota Health
North of Boston Library Exchange, Inc.	
OMB Watch	
Oakland Unified School District	Oakland School District
Office of Insular Affairs	OIA
Office of Rural Health Policy of HRSA/HHS	ORHP/HHS
Office of the Ohio Consumers' Counsel	Ohio Consumers' Counsel
Oklahoma Corporation Commission	Oklahoma CC
Oklahoma Dept. of Libraries	Oklahoma Libraries
Oregon Independent Telephone Association & Washington Independent Telephone Association	OTIA-WITA
Pacific Telecom, Inc.	

Pacific Telesis Group	PacTel
Park Region Mutual Telephone Co.	Park Region Tel.
Pennsylvania Public Utility Commission	Pennsylvania PUC
Pennsylvania Rural Development Council	Pennsylvania RDC
Bonnie Price	Price
Public Utility Law Project of New York, Inc.	PULP
Ragland Telephone Company	Ragland Tel. Co.
Reed, Smith, Shaw & McClay	Reed Smith
Rhode Island Public Utilities Commission	Rhode Isalnd PUC
Rock Port Telephone Co.	Rock Port Tel.
National Rural Electric Cooperative Association	Rural Electric Coop.
Richard Riley, Secretary of Education	Secretary of Education
Rural Iowa Independent Telephone Association	
Rural Health Network	
Rural Telephone Finance Coop.	
STAR Program	STAR
Sailor (MD Library Proj.)	Sailor
South Carolina Public Service Commission	South Carolina PSC
South Dakota Public Utilities Commission	South Dakota PUC
South New England Telephone Co.	SNET
Telecommunications Subcommittee Commission on the Future of Southwest Virginia	Southwest Virginia Future
State of South Dakota	South Dakota
Syracuse University School of Informational Studies	Syracuse University
Taconic Telephone Corporation	Taconic Tel. Corp.
Tele-Communications, Inc.	TCI
Telec Consulting Resources, Inc.	
Telecomm Access Association	Telecomm Access
Telecommunications Industry Association	TIA
American Federation of Teachers	Teachers
Public Utility Commission of Texas	Texas PUC

Texas Advisory Commission on State Emergency Communications	Texas Emergency
Texas Department of Information Resources	Texas DIR
Texas Office of Public Utility Counsel	Texas OPUC
Gary Tomlinson	Tomlinson
Telefonica Larga Distancia de Puerto Rico (TLD)	TLD
US Distance Learning Association	
US National Commission on Libraries & Information Science	U.S. Libraries
Virginia State Corporation Commission	Virginia CC
Warren Library Association	Warren Library
WavePhore, Inc.	WavePhore
Western Wireless Corporation	Western
Winnebago Cooperative Telephone Association	Winnebago Tel.

APPENDIX G
PARTIES FILING INITIAL COMMENTS
CPD FILE NO. 97-2

Commenter	Abbreviation
Aliant Communications	Aliant
Ameritech	
AT&T Corp./MCI (Joint Comments)	AT&T/MCI
Bell Atlantic Telephone Companies and NYNEX (Joint Comments)	
BellSouth Corporation, Bellsouth Telecommunications, Inc.	BellSouth
GTE Service Corporation	GTE
Pacific Bell	
Pacific Telecom, Inc.	
Rural Telephone Coalition	RTC
Rural Utilities Service	RUS
Southwestern Bell Telephone Company	
Sprint Corporation	Sprint
Strategic Policy Research	
Public Utilities Commission of Texas	Texas PUC
U S West, Inc.	U S WEST
United States Telephone Association	USTA
WorldCom, Inc.	WorldCom

APPENDIX H
PARTIES FILING REPLY COMMENTS
CPD FILE NO. 97-2

Commenter	Abbreviation
AT&T Corp./MCI (Joint Comments)	
Bell Atlantic - NYNEX Mobile	BANM
GTE Service Corporation	GTE
GVNW Inc./Management	GVNW
National Cable Television Association	NCTA
Rural Telephone Coalition	RTC
Rural Utilities Service	RUS
Southwestern Bell Telephone Company	
U S West, Inc.	U S WEST
United States Telephone Association	USTA

APPENDIX I - Final Rules

AMENDMENTS TO THE CODE OF FEDERAL REGULATIONS

1. Part 36 of Title 47 of the Code of Federal Regulations (CFR) is amended as follows:

PART 36 -- JURISDICTIONAL SEPARATIONS PROCEDURES; STANDARD PROCEDURES FOR SEPARATING TELECOMMUNICATIONS PROPERTY COSTS, REVENUES, EXPENSES, TAXES AND RESERVES FOR TELECOMMUNICATIONS COMPANIES.

2. The authority citation for Part 36 is revised to read as follows:

AUTHORITY: 47 USC Secs. 151, 154(i) and (j), 205, 221(c), 254, 403 and 410.

3. Section 36.125 is amended by deleting the content of paragraphs (c), (d), and (e), adding subparagraphs (3), (4) and (5) to paragraph (a), and revising paragraphs (b) and (f) in the following manner:

§ 36.125 Local Switching Equipment - Category 3.

(a) * * *

(3) Dial equipment minutes of use (DEM) is defined as the minutes of holding time of the originating and terminating local switching equipment. Holding time is defined in the Glossary.

(4) The interstate allocation factor is the percentage of local switching investment apportioned to the interstate jurisdiction.

(5) The interstate DEM factor is the ratio of the interstate DEM to the total DEM. A weighted interstate DEM factor is the product of multiplying a weighting factor, as defined in § 36.125(f), to the DEM factor. The state DEM factor is the ratio of the state DEM to the total DEM.

(b) Beginning January 1, 1993, Category 3 investment for study areas with 50,000 or more access lines is apportioned to the interstate jurisdiction on the basis of the interstate DEM factor. Category 3 investment for study areas with 50,000 or more access lines is apportioned to the state jurisdiction on the basis of the state DEM factor.

(c) Reserved.

(d) Reserved.

(e) Reserved.

(f) Beginning January 1, 1993 and ending December 31, 1997, for study areas with fewer than 50,000 access lines, Category 3 investment is apportioned to the interstate jurisdiction by the application of an interstate allocation factor that is the lesser of either .85 or the product of the interstate DEM factor specified in § 36.125(a)(5) multiplied by a weighting factor, as determined by the table below. Beginning January 1, 1998, for study areas with fewer than 50,000 access lines, Category 3 investment is apportioned to the interstate jurisdiction by the application of an interstate allocation factor that is the lesser of either .85 or the sum of the interstate DEM factor specified in § 36.125(a)(5) and the difference between the 1996 weighted interstate DEM factor and the 1996 interstate DEM factor. The Category 3 investment that is not assigned to the interstate jurisdiction pursuant to this paragraph is assigned to the state jurisdiction.

NUMBER OF ACCESS LINES IN SERVICE IN STUDY AREA	WEIGHTING FACTOR
0 - 10,000	3.0
10,001 - 20,000	2.5

20,001 - 50,000 ..... 2.0
50,001 - or above 1.0

* * * * *

4. Section 36.601 is amended by renumbering as paragraph (a) the unnumbered first paragraph and revising paragraphs (a) and (c) as follows:

§ 36.601 General.

(a) The term Universal Service Fund in this subpart F refers only to the support for loop-related costs included in § 36.621. The term Universal Service in Part 54 refers to the comprehensive discussion of the Commission's rules implementing section 254 of the Communications Act of 1934, as amended, 47 U.S.C. § 254, which addresses universal service support for rural, insular, and high cost areas, low-income consumers, schools and libraries, and health care providers. The expense adjustment calculated pursuant to this subpart F shall be added to interstate expenses and deducted from state expenses after expenses and taxes have been apportioned pursuant to subpart D of this part.

* * * * *

(c) The annual amount of the total nationwide loop cost expense adjustment calculated pursuant to this subpart F shall not exceed the amount of the total loop cost expense adjustment for the immediately preceding calendar year, increased by a rate equal to the rate of increase in the total number of working loops during the calendar year preceding the July 31st filing. The total loop cost expense adjustment shall consist of the loop cost expense adjustments, including amounts calculated pursuant to §§ 36.612(a) and 36.631. The rate of increase in total working loops shall be based upon the difference between the number of total working loops on December 31 of the calendar year preceding the July 31st filing and the number of total working loops on December 31 of the second calendar year preceding that filing, both calculated pursuant to § 36.611(a)(8). Beginning January 1, 1999, non-rural carriers shall no longer receive support pursuant to this Subpart F. Beginning

January 1, 1999, the total loop cost expense adjustment shall not exceed the total amount of the loop cost expense adjustment provided to rural carriers for the immediately preceding calendar year, adjusted to reflect the rate of change in the total number of working loops of rural carriers during the calendar year preceding the July filing. In addition, effective on January 1 of each year, beginning January 1, 1999, the maximum annual amount of the total loop cost expense adjustment for rural carriers must be further increased or decreased to reflect: (a) the addition of lines served by carriers that were classified as non-rural in the prior year but which, in the current year, meet the definition of "rural telephone company;" and (b) the deletion of lines served by carriers that were classified as rural in the prior year but which, in the current year, no longer meet the definition of "rural telephone company." A rural carrier is defined as a carrier that meets the definition of a "rural telephone company" in § 51.5 of this chapter. Limitations imposed by this subsection shall apply only to amounts calculated pursuant to this Subpart F.

5. Section 36.611 is amended by revising paragraph (a) as follows:

§ 36.611 Submission of information to the National Exchange Carrier Association.

(a) In order to allow determination of the study areas that are entitled to an expense adjustment, each incumbent local exchange carrier (ILEC) must provide the National Exchange Carrier Association (NECA) (established pursuant to Part 69 of this chapter) with the information listed below for each of its study areas. This information is to be filed with the Association by July 31st of each year. The information filed on July 31st of each year will be used in the jurisdictional allocations underlying the cost support data for the access charge tariffs to be filed the following October. An incumbent local exchange carrier is defined as a carrier that meets the definition of an "incumbent local exchange carrier" in
§ 51.5 of this chapter.

(1) Unseparated, i.e., state and interstate, gross plant investment in Exchange Line Cable and Wire Facilities (C&WF) Subcategory 1.3 and Exchange Line Central Office (CO) Circuit Equipment Category 4.13. This amount shall be calculated as of December 31st of the calendar year preceding each July 31st filing.

(2) Unseparated accumulated depreciation and noncurrent deferred federal income taxes, attributable to Exchange Line C&WF Subcategory 1.3 investment, and Exchange Line CO Circuit Equipment Category 4.13 investment. These amounts shall be calculated as of December 31st of the calendar year preceding each July 31st filing, and shall be stated separately.

(3) Unseparated depreciation expense attributable to Exchange Line C&WF Subcategory 1.3 investment, and Exchange Line CO Circuit Equipment Category 4.13 investment. This amount shall be the actual depreciation expense for the calendar year preceding each July 31st filing.

(4) Unseparated maintenance expense attributable to Exchange Line C&WF Subcategory 1.3 investment and Exchange Line CO Circuit Equipment Category 4.13 investment. This amount shall be the actual repair expense for the calendar year preceding each July 31st filing.

(5) Unseparated corporate operations expenses, operating taxes, and the benefits and rent portions of operating expenses. The amount for each of these categories of expense shall be the actual amount for that expense for the calendar year preceding each July 31st filing. The amount for each category of expense listed shall be stated separately.

(6) Unseparated gross telecommunications plant investment. This amount shall be calculated as of December 31st of the calendar year preceding each July 31st filing.

(7) Unseparated accumulated depreciation and noncurrent deferred federal income taxes attributable to total unseparated telecommunications plant investment. This amount shall be calculated as of December 31st of the calendar year preceding each July 31st filing.

(8) The number of working loops for each study area. For universal service support purposes, working loops are defined as the number of working Exchange Line C&WF loops used jointly for exchange and message telecommunications service, including C&WF subscriber lines associated with pay telephones in C&WF Category 1, but excluding WATS closed end access and TWX service. This figure shall be calculated as of December 31st of the calendar year preceding

each July 31st filing.

6. Section 36.612 is amended by revising paragraph (a) as follows:

§ 36.612 Updating information submitted to the National Exchange Carrier Association.

(a) Any telecommunications company may update the information submitted to the National Exchange Carrier Association pursuant to § 36.611(a)(1) through (a)(8) of this part one or more times annually on a rolling year basis. Carriers wishing to update the preceding calendar year data filed July 31st may: * * *

7. Section 36.613 is amended by revising the first sentence of paragraph (a) as follows:

§ 36.613 Submission of information by the National Exchange Carrier Association.

(a) On October 1 of each year, the National Exchange Carrier Association shall file with the Commission and any other party designated as the Permanent Administrator the information listed below. * * *

8. Section 36.621 is amended by adding an additional sentence to paragraph (a)(4).

§ 36.621 Study area total unseparated loop cost.

(a) * * *

(4) Corporate Operations Expenses, Operating Taxes and the benefits and rent portions of operating expenses, as reported in § 36.611(a)(5) attributable to investment in C&WF Category 1.3 and COE Category 4.13. This amount is calculated by multiplying the total amount of these expenses and taxes by the ratio of the unseparated gross exchange plant investment in C&WF Category 1.3 and COE Category 4.13, as reported in § 36.611(a)(1) of this part, to the unseparated

gross telecommunications plant investment, as reported in § 36.611(a)(6) of this part. Total Corporate Operations Expense, for purposes of calculating universal service support payments beginning January 1, 1998, shall be limited to the lesser of: (i) the actual average monthly per-line Corporate Operations Expense or (ii) a per-line amount computed according to (A) and (B) below. To the extent that some carriers' corporate operations expenses are disallowed pursuant to these limitations, the national average unseparated cost per loop shall be adjusted accordingly.

(A) For study areas of 10,000 or fewer working loops; [$27.12 minus (.002 times the number of working loops)] times 1.15.

(B) For study areas of more than 10,000 working loops; $7.12 times 1.15, which equals $8.19.

9. Section 36.622 is amended by revising paragraph (c) and adding paragraph (d) as follows:

§ 36.622 National and study area average unseparated loop costs.

* * * * *

(c) The National Average Unseparated Loop Cost per Working Loop shall be the greater of:

(1) The amount calculated pursuant to the method described in paragraph (a) of this section; or

(2) An amount calculated to produce the maximum total Universal Service Fund allowable pursuant to § 36.601(c).

(d) Beginning January 1, 2000, the National Average Unseparated Loop Cost per Working Loop shall be the greater of:

(1) The 1997 national-average unseparated loop cost per working loop plus an annual inflation adjustment. The annual inflation adjustment shall be based on the Gross Domestic Product Chained Price Index (GDP-CPI) of the year which the loop costs are reported pursuant to § 36.611. As an example, the inflation-adjusted nationwide average loop cost for the year 2000 shall be calculated in the following manner:

$$\frac{\text{1998 GDP-CPI}}{\text{1997 GDP-CPI}} \times \text{1997 nationwide average loop cost} = \text{2000 inflation-adjusted nationwide average loop cost.}$$

or

(2) An amount calculated to produce the maximum total Universal Service Fund allowable pursuant to § 36.601(c).

10. In § 36.701, paragraph (c) is added to read as follows:

§ 36.701 General

* * * * *

(c) This subpart shall be effective through December 31, 1997. On January 1, 1998, Lifeline Connection Assistance shall be provided in accordance with Subpart E of Part 54.

11. Part 54 of Title 47 of the Code of Federal Regulations (CFR) is added to read as follows:

PART 54 -- UNIVERSAL SERVICE

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Sec.
54.1 Basis and purpose.

54.5 **Terms and definitions.**
54.7 **Intended use of federal universal service support.**

Subpart B - Services Designated for Support

54.101 **Supported services for rural, insular and high cost areas.**

Subpart C - Carriers Eligible for Universal Service Support

54.201 **Designation of eligible telecommunications carriers, generally.**
54.203 **Designation of eligible telecommunications carriers for unserved areas.**
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54.207 **Service areas.**

Subpart D - Universal Service Support for High Cost Areas

54.301 **Local switching support.**
54.303 **Long term support.**
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54.400 **Terms and definitions.**
54.401 **Lifeline defined.**
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program.
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54.701 Administrator of universal service support mechanisms.
54.703 Contributions.
54.705 De minimis exemption.
54.707 Audit controls.

AUTHORITY: 47 USC Secs. 1, 4(i), 201, 205, 214, and 254 unless otherwise noted.

Subpart A - General Information

§ 54.1 Basis and purpose.

(a) *Basis*. These rules are issued pursuant to the Communications Act of 1934, as amended.

(b) *Purpose*. The purpose of these rules is to implement section 254 of the Communications Act of 1934, as amended, 47 USC § 254.

§ 54.5 Terms and definitions.

Terms used in this part have the following meanings:

Act. The term "Act" refers to the Communications Act of 1934, as amended.

Administrator. The "administrator" is the entity that administers the universal service support mechanisms in accord with subpart H of this part.

Competitive eligible telecommunications carrier. A "competitive eligible telecommunications carrier" is a carrier that meets the definition of an "eligible telecommunications carrier" below and does not meet the definition of an "incumbent local exchange carrier" in § 51.5 of this chapter.

Eligible telecommunications carrier. "Eligible telecommunications carrier" means a carrier designated as such by a state commission pursuant to § 54.201 of this part.

Geographic service area. A "geographic service area" is the area in which a telecommunications carrier is seeking to serve customers.

Incumbent local exchange carrier. "Incumbent local exchange carrier" or "ILEC" has the same meaning as that term is defined in § 51.5 of this chapter.

Information service. "Information service" is the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.

Internet access. "Internet access" includes the following elements:

(1) the transmission of information as common carriage;

(2) the transmission of information as part of a gateway to an information service, when that transmission does not involve the generation or alteration of the content of information, but may include data transmission, address translation, protocol conversion, billing management, introductory information content, and navigational systems that enable users to access information services, and that do not affect the presentation of such information to users; and

(3) electronic mail services (e-mail).

Interstate telecommunication. "Interstate telecommunication" is a communication or transmission:

(1) from any State, Territory, or possession of the United States (other than the Canal

zone), or the District of Columbia, to any other State, Territory, or possession of the United States (other than the Canal Zone), or the District of Columbia,

(2) from or to the United States to or from the Canal Zone, insofar as such communications or transmission takes place within the United States, or

(3) between points within the United States but through a foreign country.

Interstate transmission. "Interstate transmission" is the same as interstate telecommunication.

Intrastate telecommunication. "Intrastate telecommunication" is a communication or transmission from within any State, Territory, or possession of the United States, or the District of Columbia to a location within that same State, Territory, or possession of the United States, or the District of Columbia.

Intrastate transmission. "Intrastate transmission" is the same as intrastate telecommunication.

LAN. "LAN" is a local area network, which is a set of high-speed links connecting devices, generally computers, on a single shared medium, usually on the user's premises.

Rural area. A "rural area" is a nonmetropolitan county or county equivalent, as defined in the Office of Management and Budget's (OMB) Revised Standards for Defining Metropolitan Areas in the 1990s, 55 Fed. Reg. 12,154 (1990), and identifiable from the most recent Metropolitan Statistical Area (MSA) list released by OMB, or any contiguous non-urban Census Tract or Block Numbered Area within an MSA-listed metropolitan county identified in the most recent Goldsmith Modification published by the Office of Rural Health Policy of the U.S. Department of Health and Human Services.

Rural telephone company. "Rural telephone company" has the same meaning as that term is defined in § 51.5 of this chapter.

State commission. The term "state commission" means the commission, board or official (by whatever name designated) that, under the laws of any state, has regulatory jurisdiction with respect

to intrastate operations of carriers.

Technically feasible. "Technically feasible" means capable of accomplishment as evidenced by prior success under similar circumstances. For example, preexisting access at a particular point evidences the technical feasibility of access at substantially similar points. A determination of technical feasibility does not consider economic, accounting, billing, space or site except that space and site may be considered if there is no possibility of expanding available space.

Telecommunications. "Telecommunications" is the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.

Telecommunications carrier. A "telecommunications carrier" is any provider of telecommunications services, except that such term does not include aggregators of telecommunications services as defined in section 226 of the Act. A telecommunications carrier shall be treated as a common carrier under the Act only to the extent that it is engaged in providing telecommunications services, except that the Commission shall determine whether the provision of fixed and mobile satellite service shall be treated as common carriage. This definition includes cellular mobile radio service (CMRS) providers, interexchange carriers (IXCs) and, to the extent they are acting as telecommunications carriers, companies that provide both telecommunications and information services. Private mobile radio service (PMRS) providers are telecommunications carriers to the extent they provide domestic or international telecommunications for a fee directly to the public.

Telecommunications channel. "Telecommunications channel" means a telephone line, or, in the case of wireless communications, a transmittal line or cell site.

Telecommunications service. "Telecommunications service" is the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

§ 54.7 Intended use of federal universal service support.

A carrier that receives federal universal service support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended.

Subpart B - Services Designated for Support

§ 54.101 Supported services for rural, insular and high cost areas.

(a) *Services Designated for Support*. The following services or functionalities shall be supported by Federal universal service support mechanisms:

(1) *Voice grade access to the public switched network.* "Voice grade access" is defined as a functionality that enables a user of telecommunications services to transmit voice communications, including signalling the network that the caller wishes to place a call, and to receive voice communications, including receiving a signal indicating there is an incoming call. For purposes of this Part, voice grade access shall occur within the frequency range of between approximately 500 Hertz and 4,000 Hertz, for a bandwidth of approximately 3,500 Hertz;

(2) *Local usage*. "Local usage" means an amount of minutes of use of exchange service, prescribed by the Commission, provided free of charge to end users;

(3) *Dual tone multi-frequency signaling or its functional equivalent.* "Dual tone multi-frequency" (DTMF) is a method of signaling that facilitates the transportation of signaling through the network, shortening call set-up time;

(4) *Single-party service or its functional equivalent.* "Single-party service" is telecommunications service that permits users to have exclusive use of a wireline subscriber loop or access line for each call placed, or, in the case of wireless telecommunications carriers, which use spectrum shared among users to provide service, a dedicated message path for the length of a user's particular transmission;

(5) *Access to emergency services*. "Access to emergency services" includes access to services, such as 911 and enhanced 911, provided by local governments or other public safety organizations. 911 is defined as a service that permits a telecommunications user, by dialing the three-digit code "911," to call emergency services through a Public Service Access Point (PSAP) operated by the local government. "Enhanced 911" is defined as 911 service that includes the ability to provide automatic numbering information (ANI), which enables the PSAP to call back if the call is disconnected, and automatic location information (ALI), which permits emergency service providers to identify the geographic location of the calling party. "Access to emergency services" includes access to 911 and enhanced 911 services to the extent the local government in an eligible carrier's service area has implemented 911 or enhanced 911 systems;

(6) *Access to operator services.* "Access to operator services" is defined as access to any automatic or live assistance to a consumer to arrange for billing or completion, or both, of a telephone call;

(7) *Access to interexchange service.* "Access to interexchange service" is defined as the use of the loop, as well as that portion of the switch that is paid for by the end user, or the functional equivalent of these network elements in the case of a wireless carrier, necessary to access an interexchange carrier's network;

(8) *Access to directory assistance*. "Access to directory assistance" is defined as access to a service that includes, but is not limited to, making available to customers, upon request, information contained in directory listings; and

(9) *Toll limitation for qualifying low-income consumers*. Toll limitation for qualifying low-income consumers is described in Subpart E.

(b) *Requirement to Offer all Designated Services*. An eligible telecommunications carrier must offer each of the services set forth in paragraph (a) of this section in order to receive Federal universal service support.

(c) *Additional Time to Complete Network Upgrades*. A state commission may grant the petition of a telecommunications carrier that is otherwise eligible to receive universal service support under § 54.201 of this part requesting additional time to complete the network upgrades needed to provide single-party service, access to enhanced 911 service, or toll limitation. If such petition is granted, the otherwise eligible telecommunications carrier will be permitted to receive universal service support for the duration of the period designated by the state commission. State commissions should grant such a request only upon a finding that exceptional circumstances prevent an otherwise eligible telecommunications carrier from providing single-party service, access to enhanced 911 service, or toll limitation. The period should extend only as long as the relevant state commission finds that exceptional circumstances exist and should not extend beyond the time that the state commission deems necessary for that eligible telecommunications carrier to complete network upgrades. An otherwise eligible telecommunications carrier that is incapable of offering one or more of these three specific universal services must demonstrate to the state commission that exceptional circumstances exist with respect to each service for which the carrier desires a grant of additional time to complete network upgrades.

Subpart C - Carriers Eligible for Universal Service Support

§ 54.201 Designation of eligible telecommunications carriers, generally.

(a) *Carriers eligible to receive support.*

(1) Beginning January 1, 1998, only eligible telecommunications carriers designated under paragraphs (b) through (d) of this section shall receive universal service support distributed pursuant to Part 36 and Part 69 of this chapter, and subparts D and E of this part.

(2) Only eligible telecommunications carriers designated under paragraphs (b) through (d) of this section shall receive universal service support distributed pursuant to subpart G of this part. This subparagraph does not apply to support distributed pursuant to § 54.621(a) of subpart G.

(3) This paragraph does not apply to support distributed pursuant to subpart F of this

part.

(b) A state commission shall upon its own motion or upon request designate a common carrier that meets the requirements of paragraph (d) of this section as an eligible telecommunications carrier for a service area designated by the state commission.

(c) Upon request and consistent with the public interest, convenience, and necessity, the state commission may, in the case of an area served by a rural telephone company, and shall, in the case of all other areas, designate more than one common carrier as an eligible telecommunications carrier for a service area designated by the state commission, so long as each additional requesting carrier meets the requirements of paragraph (d) of this section. Before designating an additional eligible telecommunications carrier for an area served by a rural telephone company, the state commission shall find that the designation is in the public interest.

(d) A common carrier designated as an eligible telecommunications carrier under this section shall be eligible to receive universal service support in accordance with section 254 of the Act and shall, throughout the service area for which the designation is received:

(1) offer the services that are supported by federal universal service support mechanisms under subpart B of this part and section 254(c) of the Act, either using its own facilities or a combination of its own facilities and resale of another carrier's services (including the services offered by another eligible telecommunications carrier); and

(2) advertise the availability of such services and the charges therefore using media of general distribution.

(e) For the purposes of this section, the term "facilities" means any physical components of the telecommunications network that are used in the transmission or routing of the services that are designated for support pursuant to subpart B of this part.

(f) For the purposes of this section, the term "own facilities" includes, but is not limited to,

facilities obtained as unbundled network elements pursuant to Part 51 of this title, provided that such facilities meet the definition of the term "facilities" under this subpart.

(g) A state commission shall not require a common carrier, in order to satisfy the requirements of paragraph (d)(1) of this section, to use facilities that are located within the relevant service area, as long as the carrier uses facilities to provide the services designated for support pursuant to subpart B of this part within the service area.

(h) A state commission shall designate a common carrier that meets the requirements of this section as an eligible telecommunications carrier irrespective of the technology used by such carrier.

(i) A state commission shall not designate as an eligible telecommunications carrier a telecommunications carrier that offers the services supported by federal universal service support mechanisms exclusively through the resale of another carrier's services.

§ 54.203 Designation of eligible telecommunications carriers for unserved areas.

(a) If no common carrier will provide the services that are supported by federal universal service support mechanisms under section 254(c) of the Act to an unserved community or any portion thereof that requests such service, the Commission, with respect to interstate services, or a state commission, with respect to intrastate services, shall determine which common carrier or carriers are best able to provide such service to the requesting unserved community or portion thereof and shall order such carrier or carriers to provide such service for that unserved community or portion thereof.

(b) Any carrier or carriers ordered to provide such service under this section shall meet the requirements of § 54.201 and shall be designated as an eligible telecommunications carrier for that community or portion thereof.

§ 54.205 Relinquishment of universal service.

(a) A state commission shall permit an eligible telecommunications carrier to relinquish its designation as such a carrier in any area served by more than one eligible telecommunications carrier. An eligible telecommunications carrier that seeks to relinquish its eligible telecommunications carrier designation for an area served by more than one eligible telecommunications carrier shall give advance notice to the state commission of such relinquishment.

(b) Prior to permitting a telecommunications carrier designated as an eligible telecommunications carrier to cease providing universal service in an area served by more than one eligible telecommunications carrier, the state commission shall require the remaining eligible telecommunications carrier or carriers to ensure that all customers served by the relinquishing carrier will continue to be served, and shall require sufficient notice to permit the purchase or construction of adequate facilities by any remaining eligible telecommunications carrier. The state commission shall establish a time, not to exceed one year after the state commission approves such relinquishment under this section, within which such purchase or construction shall be completed.

§ 54.207 Service areas.

(a) The term "service area" means a geographic area established by a state commission for the purpose of determining universal service obligations and support mechanisms. A service area defines the overall area for which the carrier shall receive support from federal universal service support mechanisms

(b) In the case of a service area served by a rural telephone company, "service area" means such company's "study area" unless and until the Commission and the states, after taking into account recommendations of a Federal-State Joint Board instituted under section 410(c) of the Act, establish a different definition of service area for such company.

(c) If a state commission proposes to define a service area served by a rural telephone company to be other than such company's study area, the Commission will consider that proposed definition in accordance with the procedures set forth in this paragraph.

(1) A state commission or other party seeking the Commission's agreement in redefining a service area served by a rural telephone company shall submit a petition to the Commission. The petition shall contain:

(i) the definition proposed by the state commission; and

(ii) the state commission's ruling or other official statement presenting the state commission's reasons for adopting its proposed definition, including an analysis that takes into account the recommendations of any Federal-State Joint Board convened to provide recommendations with respect to the definition of a service area served by a rural telephone company.

(2) The Commission shall issue a Public Notice of any such petition within fourteen (14) days of its receipt.

(3) The Commission may initiate a proceeding to consider the petition within ninety (90) days of the release date of the Public Notice.

(i) If the Commission initiates a proceeding to consider the petition, the proposed definition shall not take effect until both the state commission and the Commission agree upon the definition of a rural service area, in accordance with paragraph (b) of this section and section 214(e)(5) of the Act.

(ii) If the Commission does not act on the petition within ninety (90) days of the release date of the Public Notice, the definition proposed by the state commission will be deemed approved by the Commission and shall take effect in accordance with state procedures.

(d) The Commission may, on its own motion, initiate a proceeding to consider a definition of a service area served by a rural telephone company that is different from that company's study area. If it proposes such different definition, the Commission shall seek the agreement of the state commission according to this paragraph.

(1) The Commission shall submit a petition to the state commission according to that state commission's procedures. The petition submitted to the relevant state commission shall contain:

(i) the definition proposed by the Commission; and

(ii) the Commission's decision presenting its reasons for adopting the proposed definition, including an analysis that takes into account the recommendations of any Federal-State Joint Board convened to provide recommendations with respect to the definition of a service area served by a rural telephone company.

(2) The Commission's proposed definition shall not take effect until both the state commission and the Commission agree upon the definition of a rural service area, in accordance with paragraph (b) of this section and section 214(e)(5) of the Act.

(e) The Commission delegates its authority under paragraphs (c) and (d) of this section to the Chief, Common Carrier Bureau.

Subpart D - Universal Service Support for High Cost Areas

§ 54.301 Local switching support.

Beginning January 1, 1998, eligible rural telephone company study areas with 50,000 or fewer access lines shall receive support for local switching costs, defined as Category 3 local switching costs under the current Part 36 rules, using the following formula: the carrier's annual unseparated local switching revenue requirement shall be multiplied by the local switching support factor. The local switching support factor shall be defined as the difference between the 1996 weighted interstate DEM factor, calculated pursuant to section 36.125(f) of the rules, and the 1996 unweighted interstate DEM factor. If the number of a study area's access lines increases such that, under current rule section 36.125(f), the weighted interstate DEM factor for 1997 or any successive year would be reduced, that lower weighted interstate DEM factor shall be applied to the carrier's 1996 unweighted interstate DEM factor to derive a new local switching support factor. Beginning January 1, 1998, the

sum of the unweighted interstate DEM factor and the local switching support factor shall not exceed .85. If the sum of those two factors would exceed .85, the local switching support factor must be reduced to a level that would reduce the sum of the factors to .85.

§ 54.303 Long term support.

Beginning January 1, 1998, eligible telephone companies that participate in the NECA Carrier Common Line pool and competitive eligible local telecommunications carriers will receive Long Term Support. Long Term Support shall be the equivalent of the difference between the projected Carrier Common Line revenue requirement of association Common Line tariff participants and the projected revenue recovered by the association Common Carrier Line charge as calculated pursuant to § 69.105(b)(1). For calendar years 1998 and 1999, the Long Term Support for each eligible service area shall be adjusted each year to reflect the annual percentage change in the actual nationwide average loop cost as filed by the fund administrator in the previous calendar year, pursuant to 47 C.F.R. § 36.622. Beginning January 1, 2000, the Long Term Support shall be adjusted each year to reflect the annual percentage change in the Department of Commerce's Gross Domestic Product-Chained Price Index (GDP-CPI).

§ 54.305 Sale or transfer of exchanges.

A carrier that acquires telephone exchanges from an unaffiliated carrier shall receive universal service support for the acquired exchanges at the same per-line support levels for which those exchanges were eligible prior to the transfer of the exchanges. A carrier that has entered into a binding commitment to buy exchanges prior to May 7, 1997 will receive support for the newly acquired lines based upon the average cost of all of its lines, both those newly acquired and those it had prior to execution of the sales agreement.

§ 54.307 Support to a competitive eligible telecommunications carrier.

(a) *Calculation of support*. A competitive eligible telecommunications carrier shall receive universal service support to the extent that the competitive eligible telecommunications carrier

captures an incumbent local exchange carrier's (ILEC) subscriber lines or serves new subscriber lines in the ILEC's service area.

(1) A competitive eligible telecommunications carrier shall receive support for each line it serves based on the support the ILEC receives for each line.

(2) The ILEC's per-line support shall be calculated by dividing the ILEC's universal service support by the number of loops served by that ILEC at its most recent annual loop count.

(3) A competitive eligible telecommunications carrier that uses switching functionalities purchased as unbundled network elements pursuant to § 51.307 of this title to provide the supported services shall receive the lesser of the unbundled network element price for switching or the per-line DEM support of the ILEC, if any. A competitive eligible telecommunications carrier that uses loops purchased as unbundled network elements pursuant to § 51.307 of this title to provide the supported services shall receive the lesser of the unbundled network element price for the loop or the ILEC's per-line payment from the high cost loop support and LTS, if any. The ILEC providing nondiscriminatory access to unbundled network elements to such competitive eligible telecommunications carrier shall receive the difference between the level of universal service support provided to the competitive eligible telecommunications carrier and the per-customer level of support previously provided to the ILEC.

(4) A competitive eligible telecommunications carrier that does not provide the supported services using neither unbundled network elements purchased pursuant to § 51.307 of this title nor wholesale service purchased pursuant to section 251(c)(4) of the Act will receive the full amount of universal service support previously provided to the ILEC for that customer.

(b) *Submission of information to the Administrator*. In order to receive universal service support, a competitive eligible telecommunications carrier must provide the Administrator on or before July 31st of each year the number of working loops it serves in a service area. For universal service support purposes, working loops are defined as the number of working Exchange Line C&WF loops used jointly for exchange and message telecommunications service, including C&WF

subscriber lines associated with pay telephones in C&WF Category 1, but excluding WATS closed end access and TWX service. This figure shall be calculated as of December 31st of the year preceding each July 31st filing.

Subpart E - Universal Service Support for Low-Income Consumers

§ 54.400 Terms and definitions.

(a) As used in this subpart, the following terms shall be defined as follows:

(1) *Qualifying low-income subscriber*. A "qualifying low-income subscriber" is a subscriber who meets the low-income eligibility criteria established by the state commission, or, in states that do not establish eligibility criteria, a subscriber who participates in a state-administered, low-income welfare program.

(2) *Toll blocking.* "Toll blocking" is a service provided by carriers that lets consumers elect not to allow the completion of outgoing toll calls from their telecommunications channel.

(3) *Toll control.* "Toll control" is a service provided by carriers that allows consumers to specify a certain amount of toll usage that may be incurred on their telecommunications channel per month or per billing cycle.

(4) *Toll limitation.* "Toll limitation" denotes both toll blocking and toll control.

§ 54.401 Lifeline defined.

(a) As used in this subpart, "Lifeline" means a retail local service offering:

(1) that is available only to qualifying low-income consumers;

(2) for which qualifying low-income consumers pay reduced charges as a result of application of the Lifeline support amount described in section 54.403; and

(3) that includes the services or functionalities enumerated in § 54.101(a)(1) - (9) of this subpart. The carriers shall offer toll limitation to all qualifying low-income consumers at the time such consumers subscribe to Lifeline service. If the consumer elects to receive toll limitation, that service shall become part of that consumer's Lifeline service.

(b) Eligible telecommunications carriers may not disconnect Lifeline service for non-payment of toll charges.

(1) State commissions may grant a waiver of this requirement if the local exchange carrier can demonstrate that:

(i) it would incur substantial costs in complying with this requirement;

(ii) it offers toll limitation to its qualifying low-income consumers without charge; and

(iii) telephone subscribership among low-income consumers in the carrier's service area is greater than or equal to the national subscribership rate for low-income consumers. For purposes of this paragraph, a "low-income consumer" is one with an income below the poverty level for a family of four residing in the state for which the carrier seeks the waiver. The carrier may reapply for the waiver.

(2) A carrier may file a petition for review of the state commission's decision with the Commission within 30 days of that decision. If a state commission has not acted on a petition for a waiver of this requirement within 30 days of its filing, the carrier may file that petition with the Commission on the 31st day after that initial filing.

(c) Eligible telecommunications carriers may not collect a service deposit in order to initiate

Lifeline service, if the qualifying low-income consumer voluntarily elects toll blocking from the carrier, where available. If toll blocking is unavailable, the carrier may charge a service deposit.

(d) The state commission shall file or require the carrier to file information with the Administrator demonstrating that the carrier's Lifeline plan meets the criteria set forth in this subpart and stating the number of qualifying low-income consumers and the amount of state assistance. Lifeline assistance shall be made available to qualifying low-income consumers as soon as the Administrator certifies that the carrier's Lifeline plan satisfies the criteria set out in this Subpart.

§ 54.403 Lifeline support amount.

(a) The federal baseline Lifeline support amount shall equal $3.50 per qualifying low-income consumer. If the state commission approves an additional reduction of $1.75 in the amount paid by consumers, additional federal Lifeline support in the amount of $1.75 will be made available to the carrier providing Lifeline service to that consumer. Additional federal Lifeline support in an amount equal to one-half the amount of any state Lifeline support will be made available to the carrier providing Lifeline service to a qualifying low-income consumer if the state commission approves an additional reduction in the amount paid by that consumer equal to the state support multiplied by 1.5. The federal Lifeline support amount shall not exceed $7.00 per qualifying low-income consumer.

(b) Eligible carriers that charge federal End-User Common Line charges or equivalent federal charges shall apply the federal baseline Lifeline support to waive Lifeline consumers' federal End-User Common Line charges. Such carriers shall apply any additional federal support amount to a qualifying low-income consumer's intrastate rate, if the state has approved of such additional support. Other carriers shall apply the federal baseline Lifeline support amount, plus the additional support amount, where applicable, to reduce their lowest tariffed (or otherwise generally available) residential rate for the services enumerated in
§ 54.101(a)(1)-(9) of this part, and charge Lifeline consumers the resulting amount.

(c) Lifeline support for providing toll limitation shall equal the eligible telecommunications carrier's incremental cost of providing either toll blocking or toll control, whichever is selected by the

particular consumer.

§ 54.405 Carrier obligation to offer Lifeline.

All eligible telecommunications carriers shall make available Lifeline service, as defined in § 54.401, to qualifying low-income consumers.

§ 54.407 Reimbursement for offering Lifeline.

(a) Universal service support for providing Lifeline shall be provided directly to the eligible telecommunications carrier, based on the number of qualifying low-income consumers it serves, under administrative procedures determined by the Administrator.

(b) The eligible telecommunications carrier may receive universal service support reimbursement for each qualifying low-income consumer served. For each consumer receiving Lifeline service, the reimbursement amount shall equal the federal support amount, including the support amount described in § 54.403(c). The eligible telecommunications carrier's universal service support reimbursement shall not exceed the carrier's standard, non-Lifeline rate.

(c) In order to receive universal service support reimbursement, the eligible telecommunications carrier must keep accurate records of the revenues it forgoes in providing Lifeline in conformity with § 54.401. Such records shall be kept in the form directed by the Administrator and provided to the Administrator at intervals as directed by the Administrator or as provided in this Subpart.

§ 54.409 Consumer qualification for Lifeline.

(a) To qualify to receive Lifeline service in states that provide state Lifeline service support, a consumer must meet the criteria established by the state commission. The state commission shall establish narrowly targeted qualification criteria that are based solely on income or factors directly related to income.

(b) To qualify to receive Lifeline in states that do not provide state Lifeline support, a consumer must participate in one of the following programs: Medicaid; food stamps; Supplemental Security Income; federal public housing assistance; or Low-Income Home Energy Assistance Program. In states not providing state Lifeline support, each carrier offering Lifeline service to a consumer must obtain that consumer's signature on a document certifying under penalty of perjury that consumer receives benefits from one of the programs mentioned in this paragraph and identifying the program or programs from which that consumer receives benefits. On the same document, a qualifying low-income consumer also must agree to notify the carrier if that consumer ceases to participate in the program or programs.

§ 54.411 Link Up program defined.

(a) For purposes of this Subpart, the term "Link Up" shall describe the following assistance program for qualifying low-income consumers, which an eligible telecommunications carrier shall offer as part of its obligation set forth in §§ 54.101(a)(9) and 54.101(b) of this part:

(1) a reduction in the carrier's customary charge for commencing telecommunications service for a single telecommunications connection at a consumer's principal place of residence. The reduction shall be half of the customary charge or $30.00, whichever is less; and

(2) a deferred schedule for payment of the charges assessed for commencing service, for which the consumer does not pay interest. The interest charges not assessed to the consumer shall be for connection charges of up to $200.00 that are deferred for a period not to exceed one year. Charges assessed for commencing service include any charges that the carrier customarily assesses to connect subscribers to the network. These charges do not include any permissible security deposit requirements.

(b) A qualifying low-income consumer may choose one or both of the programs set forth in paragraph (a) of this section.

(c) A carrier's Link Up program shall allow a consumer to receive the benefit of the Link Up

program for a second or subsequent time only for a principal place of residence with an address different from the residence address at which the Link Up assistance was provided previously.

§ 54.413 Reimbursement for revenue forgone in offering a Link Up program.

(a) Eligible telecommunications carriers may receive universal service support reimbursement for the revenue they forgo in reducing their customary charge for commencing telecommunications service and for providing a deferred schedule for payment of the charges assessed for commencing service for which the consumer does not pay interest, in conformity with § 54.411.

(b) In order to receive universal service support reimbursement for providing Link Up, eligible telecommunications carriers must keep accurate records of the revenues they forgo in reducing their customary charge for commencing telecommunications service and for providing a deferred schedule for payment of the charges assessed for commencing service for which the consumer does not pay interest, in conformity with § 54.411. Such records shall be kept in the form directed by the Administrator and provided to the Administrator at intervals as directed by the Administrator or as provided in this Subpart. The forgone revenues for which the eligible telecommunications carrier may receive reimbursement shall include only the difference between the carrier's customary connection or interest charges and the charges actually assessed to the participating low-income consumer.

§ 54.415 Consumer qualification for Link Up.

(a) In states that provide state Lifeline service, the consumer qualification criteria for Link Up shall be the same criteria that the state established for Lifeline qualification in accord with § 54.409(a).

(b) In states that do not provide state Lifeline service, the consumer qualification criteria for Link Up shall be the same as the criteria set forth in § 54.409(b).

§ 54.417 Transition to the new Lifeline and Link Up programs.

The rules in this subpart shall take effect on January 1, 1998.

Subpart F - Universal Service Support for Schools and Libraries

§ 54.500 Terms and definitions.

(a) Terms used in this subpart have the following meanings:

(1) *Elementary school.* An "elementary school" is a non-profit institutional day or residential school that provides elementary education, as determined under state law.

(2) *Internal connections.* A given service is eligible for support as a component of the institution's internal connections only if it is necessary to transport information to individual classrooms. Thus, internal connections includes items such as routers, hubs, network file servers, and wireless LANs and their installation and basic maintenance because all are needed to switch and route messages within a school or library.

(3) *Library.* A "library" includes:

(i) a public library;

(ii) a public elementary school or secondary school library;

(iii) an academic library;

(iv) a research library, which for the purposes of this definition means a library that:

(A) makes publicly available library services and materials suitable for scholarly research and not otherwise available to the public; and

(B) is not an integral part of an institution of higher education; and

(v) a private library, but only if the state in which such private library is located determines that the library should be considered a library for the

purposes of this definition.

(4) *Library consortium.* A "library consortium" is any local, statewide, regional, or interstate cooperative association of libraries that provides for the systematic and effective coordination of the resources of school, public, academic, and special libraries and information centers, for improving services to the clientele of such libraries. For the purposes of these rules, references to library will also refer to library consortium.

(5) *Lowest corresponding price.* "Lowest corresponding price" is the lowest price that a service provider charges to non-residential customers who are similarly situated to a particular school, library, or library consortium for similar services.

(6) *National school lunch program.* The "national school lunch program" is a program administered by the U.S. Department of Agriculture and state agencies that provides free or reduced price lunches to economically disadvantaged children. A child whose family income is between 130 percent and 185 percent of applicable family size income levels contained in the nonfarm poverty guidelines prescribed by the Office of Management and Budget is eligible for a reduced price lunch. A child whose family income is 130 percent or less of applicable family size income levels contained in the nonfarm income poverty guidelines prescribed by the Office of Management and Budget is eligible for a free lunch.

(7) *Pre-discount price.* The "pre-discount price" means, in this subpart, the price the service provider agrees to accept as total payment for its telecommunications or information services. This amount is the sum of the amount the service provider expects to receive from the eligible school or library and the amount it expects to receive as reimbursement from the universal service support mechanisms for the discounts provided under this subpart.

(8) *Secondary school.* A "secondary school" is a non-profit institutional day or residential school that provides secondary education, as determined under state law. A secondary school does not offer education beyond grade 12.

§ 54.501 Eligibility.

(a) Telecommunications carriers shall be eligible for universal service support under this subpart for providing supported services to eligible schools, libraries, and consortia including those entities.

(b) *Schools*.

(1) Only schools meeting the statutory definitions of "elementary school," as defined in 20 U.S.C. § 8801(14), or "secondary school," as defined in 20 U.S.C. § 8801(25), and not excluded under (a)(2) or (a)(3) of this subpart shall be eligible for discounts on telecommunications and other supported services and facilities under this subpart.

(2) Schools operating as for-profit businesses shall not be eligible for discounts under this subpart.

(3) Schools with endowments exceeding $50,000,000 shall not be eligible for discounts under this subpart.

(c) *Libraries*

(1) Only libraries eligible for assistance from a State library administrative agency under the Library Services and Technology Act (Pub. L. No. 104-208) and not excluded under (b)(2) or (b)(3) of this section shall be eligible for discounts under this subpart.

(2) A library's eligibility for universal service funding shall depend on its funding as an independent entity. Only libraries whose budgets are completely separate from any schools (including, but not limited to, elementary and secondary schools, colleges, and universities) shall be eligible for discounts as libraries under this subpart.

(3) Libraries operating as for-profit businesses shall not be eligible for discounts

under this subpart.

(d) *Consortia*.

(1) For purposes of seeking competitive bids for telecommunications services, schools and libraries eligible for support under this subpart may form consortia with other eligible schools and libraries, with health care providers eligible under subpart G, and with public sector (governmental) entities, including, but not limited to, state colleges and state universities, state educational broadcasters, counties, and municipalities, when ordering telecommunications and other supported services under this subpart. With one exception, eligible schools and libraries participating in consortia with ineligible private sector members shall not be eligible for discounts for interstate services under this subpart. A consortium may include ineligible private sector entities if the pre-discount prices of any services that such consortium receives from ILECs are generally tariffed rates.

(2) For consortia, discounts under this subpart shall apply only to the portion of eligible telecommunications and other supported services used by eligible schools and libraries.

(3) State agencies may receive discounts on the purchase of telecommunications and information services that they make on behalf of and for the direct use of eligible schools and libraries, as through state networks.

(4) Service providers shall keep and retain records of rates charged to and discounts allowed for eligible schools and libraries -- on their own or as part of a consortium. Such records shall be available for public inspection.

§ 54.502 Supported services.

For the purposes of this subpart, supported services provided by telecommunications carriers include all commercially available telecommunications services.

§ 54.503 Other supported special services.

For the purposes of this subpart, other supported special services provided by telecommunications carriers include Internet access and installation and maintenance of internal connections.

§ 54.504 Requests for Service.

(a) *Competitive Bidding Requirement.* All eligible schools, libraries, and consortia including those entities shall participate in a competitive bidding process, pursuant to the requirements established in this subpart, but this requirement shall not preempt state or local competitive bidding requirements.

(b) *Posting of Requests for Service.*

(1) Schools, libraries, and consortia including those entities wishing to receive discounts for eligible services under this subpart shall submit requests for services and facilities to a subcontractor designated by the administrator for this purpose. Requests for services and facilities shall include, at a minimum, the following information, to the extent applicable to the services requested:

(i) the computer equipment currently available or budgeted for purchase for the current, next, or other future academic years, as well as whether the computers have modems and, if so, what speed modems;

(ii) the internal connections, if any, that the school or library has in place or has budgeted to install in the current, next, or future academic years, or any specific plans for an organized voluntary effort to connect the classrooms;

(iii) the computer software necessary to communicate with other computers over an internal network and over the public telecommunications network currently available or budgeted for purchase for the current, next, or future academic years;

(iv) the experience of, and training received by, the relevant staff in the use of the equipment to be connected to the telecommunications network and training programs for which funds are committed for the current, next, or future academic years;

(v) existing or budgeted maintenance contracts to maintain computers; and

(vi) the capacity of the school's or library's electrical system in terms of how many computers can be operated simultaneously without creating a fire hazard.

(2) The request for services and facilities shall be signed by the person authorized to order telecommunications and other supported services for the school or library and shall include that person's certification under oath that:

(i) the school or library is an eligible entity under sections 254(h)(4) and 254(h)(5) of the Act and the rules adopted under this subpart;

(ii) the services requested will be used solely for educational purposes;

(iii) the services will not be sold, resold, or transferred in consideration for money or any other thing of value;

(iv) if the services are being purchased as part of an aggregated purchase with other entities, the request identities all co-purchasers and the services or portion of the services being purchased by the school or library;

(v) all of the necessary funding in the current funding year has been budgeted and approved to pay for the "non-discount" portion of requested connections and services as well as any necessary hardware, software, and to undertake the necessary staff training required to use the services effectively; and

(vi) the school, library, or consortium including those entities has complied

with all applicable state and local procurement processes.

(vii) the school, library, or consortium including those entities has a technology plan that has been certified by its state or an independent entity approved by the Commission.

(3) After posting a description of services from a school, library, or consortium of these entities on the school and library website, the administrator's subcontractor shall send confirmation of the posting to the entity requesting services. That entity shall then wait at least four weeks from the date on which its description of services is posted on the website before making commitments with the selected providers of services and facilities. The confirmation from the administrator shall include the date after which the requestor may sign a contract with its chosen provider(s).

(c) *Rate Disputes*. Schools, libraries, and consortia including those entities, and service providers may have recourse to the Commission, regarding interstate rates, and to state commissions, regarding intrastate rates, if they reasonably believe that the lowest corresponding price is unfairly high or low.

(1) Schools, libraries, and consortia including those entities may request lower rates if the rate offered by the carrier does not represent the lowest corresponding price.

(2) Service providers may request higher rates if they can show that the lowest corresponding price is not compensatory, because the relevant school, library, or consortium including those entities is not similarly situated to and subscribing to a similar set of services to the customer paying the lowest corresponding price.

§ 54.505 Discounts.

(a) *Discount Mechanism*. Discounts for eligible schools and libraries shall be set as a percentage discount from the pre-discount price.

(b) *Discount Percentages*. The discounts available to eligible schools and libraries shall range from 20 percent to 90 percent of the pre-discount price for all eligible services provided by eligible providers, as defined in this subpart. The discounts available to a particular school, library, or consortium of only such entities shall be determined by indicators of poverty and high cost.

(1) For schools and school districts, the level of poverty shall be measured by the percentage of their student enrollment that is eligible for a free or reduced price lunch under the national school lunch program or a federally-approved alternative mechanism. School districts applying for eligible services on behalf of their individual schools may calculate the district-wide percentage of eligible students using a weighted average. For example, a school district would divide the total number of students in the district eligible for the national school lunch program by the total number of students in the district to compute the district-wide percentage of eligible students. Alternatively, the district could apply on behalf of individual schools and use the respective percentage discounts for which the individual schools are eligible.

(2) For libraries and library consortia, the level of poverty shall be based on the percentage of the student enrollment that is eligible for a free or reduced price lunch under the national school lunch program or a federally-approved alternative mechanism in the public school district in which they are located. If the library is not in a school district then its level of poverty shall be based on an average of the percentage of students eligible for the national school lunch program in each of the school districts that children living in the library's location attend. Library systems applying for discounted services or facilities on behalf of their individual branches shall calculate the system-wide percentage of eligible families using an unweighted average based on the percentage of the student enrollment that is eligible for a free or reduced price lunch under the national school lunch program in the public school district in which they are located for each of their branches or facilities.

(3) The administrator shall classify schools and libraries as "urban" or "rural" based on location in an urban or rural area, according to the following designations.

(i) Schools and libraries located in metropolitan counties, as measured by the

Office of Management and Budget's Metropolitan Statistical Area method, shall be designated as urban, except for those schools and libraries located within metropolitan counties identified by census block or tract in the Goldsmith Modification.

(ii) Schools and libraries located in non-metropolitan counties, as measured by the Office of Management and Budget's Metropolitan Statistical Area method, shall be designated as rural. Schools and libraries located in rural areas within metropolitan counties identified by census block or tract in the Goldsmith Modification shall also be designated as rural.

(c) *Matrix*. The administrator shall use the following matrix to set a discount rate to be applied to eligible interstate services and facilities purchased by eligible schools, school districts, libraries, or library consortia based on the institution's level of poverty and location in an "urban" or "rural" area.

SCHOOLS & LIBRARIES DISCOUNT MATRIX	DISCOUNT LEVEL	
HOW DISADVANTAGED?	urban discount	rural discount
% of students eligible for national school lunch program		
< 1	20	25
1-19	40	50
20-34	50	60
35-49	60	70
50-74	80	80
75-100	90	90

(d) *Consortia*. Consortia applying for discounted services or facilities on behalf of their members shall calculate the portion of the total bill eligible for a discount using a weighted average based on the share of the pre-discount price for which each eligible school or library agrees to be financially liable. Each eligible school, school district, library or library consortia will be credited with the discount to which it is entitled.

(e) *Interstate and Intrastate Services*. Federal universal service support for schools and libraries shall be provided for both interstate and intrastate services.

(1) Federal universal service support under this subpart for eligible schools and libraries in a state is contingent upon the establishment of intrastate discounts no less than the discounts applicable for interstate services.

(2) A state may, however, secure a temporary waiver of this latter requirement based on unusually compelling conditions.

§ 54.507 Cap.

(a) *Amount of the Annual Cap*. The annual cap on federal universal service support for schools and libraries shall be $2.25 billion per funding year, and all funding authority for a given funding year that is unused shall be carried forward into subsequent years for use in accordance with demand, as determined by the administrator, with two exceptions. First, no more than $1 billion shall be collected or spent for the funding period from January 1, 1998 through June 30, 1998. Second, no more than half of the unused portion of the funding authority for calendar year 1998 shall be spent in calendar year 1999, and no more than half of the unused funding authority from calendar years 1998 and 1999 shall be used in calendar year 2000.

(b) *Funding Year*. The funding year for purposes of the schools and libraries cap shall be the calendar year.

(c) *Requests*. Funds shall be available to fund discounts for eligible schools and libraries and consortia of such eligible entities on a first-come-first-served basis, with requests accepted beginning on the first of July prior to each funding year. The administrator's subcontractor shall maintain a running tally of the funds that the administrator has already committed for the existing funding year on the school and library website.

(d) *Annual Filing Requirement*. Schools and libraries, and consortia of such eligible entities shall file new funding requests for each funding year no sooner than the July 1 prior to the start of that funding year.

(e) *Long Term Contracts*. If schools and libraries enter into long term contracts for eligible services, the administrator shall only commit funds to cover the pro rata portion of such a long term contract scheduled to be delivered during the funding year for which universal service support is sought.

(f) *Rules of Priority*. When expenditures in any funding year reach the level where only $250 million remains before the cap for the cap will be reached, funds shall be distributed in accordance to the following rules of priority:

(1) The administrator's subcontractor shall post a message on the school and library website, notify the Commission, and take reasonable steps to notify the educational and library communities that commitments for the remaining $250 million of support will only be made to the most economically disadvantaged schools and libraries (those in the two most disadvantaged categories) for the next 30 days or the remainder of the funding year, whichever is shorter.

(2) The most economically disadvantaged schools and libraries (those in the two most disadvantaged categories) that have not received discounts from the universal service support mechanism in the previous or current funding years shall have exclusive rights to secure commitments for universal service support under this subpart for a 30-day period or the remainder of the funding year, whichever is shorter. If such schools and libraries have received universal service support only for basic telephone service in the previous or current funding years, they shall remain eligible for the highest priority once spending commitments leave only $250 million remaining before the funding cap is reached.

(3) Other economically disadvantaged schools and libraries (those in the two most disadvantaged categories) that have received discounts from the universal service support mechanism in the previous or current funding years shall have the next highest priority, if additional funds are available at the end of the 30-day period or the funding year, whichever is shorter.

(4) If funds still remain after all requests submitted by schools and libraries described in paragraphs (f)(2) and (f)(3) of this section during the 30-day period have been met, the administrator shall allocate the remaining available funds to all other eligible schools and libraries in the order in which their requests have been received, until the $250 million is exhausted or the funding year ends.

§ 54.509 Adjustments to the discount matrix.

(a) *Estimating future spending requests.* When submitting their requests for specific amounts of funding for a funding year, schools, libraries, library consortia, and consortia including such entities shall also estimate their funding requests for the following funding year to enable the administrator to estimate funding demand for the following year.

(b) *Reduction in Percentage Discounts*. If the estimates schools and libraries make of their future funding needs lead the Administrator to predict that total funding requests for a funding year will exceed the available funding then the Administrator shall calculate the percentage reduction to all schools and libraries, except those in the two most disadvantaged categories, necessary to permit all requests in the next funding year to be fully funded. The administrator must then request the Commission's approval of the recommended adjustments.

(c) *Remaining Funds*. If funds remain under the cap at the end of the funding year in which discounts have been reduced below those set in the matrices above, the administrator shall consult with the Commission to establish the best way to distribute those funds.

§ 54.511 Ordering services.

(a) *Selecting a Provider of Eligible Services and Facilities*. In selecting a provider of eligible services and facilities, schools, libraries, library consortia, and consortia including any of those entities shall carefully consider all bids submitted and may consider relevant factors other than the pre-discount prices submitted by providers.

(b) *Lowest Corresponding Price*. Providers of eligible services and facilities shall not charge schools, school districts, libraries, library consortia, and consortia including any of those entities a price above the lowest corresponding price for supported services and facilities, unless the Commission, with respect to interstate services or the state commission with respect to intrastate services, finds that the lowest corresponding price is not compensatory.

(c) *Schools and libraries bound by existing contracts.* Schools and libraries bound by existing contracts for service shall not be required to breach those contracts in order to qualify for discounts

under this subpart during the period for which they are bound. This exemption from competitive bidding requirements, however, shall not apply to voluntary extensions of existing contracts.

§ 54.513 Resale.

(a) *Prohibition on Resale*. Eligible services purchased at a discount under this subpart shall not be sold, resold, or transferred in consideration of money or any other thing of value.

(b) *Permissible Fees*. This prohibition on resale shall not bar schools, school districts, libraries, and library consortia from charging either computer lab fees or fees for classes in how to navigate over the Internet. There is no prohibition on the resale of services that are not purchased pursuant to the discounts provided in this subpart.

§ 54.515 Distributing support.

(a) A telecommunications carrier providing services eligible for support under this subpart to eligible schools and libraries shall treat the amount eligible for support under this subpart as an offset against the carrier's universal service support obligation for the year in which the costs for providing eligible services were incurred.

(b) If the total amount of support owed to a carrier, as set forth in paragraph (a) of this section, exceeds its universal service obligation, calculated on an annual basis, the carrier may receive a direct reimbursement in the amount of the difference.

(c) Any reimbursement due a carrier shall be made after the offset is credited against that carrier's universal service obligation.

(d) Any reimbursement due a carrier shall be submitted to that carrier no later than the end of the first quarter of the calendar year following the year in which the costs were incurred and the offset against the carrier's universal service obligation was applied.

§ 54.516 Auditing.

(a) *Recordkeeping Requirements*. Schools and libraries shall be required to maintain for their purchases of telecommunications and other supported services and facilities at discounted rates the kind of procurement records that they maintain for other purchases.

(b) *Production of Records*. Schools and libraries shall produce such records at the request of any auditor appointed by a state education department, the administrator, or any state or federal agency with jurisdiction.

(c) *Random Audits*. Schools and libraries shall be subject to random compliance audits to evaluate what services they are purchasing and how such services are being used.

§ 54.517 Services provided by non-telecommunications carriers.

(a) Non-telecommunications carriers shall be eligible for universal service support under this subpart for providing covered services for eligible schools, libraries and consortia including those entities.

(b) *Supported services.* Non-telecommunications carriers shall be eligible for universal service for support under this subpart for providing Internet access and installation and maintenance of internal connections.

(c) *Requirements.* Such services provided by non-telecommunications carriers shall be subject to all the provisions of this subpart, except §§ 54.501(a), 54.502, 54.503, 54.515.

Subpart G - Universal Service Support for Health Care Providers

§ 54.601 Eligibility.

(a) *Health care providers*.

(1) Only an entity meeting the definition of "health care provider" as defined in this section shall be eligible to receive supported services under this subpart.

(2) For purposes of this subpart, a "health care provider" is any:

(i) post-secondary educational institution offering health care instruction, including a teaching hospital or medical school;
(ii) community health center or health center providing health care to migrants;
(iii) local health department or agency;
(iv) community mental health center;
(v) not-for-profit hospital;
(vi) rural health clinic; or
(vii) consortium of health care providers consisting of one or more entities described in clauses (i) through (vi).

(3) Only public or non-profit health care providers shall be eligible to receive supported services under this subpart.

(4) Except with regard to those services provided under § 54.621, only a rural health care provider shall be eligible to receive supported services under this subpart. A "rural health care provider" is a health care provider located in a rural area, as defined in this part.

(5) Each separate site or location of a health care provider shall be considered an individual health care provider for purposes of calculating and limiting support under this subpart.

(b) *Consortia*.

(1) An eligible health care provider may join a consortium with other eligible health care providers; with schools, libraries, and library consortia eligible under subpart F; and with public

sector (governmental) entities to order telecommunications services. With one exception, eligible health care providers participating in consortia with ineligible private sector members shall not be eligible for supported services under this subpart. A consortium may include ineligible private sector entities if such consortium is only receiving services at tariffed rates or at market rates from those providers who do not file tariffs.

(2) For consortia, universal service support under this subpart shall apply only to the portion of eligible services used by an eligible health care provider.

(3) Telecommunications carriers shall carefully maintain complete records of how they allocate the costs of shared facilities among consortium participants in order to charge eligible health care providers the correct amounts. Such records shall be available for public inspection.

(4) Telecommunications carriers shall calculate and justify with supporting documentation the amount of support for which each member of a consortium is eligible.

(c) *Services*.

(1) Any telecommunications service of a bandwidth up to and including 1.544 Mbps that is the subject of a properly completed bona fide request by a rural health care provider shall be eligible for universal service support, subject to the limitations described in this subpart. The length of a supported telecommunications service may not exceed the distance between the health care provider and the point farthest from that provider on the jurisdictional boundary of the nearest large city as defined in § 54.605(c).

(2) Limited toll-free access to an Internet service provider shall be eligible for universal service support under § 54.621.

§ 54.603 Competitive bidding.

(a) *Competitive bidding requirement.* To select the telecommunications carriers that will

provide services eligible for universal service support to it under this subpart, each eligible health care provider shall participate in a competitive bidding process pursuant to the requirements established in this subpart and any additional and applicable state, local, or other procurement requirements.

(b) *Posting of requests for service.*

(1) Health care providers seeking to receive telecommunications services eligible for universal service support under this subpart shall submit a description of the services requested. Requests shall be signed by the person authorized to order telecommunications services for the health care provider and shall include that person's certification under oath that:

(i) the requester is a public or non-profit entity that falls within one of the seven categories set forth in the definition of health care provider, listed in § 54.601(a);

(ii) the requester is physically located in a rural area, unless the health care provider is requesting services provided under § 54.621;

(iii) if the health care provider is requesting services provided under § 54.621, that the requester cannot obtain toll-free access to an Internet service provider;

(iv) the requested service or services will be used solely for purposes reasonably related to the provision of health care services or instruction that the health care provider is legally authorized to provide under the law in the state in which such health care services or instruction are provided;

(v) the requested service or services will not be sold, resold or transferred in consideration of money or any other thing of value; and

(vi) if the service or services are being purchased as part of an aggregated purchase with other entities or individuals, the full details of any such arrangement, including the

identities of all co-purchasers and the portion of the service or services being purchased by the health care provider.

(2) The Administrator shall post each request for eligible services that it receives from an eligible health care provider on its website designated for this purpose.

(3) After posting a description of services from a health care provider on the website, the Administrator shall send confirmation of the posting to the entity requesting services. That health care provider shall then wait at least 28 days from the date on which its description of services is posted on the website before making commitments with the selected telecommunications carrier(s).

(4) After selecting a telecommunications carrier, the health care provider shall certify to the Administrator that it is selecting the most cost-effective method of providing the requested service or services, where the most cost-effective method of providing a service is defined as the method that costs the least after consideration of the features, quality of transmission, reliability, and other factors that the health care provider deems relevant to choosing a method of providing the required health care services. The health care provider shall submit to the Administrator paper copies of other responses or bids received in response to the request for services.

(5) The confirmation from the Administrator shall include the date after which the requester may sign a contract with its chosen telecommunications carrier(s).

§ 54.605 Determining the urban rate.

(a) If a rural health care provider requests an eligible service to be provided over a distance that is less than or equal to the "standard urban distance," as defined in paragraph (d) of this section, for the state in which it is located, the urban rate for that service shall be a rate no higher than the highest tariffed or publicly-available rate charged to a commercial customer for a similar service provided over the same distance in the nearest large city in the state, calculated as if it were provided between two points within the city.

(b) If a rural health care provider requests an eligible service to be provided over a distance that is greater than the "standard urban distance" for the state in which it is located, the urban rate shall be no higher than the highest tariffed or publicly-available rate charged to a commercial customer for a similar service provided over the standard urban distance in the nearest large city in the state, calculated as if the service were provided between two points within the city.

(c) The "nearest large city" is the city located in the eligible health care provider's state, with a population of at least 50,000, that is nearest to the health care provider's location, measured point to point, from the health care provider's location to the point on that city's jurisdictional boundary closest to the health care provider's location.

(d) The "standard urban distance" for a state is the average of the longest diameters of all cities with a population of 50,000 or more within the state, calculated by the Administrator.

§ 54.607 Determining the rural rate.

(a) The rural rate shall be the average of the rates actually being charged to commercial customers, other than health care providers, for identical or similar services provided by the telecommunications carrier providing the service in the rural area in which the health care provider is located. The rates included in this average shall be for services provided over the same distance as the eligible service. The rates averaged to calculate the rural rate must not include any rates reduced by universal service support mechanisms. The "rural rate" shall be used as described in this subpart to determine the credit or reimbursement due to a telecommunications carrier that provides eligible telecommunications services to eligible health care providers.

(b) If the telecommunications carrier serving the health care provider is not providing any identical or similar services in the rural area, then the rural rate shall be the average of the tariffed and other publicly available rates, not including any rates reduced by universal service programs, charged for the same or similar services in that rural area over the same distance as the eligible service by other carriers. If there are no tariffed or publicly available rates for such services in that rural area, or if the carrier reasonably determines that this method for calculating the rural rate is

unfair, then the carrier shall submit for the state commission's approval, for intrastate rates, or the Commission's approval, for interstate rates, a cost-based rate for the provision of the service in the most economically efficient, reasonably available manner.

(1) The carrier must provide, to the state commission, for intrastate rates, or to the Commission, for interstate rates, a justification of the proposed rural rate, including an itemization of the costs of providing the requested service.

(2) The carrier must provide such information periodically thereafter as required, by the state commission for intrastate rates or the Commission for interstate rates. In doing so, the carrier must take into account anticipated and actual demand for telecommunications services by all customers who will use the facilities over which services are being provided to eligible health care providers.

§ 54.609 Calculating support.

(a) Except with regard to services provided under § 54.621 and subject to the limitations set forth in this subpart, the amount of universal service support for an eligible service provided to a rural health care provider shall be the difference, if any, between the urban rate and the rural rate charged for the service, as defined herein.

(b) Except with regard to services provided under § 54.621, a telecommunications carrier that provides telecommunications service to a rural health care provider participating in an eligible health care consortium must establish the applicable rural rate for the health care provider's portion of the shared telecommunications services, as well as the applicable urban rate. Absent documentation justifying the amount of universal service support requested for health care providers participating in a consortium, the Administrator shall not allow telecommunications carriers to offset, or receive reimbursement for, the amount eligible for universal service support.

§ 54.611 Distributing support.

(a) A telecommunications carrier providing services eligible for support under this subpart to eligible health care providers shall treat the amount eligible for support under this subpart as an offset against the carrier's universal service support obligation for the year in which the costs for providing eligible services were incurred.

(b) If the total amount of support owed to a carrier, as set forth in paragraph (a) of this section, exceeds its universal service obligation, calculated on an annual basis, the carrier may receive a direct reimbursement in the amount of the difference.

(c) Any reimbursement due a carrier shall be made after the offset is credited against that carrier's universal service obligation.

(d) Any reimbursement due a carrier shall be submitted to that carrier no later than the end of the first quarter of the calendar year following the year in which the costs were incurred and the offset against the carrier's universal service obligation was applied.

§ 54.613 Limitations on supported services for rural health care providers.

(a) Upon submitting a bona fide request to a telecommunications carrier, each eligible rural health care provider is entitled to receive the most cost-effective, commercially-available telecommunications service using a bandwidth capacity of 1.544 Mbps, at a rate no higher than the highest urban rate, as defined in this subpart, at a distance not to exceed the distance between the eligible health care provider's site and the farthest point from that site that is on the jurisdictional boundary of the nearest large city, as defined in § 54.605(c).

(b) The rural health care provider may substitute any other service or combination of services with transmission capacities of less than 1.544 Mbps transmitted over the same or a shorter distances, so long as the total annual support amount for all such services combined, calculated as provided in this subpart, does not exceed what the support amount would have been for the service described in paragraph (a) of this section. If the rural health care provider is located in an area where a service using a bandwidth capacity of 1.544 Mbps is not available, then the total annual support amount for

that provider shall not exceed what the support amount would have been under paragraph (a) of this section, calculated using the rural rate for a service of that capacity in another area of the state.

(c) This section shall not affect a rural health care provider's ability to obtain supported services under § 54.621.

§ 54.615 Obtaining services.

(a) *Selecting a provider*. In selecting a telecommunications carrier, a health care provider shall consider all bids submitted and select the most cost-effective alternative.

(b) *Receiving supported rate*. Except with regard to services provided under § 54.621, upon receiving a bona fide request for an eligible service from an eligible health care provider, as set forth in paragraph (c) of this section, a telecommunications carrier shall provide the service at a rate no higher than the urban rate, as defined in § 54.605, subject to the limitations set forth in this subpart.

(c) *Bona fide request.* In order to receive services eligible for universal service support under this subpart, an eligible health care provider must submit a request for services to the telecommunications carrier, signed by an authorized officer of the health care provider, and shall include that person's certification under oath that:

(1) the requester is a public or non-profit entity that falls within one of the seven categories set forth in the definition of health care provider, listed in § 54.601(a);

(2) the requester is physically located in a rural area, unless the health care provider is requesting services provided under § 54.621;

(3) if the health care provider is requesting services provided under § 54.621, that the requester cannot obtain toll-free access to an Internet service provider;

(4) the requested service or services will be used solely for purposes reasonably related to the provision of health care services or instruction that the health care provider is legally authorized to provide under the law in the state in which such health care services or instruction are provided;

(5) the requested service or services will not be sold, resold or transferred in consideration of money or any other thing of value;

(6) if the service or services are being purchased as part of an aggregated purchase with other entities or individuals, the full details of any such arrangement, including the identities of all co-purchasers and the portion of the service or services being purchased by the health care provider; and

(7) the requester is selecting the most cost-effective method of providing the requested service or services, where the most cost-effective method of providing a service is defined as the method that costs the least after consideration of the features, quality of transmission, reliability, and other factors that the health care provider deems relevant to choosing a method of providing the required health care services.

(d) *Annual renewal.* The certification set forth in paragraph (c) of this section shall be renewed annually.

§ 54.617 Resale.

(a) *Prohibition on resale*. Services purchased pursuant to universal service support mechanisms under this subpart shall not be sold, resold, or transferred in consideration for money or any other thing of value.

(b) *Permissible fees*. The prohibition on resale set forth in paragraph (a) of this section shall not prohibit a health care provider from charging normal fees for health care services, including instruction related to such services rendered via telecommunications services purchased under this

subpart.

§ 54.619 Audit program.

(a) *Recordkeeping requirements.* Health care providers shall maintain for their purchases of services supported under this subpart the same kind of procurement records that they maintain for other purchases.

(b) *Production of records.* Health care providers shall produce such records at the request of any auditor appointed by the Administrator or any other state or federal agency with jurisdiction.

(c) *Random audits.* Health care providers shall be subject to random compliance audits to ensure that requesters are complying with the certification requirements set forth in § 54.615(c) and are otherwise eligible to receive universal service support and that rates charged comply with the statute and regulations.

(d) *Annual report.* The Administrator shall use the information obtained under paragraph (a) of this section to evaluate the effects of the regulations adopted in this subpart and shall report its findings to the Commission on the first business day in May of each year.

§ 54.621 Access to advanced telecommunications and information services.

(a) Each eligible health care provider that cannot obtain toll-free access to an Internet service provider shall be entitled to receive the lesser of the toll charges incurred for 30 hours of access per month to an Internet service provider or $180 per month in toll charge credits for toll charges imposed for connecting to an Internet service provider.

(b) Both telecommunications carriers designated as eligible telecommunications carriers pursuant to § 54.201(d) and telecommunications carriers not so designated that provide services described in paragraph (a) of this section shall be eligible for universal service support under this section.

§ 54.623 Cap.

(a) *Amount of the Annual Cap*. The annual cap on federal universal service support for health care providers shall be $400 million per funding year.

(b) *Funding Year*. The funding year for purposes of the health care providers cap shall begin on July 1 and end on June 30.

(c) *Requests*. Funds shall be available to eligible health care providers on a first-come-first-served basis, with requests accepted beginning on the first of February prior to each funding year.

(d) *Annual Filing Requirement.* Health care providers shall file new funding requests for each funding year.

(e) *Long Term Contracts.* If health care providers enter into long term contracts for eligible services, the Administrator shall only commit funds to cover the portion of such a long term contract scheduled to be delivered during the funding year for which universal service support is sought.

Subpart H - Administration

§ 54.701 Administrator of universal service support mechanisms.

(a) A Federal Advisory Committee (Committee) shall recommend a neutral, third-party administrator of the universal service support programs to the Commission within six months of the Committee's first meeting. The Commission shall act upon that recommendation within six months. The Administrator must:

(1) be neutral and impartial;

(2) not advocate specific positions before the Commission in non-universal service administration proceedings related to common carrier issues, except that membership in a

trade association that advocates positions before the Commission will not render it ineligible to serve as the Administrator;

(3) not be an affiliate of any provider of telecommunications services;

(4) not issue a majority of its debt to, nor derive a majority of its revenues from any provider(s) of telecommunications services. This prohibition also applies to any affiliates of the Administrator.

(b) If the Administrator has a Board of Directors that includes members with direct financial interests in entities that contribute to or receive support from the universal service support programs, no more than a third of the Board members may represent any one category (e.g., local exchange carriers, interexchange carriers, wireless carriers, schools, libraries) of contributing carriers or support recipients, and the Board's composition must reflect the broad base of contributors to and recipients of universal service.

(1) An individual does not have a direct financial interest in entities that contribute to or receive support from the universal service support programs if he or she is not an employee of a telecommunications carrier or of a recipient of universal service support programs funds, does not own equity interests in bonds or equity instruments issued by any telecommunications carrier, and does not own mutual funds that specialize in the telecommunications industry. If a mutual fund invests more than 50 percent of its money in telecommunications stocks and bonds, then it specializes in the telecommunications industry.

(2) An individual's ownership interest in entities that contribute to or receive support from the universal service support programs is *de minimis* if in aggregate the individual, spouse, and minor children's impermissible interests do not exceed $5,000.

(c) The Administrator chosen by the Committee shall begin administering the support programs within six months of its appointment. The Administrator's performance shall be reviewed by the Commission after two years. The Administrator shall serve an initial term of five years. At

any time prior to nine months before the end of the Administrator's five-year term, the Commission may re-appoint the Administrator for another term of not more than five years. Otherwise, nine months before the end of the Administrator's term, the Commission will create another Federal Advisory Committee to recommend another neutral, third-party administrator.

(d) The Committee's, Administrator's, and Temporary Administrator's reasonable administrative projected annual costs shall be included within the universal service support programs' projected expenses.

(e) The Administrator and Temporary Administrator shall keep the universal service support program funds separate from all other funds under the control of the Administrator or Temporary Administrator.

(f) The Administrator and Temporary Administrator shall be subject to a yearly audit by an independent accounting firm and may be subject to an additional audit by the Commission, if the Commission so requests.

(1) The Administrator and the Temporary Administrator shall report annually to the Commission an itemization of monthly administrative costs that shall include all expenses, receipts, and payments associated with the administration of the universal service support programs and shall provide the Commission full access to the data collected pursuant to the administration of the universal service support programs.

(2) Pursuant to Section 64.903, the Administrator shall file with the Commission a cost allocation manual (CAM), that describes the accounts and procedures the Administrator will use to allocate the shared costs of administering the universal service support programs and its other operations.

(3) Information based on the Administrator's and Temporary Administrator's reports will be made public at least once a year as part of a Monitoring Report.

(g) The Administrator and Temporary Administrator shall report quarterly to the Commission on the disbursement of universal service support program funds. The Administrator and Temporary Administrator shall keep separate accounts for the amounts of money collected and disbursed for eligible schools and libraries, rural health care providers, low-income consumers, and high cost and insular areas.

(h) The Administrator and Temporary Administrator shall be subject to close-out audits at the end of their terms.

§ 54.703 Contributions.

(a) Entities that provide interstate telecommunications to the public, or to such classes of users as to be effectively available to the public, for a fee will be considered telecommunications carriers providing interstate telecommunications services and must contribute to the universal service support programs. Interstate telecommunications include, but are not limited to:

(1) cellular telephone and paging services;
(2) mobile radio services;
(3) operator services;
(4) personal communications services (PCS);
(5) access to interexchange service;
(6) special access service;
(7) WATS;
(8) toll-free service;
(9) 900 service;
(10) message telephone service (MTS);
(11) private line service;
(12) telex;
(13) telegraph;
(14) video services;
(15) satellite service;

(16) resale of interstate services; and
(17) payphone services.

(b) Every telecommunications carrier that provides interstate telecommunications services, every provider of interstate telecommunications that offers telecommunications for a fee on a non-common carrier basis, and payphone providers that are aggregators shall contribute to the programs for eligible schools, libraries, and health care providers on the basis of its interstate, intrastate, and international end-user telecommunications revenues.

(c) Every telecommunications carrier that provides interstate telecommunications services, every provider of interstate telecommunications that offers telecommunications for a fee on a non-common carrier basis, and payphone providers that are aggregators shall contribute to the programs for high cost, rural and insular areas, and low-income consumers on the basis of its interstate and international end-user telecommunications revenues.

§ 54.705 *De minimis* exemption.

If a contributor's contribution to universal service in any given year is less than $100, that contributor will not be required to submit a contribution or Universal Service Worksheet for that year. If a contributor improperly claims exemption from the contribution requirement, it will subject to the criminal provisions of sections 220(d) and (e) of the Act regarding willful false submissions and will be required to pay the amounts withheld plus interest.

§ 54.707 Audit Controls.

The Administrator shall have authority to audit contributors and carriers reporting data to the administrator. The Administrator shall establish procedures to verify discounts, offsets, and support amounts provided by the universal service support programs, and may suspend or delay discounts, offsets, and support amounts provided to a carrier if the carrier fails to provide adequate verification of discounts, offsets, or support amounts provided upon reasonable request, or if directed by the Commission to do so. The Administrator shall not provide reimbursements, offsets or support

amounts pursuant to Part 36 and § 69.116-.117 of this title, and subparts D, E, and G of this part to a carrier until the carrier has provided to the Administrator a true and correct copy of the decision of a state commission designating that carrier as an eligible telecommunications carrier in accordance with § 54.201.

12. Part 69 of Title 47 of the CFR is amended as follows:

PART 69 -- ACCESS CHARGES

13. The authority citation for part 69 is revised to read as follows:

AUTHORITY: 47 USC Secs. 154(i) and (j), 201, 202, 203, 205, 218, 254, and 403.

14. Section 69.104 is amended by revising paragraphs (j), (k), and (l) to read as follows:

§ 69.104 End user common line.

* * * * *

(j) Until December 31, 1997, the End User Common Line charge for a residential subscriber shall be 50% of the charge specified in § 69.104(c) and (d) if the residential local exchange service rate for such subscribers is reduced by an equivalent amount, *Provided,* That such local exchange service rate reduction is based upon a means test that is subject to verification.

(k) Paragraphs (k)(1)-(2) are effective until December 31, 1997. * * *

(l) Until December 31, 1997, in connection with the filing of access tariffs pursuant to § 69.3(a), telephone companies shall calculate for the association their projected revenue requirements attributable to the operation of § 69.104(j) through (k). The projected amount will be adjusted by the association to reflect the actual lifeline assistance benefits paid in the previous period. If the actual benefits exceeded the projected amount of that period, the differential will be added to the projection

for the ensuing period. If the actual benefits were less than the projected amount for that period, the differential will be subtracted from the projection for the ensuing period. Until December 31, 1997, the association shall so adjust amounts to the Lifeline Assistance revenue requirement, bill and collect such amounts from interexchange carriers pursuant to § 69.117 and distribute the funds to qualifying telephone companies pursuant to § 69.603(d).

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15. Section 69.116 is revised by amending the first sentence as follows:

§ 69.116 Universal service fund.

Effective August 1, 1988 through December 31, 1997: * * *

16. Section 69.117 is amended by revising the first sentence as follows:

§ 69.117 Lifeline assistance.

Effective August 1, 1988 through December 31, 1997: * * *

17. Section 69.203 is amended by revising paragraph (f) and revising the first sentence of paragraph (g) as follows:

§ 69.203 Transitional end user common line charges.

* * * * *

(f) Until December 31, 1997, the End User Common Line charge for a residential subscriber shall be 50% of the charge specified in paragraphs (d) and (e) if the residential local exchange rate for such subscribers is reduced by an equivalent amount, provided that such local exchange service rate reduction is based upon a means test that is subject to verification.

(g) Paragraphs (g)(1)-(2) are effective until December 31, 1997. * * *

18. Section 69.612 is corrected and revised as follows:

§ 69.612 Long Term and transitional support.

A telephone company that does not participate in the association Common Line tariff shall have computed by the association:

(a) *Long Term Support Obligation*.

(1) Beginning July 1, 1994 and until December 31, 1997, the Long Term Support payment obligation of telephone companies that do not participate in the NECA Common Line tariff shall equal the difference between the projected Carrier Common Line revenue requirement of association Common Line tariff participants and the projected revenue recovered by the association Carrier Common Line charge as calculated pursuant to § 69.105(b)(1).

(2) For the period from April 1, 1989 through June 30, 1994, the Long Term Support payment obligation shall be funded by all telephone companies that are not association Common Line tariff participants and do not receive transitional support pursuant to § 69.612(b). The percentage of the total annual Long Term Support requirement paid by each telephone company in this group that is not a Level I or Level II Contributor shall equal the number of its common lines divided by the total number of common lines of all telephone companies paying Long Term Support. The remaining amount of Long Term Support requirement shall be allocated among Level I and Level II Contributors based upon the amount of each Level I and Level II Contributor's 1988 contributions to the association Common Line pool in relation to the total amount of 1988 Common Line pool contributions of all other Level I and Level II Contributors. The association shall inform each telephone company about its mandatory Long Term Support obligations within a reasonable time prior to the filing of each telephone company's annual Common Line tariff revisions or other similar filing ordered by the Commission. Such amounts shall represent a negative net balance due

to the association that it shall bill, collect, and distribute pursuant to § 69.603(e).

(3) Beginning July 1, 1994, and thereafter, the Long Term Support payment obligation shall be funded by each telephone company that files its own Carrier Common Line tariff does not receive transitional support. The percentage of the total annual Long Term Support requirement paid by each of these companies shall equal the number of its common lines divided by the total number of common lines of all telephone companies paying Long Term Support. The association shall inform each telephone company about its Long Term Support obligation within a reasonable time prior to the filing of each telephone company's annual Common Line tariff revisions or other similar filing ordered by the Commission. Such amounts shall represent a negative net balance due to the association that it shall bill, collect, and distribute pursuant to § 69.603(f).

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APPENDIX J
SUMMARY OF COMMENTS IN CC DOCKET NO. 96-45

I. INTRODUCTION

II. EXECUTIVE SUMMARY

III. PRINCIPLES

A. Overview

1. The following is a summary of comments relating to the issue of principles.

B. Comments

2. 1996 Act Principles. Commenters generally support the guiding principles identified under section 254(b), with some commenters stating various preferences for prioritization of those goals.[2340] Others emphasize those goals related to access to services.[2341] No comments were received in opposition to the establishment of these enumerated principles.

3. In addition to the principles enumerated above, numerous comments were filed regarding additional principles that should guide the Commission when addressing universal service

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[2340] *See, e.g.*, ALTS comments at 1; GCI comments at 2; GTE comments at 7; Motorola reply comments at 3.

[2341] *See, e.g.*, John Staurulakis comments at 4 (discussing need for rural consumers to have access to telecommunications services); MFS comments at 3-5 (discussing importance of access to advanced telecommunications and information services in all regions of the Nation); NAD comments at 7-8 (discussing need for access to advanced services by individuals with disabilities); United Church of Christ comments at 1-2 (discussing reasonably comparable access by rural consumers both in terms of quality and timeliness).

issues.[2342] These proposed additional principles are set forth below.

4. Competitive Neutrality. A majority of commenters addressing this issue advocate adopting competitive neutrality as an additional principle to shape policies governing universal service.[2343] A few commenters advocate specific definitions of competitive neutrality that emphasize application of universal service rules and mechanisms in a manner that does not advantage or disadvantage one provider of telecommunications services over another.[2344] Others emphasize competitively neutral contribution, distribution, and determination of eligibility for universal service support.[2345] ALTS contends that the Joint Board's definition of competitive neutrality should be broadened to include the concept of a competitively neutral administrator and that rules and regulations themselves, not just application of the rules, should be competitively neutral.[2346] Commenters also cite congressional intent to promote competition in the advancement of telecommunications services.[2347] Several commenters advocate inclusion of technological neutrality as a concept related to the principle of competitive neutrality.[2348] They contend that the Commission should avoid defining any particular service or technology that must be available and supported by

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[2342] *See* 47 U.S.C. § 254(b)(7) regarding additional principles.

[2343] *See, e.g.*, ALTS comments at 3-5; AT&T comments at 2, 4; GTE comments at 7-8, 11; MCI comments at 1; Nextel comments at 2; Sprint comments at 6-7.

[2344] *See, e.g.*, GTE comments at 12; MFS comments at 2; NCTA comments at 12; SBC comments at 6.

[2345] *See, e.g.*, Bell South comments at 9-11; CompTel comments at 4-6; MCI comments at 1; Washington UTC comments at 1-2; WorldCom comments at 5.

[2346] ALTS comments at 4-5.

[2347] *See, e.g.*, Cox comments at 5-6; GTE comments at 7-8, 11; Motorola reply comments at 16-17.

[2348] *See, e.g.*, MCI comments at 1; NorTel comments at 1-2; Oracle comments at 12-13; PageNet comments at 2; APC reply comments at 4; Motorola reply comments at 16-17.

universal service support mechanisms and allow the marketplace to shape the direction of technology.[2349]

5. Some commenters focus on the effect of a principle of competitive neutrality on rural areas. Evans Tel. contends that Congress adopted "rural safeguard" provisions in the 1996 Act in the form of statutory advantages and protections to rural telephone companies not provided to competitors. These provisions, according to Evans Tel., were designed to protect universal service in areas served by small, rural telephone companies from competition in the absence of such safeguards that could threaten rural service rates and quality standards.[2350] Therefore, Evans Tel. and other commenters assert, competitive neutrality can enter into universal service only as a secondary consideration - subordinate to the specific principles identified in the 1996 Act.[2351] RTC contends that Congress understood that rural conditions require special scrutiny "even where pro-competitive measures are concerned" and that Congress balanced the policies of rural competition and universal service in the 1996 Act.[2352]

6. A few commenters contend that a principle of competitive neutrality is unnecessary or inconsistent with section 254.[2353] Western Alliance asserts that the section 254(b) principles make it clear that universal service is intended to be a safeguard against competitive excesses and market

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[2349] *See, e.g.*, NorTel comments at 2-3; Oracle comments at 13; Motorola reply comments at 17.

[2350] Evans Tel. comments at 12, 14.

[2351] *See* Evans Tel. comments at 12; ITC comments at 3; Minnesota Coalition comments at 3. *See also* RTC comments at 32-33 (contending that giving equal weight to principle of competitive neutrality would fail to meet requirement of section 254(b)(7) that additional principles be "necessary and appropriate for the protection of the public interest" for rural areas).

[2352] RTC comments at 33.

[2353] *See, e.g.*, TCA comments at 2; Western Alliance comments at 4.

failures.[2354] They further assert that, given the express reference to competitive neutrality in section 254(h)(2), the lack of any reference to competitive neutrality in the general provisions of section 254(b) demonstrates a conscious decision by Congress not to include competitive neutrality as a principle.[2355]

7. TCA contends that the concept of competitive neutrality already is embodied in the 1996 Act and, therefore, is not needed as an additional principle.[2356] Wyoming PSC contends that if competitive neutrality permits diminished emphasis on affordable universal service in rural and high cost areas where market forces dictate such a result, then the principle runs against the express policy of the 1996 Act and should not be allowed.[2357]

8. Americans with Disabilities. Some commenters urge the Commission to address specific issues faced by Americans with disabilities pursuant to the provisions of section 254.[2358] NAD contends that, while individuals with disabilities are covered by section 255, reliance upon section 255 to ensure basic access to the public switched network by individuals with disabilities who must purchase specialized customer premises equipment (SCPE) is misplaced.[2359] Specifically, NAD contends that universal service support is needed to fund SCPE for individuals with

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[2354] Western Alliance comments at 10.

[2355] Western Alliance comments at 10-11.

[2356] TCA comments at 2. *See also* Fred Williamson comments at 3.

[2357] Wyoming PSC comments at 4.

[2358] *See, e.g.*, NAD comments at 4-5 (discussing need for parity of TTY calls); United Cerebral Palsy Ass'n comments at 3 (discussing need to broaden principles to include persons with disabilities under universal service).

[2359] NAD comments at 3.

disabilities.[2360] Commenters also contend that individuals with speech disabilities who use Alternative and Augmentive Communications (AAC) pay more for end-user access to telecommunications services than does the general public due to the increased response time required by AAC device users.[2361] Commenters request universal service support to bring toll charges for both text telephone (TTY) and telecommunications relay service users in line with other toll charges based on the longer than average calls associated with the use of these services.[2362]

9. Additional Protection for Specific Groups. Public Advocates suggests as an additional goal that, in each state, carriers should work to achieve the statewide average rate of subscribership among that state's low-income, minority, and limited English-speaking communities.[2363]

10. Schools and Libraries. Some commenters suggest that allowing community-based organizations providing educational, health, and literary services to receive the same full and equal access to advanced services as libraries and schools should be a principle that stems from section 254(b).[2364]

11. Other Suggested Principles. Bar of New York advocates including an additional principle expressly promoting access to interactive services.[2365] GSA recommends that "economic

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[2360] NAD comments at 2. *See also* United Cerebral Palsy Ass'n comments at 5.

[2361] United Cerebral Palsy Ass'n comments at 5-7. *See also* NAD comments at 3-4; Universal Service Alliance comments at 5-7.

[2362] *See, e.g.*, NAD comments 4; United Cerebral Palsy Ass'n comments at 7-8; Universal Service Alliance comments at 6.

[2363] Public Advocates comments at 3.

[2364] Alliance for Community Media comments at 6-9; Public Advocates comments at 4-5.

[2365] Bar of New York comments at 3.

efficiency" be recognized as a principle.[2366] A few commenters also contend that the Commission should adopt a principle of minimizing the growth and overall size of the universal service support mechanisms.[2367]

IV. DEFINITION OF UNIVERSAL SERVICE: WHAT SERVICES TO SUPPORT

A. Overview

12. The following is a summary of the comments on the issue of what services should be included in the definition of universal service under section 254(c)(1).

B. Designated Services

1. Comments

13. General Comments. Catholic Conference agrees with the Joint Board's conclusion that all four criteria enumerated in section 254(c)(1) must be considered, but not necessarily met, before a service may be included within the definition of universal service.[2368] Benton suggests that the Commission adopt a universal service system defined by transport and termination requirements rather than services.[2369] As defined by Benton, transport requirements concerning the "quality and capacity of telephony media" (such as the provision of single-party service or the capability of providing fax/data service at specified speeds), the distribution of those media, and termination requirements mandate that carriers connect with a specified destination on demand (for example,

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[2366] GSA comments at 3.

[2367] *See, e.g.*, Sprint PCS comments at 2-4; APC reply comments at 1; PCIA reply comments at 27.

[2368] Catholic Conference comments at 6.

[2369] Benton comments at 2.

equal access to interexchange carriers).[2370] According to Benton, this approach would permit the Commission to adopt "policies without either specifying or implying specific facilities, architecture, or network topography and the carriers that are traditionally associated with those elements."[2371]

14. Services Proposed in the Recommended Decision. Various commenters concur with the Joint Board's recommended list of services to be supported by universal service support mechanisms.[2372] GSA contends that the services proposed for support by the Joint Board encompass the "minimum group of services that should be available to all consumers."[2373] In contrast, People For asserts that the Joint Board failed to recommend a sufficiently broad definition of universal service that would "fulfill Congress' mandate to ensure full participation in the information age."[2374]

15. Voice Grade Access to the Public Switched Network. Bar of New York asserts that the Joint Board's recommendation that voice grade access occur at approximately 3,500 Hertz will not ensure residential consumers access to interactive services, which, it argues, requires greater bandwidth.[2375] Bar of New York cites the Recommended Decision's conclusion in connection with rural health care providers that services such as video-on-demand, medical imaging, two-way interactive distance learning and high definition television (HDTV) might require bandwidth of 1.544

[2370] Benton comments at 2.

[2371] Benton comments at 2.

[2372] *See, e.g.,* GSA comments at 8-9; ITI comments at 2; Teleport comments at 3; United Utilities comments at 2; APC reply comments at 5; Business Software Alliance reply comments at 8.

[2373] GSA comments at 8-9.

[2374] People For comments at 3-4.

[2375] Bar of New York comments at 10.

Mbps.[2376] Thus, Bar of New York argues that the benefits of broadband interactive services warrant support for increased bandwidth.[2377] MFS asserts that the Commission should assure universal access to advanced services, including the capability to support data transmissions of at least 1 Mbps, by adopting the network standards established by Congress for carriers that borrow from the Rural Utilities Service (RUS) under the Rural Electrification Restructuring Act of 1993 (RELRA).[2378]

16. Local Usage. Ameritech, arguing that states should support local usage through their own universal service mechanisms, contends that a variable usage component should not be funded through federal support mechanisms.[2379] According to Ameritech, if the Commission includes a variable usage component within the definition of voice grade access, states would be encouraged to designate a high level of local usage for support in their respective jurisdictions in order to maximize the benefits their constituents receive from federal universal service support mechanisms.[2380] In contrast, Ohio PUC maintains that support for local usage is essential to realizing the full benefits of voice grade access and further contends that a local usage component meets the four criteria set forth in section 254(c)(1).[2381] Ohio PUC advocates that the states, rather than the Commission, be responsible for establishing minimum local usage levels in their respective jurisdictions.[2382]

17. United Utilities argues against the establishment of a local usage sensitive support

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[2376] Bar of New York comments at 9-10 (*citing* Recommended Decision, 12 FCC Rcd at 419-421).

[2377] Bar of New York comments at 8-10.

[2378] MFS comments at 5-11.

[2379] Ameritech comments at 5.

[2380] Ameritech comments at 5.

[2381] Ohio PUC reply comments at 2.

[2382] Ohio PUC reply comments at 2.

mechanism because, it contends, such a mechanism would require carriers that do not offer measured service to eliminate flat, non-usage based rates and require those carriers to purchase new switches and software and implement new billing systems.[2383] United Utilities contends that, if the Commission elects to limit the amount of support for local usage, the Commission should apply such a limitation only to non-rural carriers that use measured service and "exempt [the rural carrier] from having to limit the amount of local usage that customers receive in order to be able to receive the full amount of universal service funding that the carrier is otherwise entitled to receive."[2384]

18. DTMF Signaling. NENA favors including DTMF signaling among the services to be supported because, NENA argues, DTMF signaling "is an important means of speeding calls where seconds saved may save lives and property in emergencies."[2385]

19. Access to Emergency Services. NENA concurs with the Joint Board's recommendation to include access to emergency services, including access to 911, among the supported services.[2386] TCA contends that by adopting the Joint Board's recommendation to exclude access to enhanced 911 (E911) service from the list of supported services, the Commission would be giving wireless providers a competitive advantage over providers that can or must offer this service.[2387] Similarly, Western Alliance opposes what it characterizes as the Joint Board's failure to recognize the potential benefit provided by E911 in favor of ensuring that potential wireless competitors could receive universal service support.[2388] TCA favors supporting access to E911

[2383] United Utilities comments at 6.

[2384] United Utilities comments at 6.

[2385] NENA comments at 1-2.

[2386] NENA comments at 1.

[2387] TCA comments at 3.

[2388] Western Alliance comments at 12.

service, as well as E911 service itself, when it is requested by the local community.[2389]

20. Access to Directory Assistance and White Pages Directories. USTA urges the Commission to include white pages directories within the definition of universal service because, it argues, white pages directories meet the statutory criteria for inclusion and serve the public interest by making this information available to consumers.[2390] West Virginia Consumer Advocate "strongly disagrees" with the Joint Board's decision against recommending that white pages directories be supported because it contends that the Joint Board's recommendation to exclude white pages directories is inconsistent with its recommendation to support access to directory assistance.[2391] West Virginia Consumer Advocate asserts that, like access to directory assistance, white pages directories are a "fundamentally important offering" that, while not a "telecommunications service" *per se*, are "necessary for consumers to access telecommunications and information services."[2392] Oregon PUC argues that, if the Commission decides to exclude white pages listings from the list of supported services, the Commission should require carriers to include all of their subscribers in their directory assistance databases.[2393] In contrast, Georgia PSC asserts that white pages directories do not come within the Act's definition of "telecommunications services" and, therefore, supports the Joint Board's recommendation to exclude white pages directories from the list of supported services.[2394]

[2389] TCA comments at 3.

[2390] USTA comments at 31.

[2391] West Virginia Consumer Advocate comments at 2. *See also* Ohio PUC comments at 5; CWA reply comments at 4.

[2392] West Virginia Consumer Advocate comments at 3 (*citing* Recommended Decision, 12 FCC Rcd at 122-123).

[2393] Oregon PUC comments at 2-3.

[2394] Georgia PSC reply comments at 8.

21. Access to Operator Service. CWA argues that access to operator service should include "initial contact with a live operator," which, it contends, is "indispensable for users in public health or safety emergencies."[2395]

22. Access to Interexchange Service. USTA supports the Joint Board's recommendation that the Commission include access to interexchange service within the definition of universal service.[2396] GCI opposes providing universal service support for access to interexchange service on the grounds that interexchange service is competitive and is not currently subsidized.[2397]

23. Equal Access to Interexchange Service. Ameritech argues that the principle of competitive neutrality requires that, in areas where the incumbent LEC has the obligation to offer equal access to interexchange service providers, other carriers receiving universal service support in that area also should be obligated to provide equal access.[2398] Noting that incumbent LECs have incurred costs associated with upgrading their networks to offer equal access and that end-user customers have come to expect this service, GVNW and TCA contend that the principle of competitive neutrality mandates that competitors be required to offer equal access.[2399] GVNW urges the Commission to include equal access in the definition of universal service and establish an implementation deadline by which all eligible carriers must provide such access.[2400] Western Alliance maintains that the exclusion of equal access from the list of core services would ensure that wireless carriers qualify for universal service support at the expense of rural consumers who, as a

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[2395] CWA reply comments at 4.

[2396] USTA comments at 31.

[2397] GCI reply comments at 10-11.

[2398] Ameritech comments at 6. *See also* ITC comments at 10; Ohio PUC reply comments at 3.

[2399] GVNW comments at 4-5; TCA comments at 3. *See also* WorldCom comments at 10.

[2400] GVNW comments at 5.

result of such a determination, may be denied the substantial benefits of equal access.[2401] WorldCom asserts that the Joint Board's recommendation not to support equal access is inconsistent with the principle of competitive neutrality in that it favors one discrete class of carriers over all other carriers that seek to provide equal access as part of universal service.[2402] WorldCom recommends that the Commission either: 1) support equal access only to the extent that eligible carriers are able to provide it; or 2) support equal access "across the board" but permit CMRS providers to file for waivers from this requirement.[2403]

24. CTIA and Vanguard argue that wireless carriers should not be required to provide services or functionalities, such as equal access, that they are not currently able or required to provide.[2404] Similarly, PCIA contends that the Joint Board properly recognized that, under section 332(c)(8), CMRS providers are not "required to provide equal access to common carriers for the provision of toll services."[2405] Vanguard asserts that including equal access within the list of supported services would be inconsistent with Congress's intent to maximize consumer choice because doing so would limit the ability of CMRS providers to offer universal service in areas where they are best equipped to provide service.[2406] PCIA asserts that because sections 332(c)(8) and 254 were enacted together as part of the 1996 Act, the Commission must interpret these sections under

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[2401] Western Alliance comments at 11-12.

[2402] WorldCom comments at 10.

[2403] WorldCom comments at 10-11.

[2404] CTIA reply comments at 10; Vanguard reply comments at 4.

[2405] PCIA reply comments at 30 (*citing* Recommended Decision, 12 FCC Rcd at 122 n.194). *See also* Vanguard reply comments at 5.

[2406] Vanguard reply comments at 5.

principles of statutory construction so that neither is nullified.[2407] By exempting CMRS providers from equal access obligations while creating a universal service program consistent with section 254, PCIA asserts that the Joint Board's recommendation represents a permissible construction of the two provisions.

25. Advanced Services. APC and Business Software Alliance concur with the Joint Board's recommendation that the Commission not support advanced services such as ISDN, end-to-end digital service and call waiting on the theory that the Commission must carefully choose the services designated for support in order to limit the overall size of the universal service support mechanisms.[2408] In contrast, ITC argues that the statutory principle of "access to advanced services" is missing from the proposed definition of supported services.[2409] ITC contends that supporting access to advanced services for schools and libraries, but not for carriers serving consumers in high cost areas, discriminates against "family and economic institutions of society" in favor of educational institutions.[2410] People For contends that the statutory principle promoting "access to advanced telecommunications and information services" provides authority for the Commission to support services and functionalities such as modern network facilities, Internet access availability, call tracing, and 900-number blocking services.[2411] Bar of New York contends that, if access charge reform does not result in a system that permits differential pricing for voice and data calls, universal service support might be necessary to ensure access to interactive services.[2412] Urban League advocates including fax and modem capability, the latter of which will ensure all Americans have the

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[2407] PCIA reply comments at 31.

[2408] APC comments at 5; Business Software Alliance comments at 8.

[2409] ITC comments at 10.

[2410] ITC comments at 10; ITC reply comments at 7.

[2411] People For comments at 4.

[2412] Bar of New York comments at 13.

ability to use electronic mail, in the definition of universal service.[2413]

26. Iowa Utilities Board states that "advanced telecommunications and information services" should include Internet service and that the Commission should establish incentives to encourage access to Internet facilities for communities in rural areas.[2414] Arguing that information service providers merely provide conduit, and not content, People For opposes the Joint Board's conclusion that Internet access is not a "telecommunications service."[2415] Accordingly, People For urges the Commission to reject the Joint Board's recommendation and include Internet service within the definition of universal service.[2416] In the alternative, People For requests that the Commission define Internet service as a "telecommunications service" not presently designated for universal service support.[2417]

27. Taking issue with the view expressed by People For, NCTA contends that Internet access is not a telecommunications service.[2418] NCTA asserts that the Joint Board correctly recognized that information and enhanced services provided over the facilities of common carriers are treated, for regulatory purposes, as separate and distinct from the basic telecommunications capacity used to transmit those services.[2419] Whereas a common carrier's basic transmission capacity is a telecommunications service that must be made available to any information service provider under

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[2413] Urban League comments at 9.

[2414] Iowa Utilities Board comments at 8-9.

[2415] People For comments at 5 (*citing* S. Rep. No. 23, 104th Cong., 1st Sess. 18 (1995)).

[2416] People For comments at 5-6.

[2417] People For comments at 6.

[2418] NCTA reply comments at 3-4.

[2419] NCTA reply comments at 4.

tariff, NCTA maintains, a common carrier's Internet access service is not a telecommunications service.

28. Other Services. Catholic Conference advocates supporting voice messaging services for individuals without residences and contends that this service meets each of the criteria enumerated in section 254(c)(1).[2420] CWA recommends that the Commission add "prompt access to repair bureaus and business offices" to the list of supported services.[2421]

29. Universal Service Alliance urges the Commission to reject the Joint Board's recommendation to exclude consideration of disabilities-related issues and to provide universal service support to make specialized customer premises equipment, such as TTYs, telephone signaling devices, telebraille machines and volume control telephones, accessible and affordable to consumers with disabilities in all states.[2422] In addition, Universal Service Alliance favors supporting toll charges associated with TTY and relay service calls.[2423] Universal Service Alliance argues that, contrary to the Joint Board's representation, the Commission's proceeding to implement section 255 is narrowly focused on making telecommunications equipment usable by consumers with disabilities and does not encompass numerous issues raised by the section 254 mandate that all persons have access to basic and advanced telecommunications services.[2424]

30. Offering Supported Services on a Stand-Alone Basis. GTE suggests that eligible

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[2420] Catholic Conference comments at 5-6. The issue of voice messaging services for individuals without residences is discussed in section VIII *infra*.

[2421] CWA comments at 4.

[2422] Universal Service Alliance comments at 6; Universal Service Alliance reply comments at 4-5.

[2423] Universal Service Alliance comments at 6; Universal Service Alliance reply comments at 5. *See also* Consumer Action reply comments at 5.

[2424] Universal Service Alliance comments at 7.

carriers should be required to offer the services designated for support under section 254(c)(1) on a "stand-alone" basis and at an "affordable" price, and Ameritech, TCA and CWA concur with this proposal.[2425] GTE states that this requirement would prevent carriers from "cherry picking" select customers by offering the designated services only in conjunction with other, higher priced services.[2426]

31. Treatment of Wireless Providers. TCA generally contends that wireless providers receive preferential treatment in the Joint Board's recommended definition of universal service.[2427] CTIA urges the Commission to reject the arguments of TCA and others because, CTIA argues, by advocating an expansive list of services required of eligible telecommunications providers, these parties seek to prevent wireless providers from becoming eligible for universal service support.[2428]

C. Feasibility of Providing Designated Services

1. Comments

32. Limitations on Carriers' Ability to Provide Designated Services. CTIA asserts that it is unfair to require wireless providers to offer E911 service at present in light of the Commission's recent decision in CC Docket 94-102 to give wireless carriers a five-year grace period in which to

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[2425] GTE comments at 16; GTE reply comments at 14-16. *Accord* Ameritech comments at 9 n.15; Ameritech comments, app. A at 14-15 ("it would be virtually impossible to police the marketing plans of multiple providers . . . to ensure that information on competitive offerings is not selectively targeted . . ."); TCA comments at 3-4; CWA reply comments at 9-10.

[2426] GTE comments at 16.

[2427] TCA comments at 2. *See also* Western Alliance comments at 11-12.

[2428] CTIA reply comments at 9.

complete the technical upgrades necessary to achieve E911 capability.[2429] According to CTIA, requiring eligible carriers to provide E911 service would not only exclude wireless carriers from becoming eligible for support in the near term, but would also undermine the Commission's decision in CC Docket 94-102.[2430]

33. Transition Period for Conversion to Single-Party Service. GTE argues that additional state commission action should not be necessary to authorize universal service support for party-line customers when a state regulatory agency has previously established a transition period for offering single-line capability that extends beyond January 1, 1998, the recommended date for implementation of the new high cost support mechanisms.[2431] In addition, GTE, referring to the Joint Board's recommendation that "carriers may offer consumers the choice of multi-party service in addition to single-party service and remain eligible for universal service support," urges the Commission to clarify that carriers will remain eligible for universal service support not only for single-line customers, but also for each party-line customer that is offered single-line service, but chooses to subscribe to party-line service.[2432] GTE maintains that carriers should not bear the burden of initiating a proceeding before state commissions when customers choose party-line service.[2433]

D. Extent of Universal Service Support

1. Comments

34. Limiting Support for Services Carried on a Single Residential Connection. There

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[2429] CTIA reply comments at 9.

[2430] CTIA reply comments at 9.

[2431] GTE comments at 84.

[2432] GTE comments at 83.

[2433] GTE comments at 84.

is considerable record support for the Joint Board's recommendation not to support additional residential connections.[2434] PageMart argues that supporting the provision of multiple lines is a benefit that extends "far beyond the universal service mandate to connect the greatest number of residences to the telephone system."[2435] Cox argues that second connections do not promote universal service goals because they are not necessary to ensure access to the telephone network.[2436] In addition, Cox contends that second lines should not be supported because they are a "significant source of profits to telephone companies."[2437] According to Cox, it costs little to provide a second line because conventional loops have the capacity to provide two lines when they are installed, but telephone companies generally charge the same amount for a second line as they do for the first.[2438] Sprint asserts that giving ILECs flexibility in pricing second lines will eliminate the need for universal service support for second lines.[2439]

35. Ad Hoc, arguing against support for additional lines, contends that there is no evidence that the number of consumers who subscribe to secondary lines constitute a "substantial majority"

[2434] *See, e.g.*, Ameritech comments at 6; APT comments at 5; California PUC comments at 2; Cox Communications comments at 4; Maryland PSC comments at 9; PageMart comments at 6; Motorola reply comments at 9; PageNet reply comments at 7-8; PCIA reply comments at 25.

[2435] PageMart reply comments at 4.

[2436] Cox comments at 4. *See also* Time Warner reply comments at 18.

[2437] Cox comments at 4-5 (*citing* "Pacific Telesis Earnings Grow in Third Quarter," Pacific Telesis Press Release, Oct. 17, 1996, for the proposition that additional lines increased 105 percent over the previous year).

[2438] Cox comments at 4.

[2439] Sprint reply comments at 6.

pursuant to section 254(c)(1)(B).[2440] Further, Ad Hoc argues, even if a "substantial majority" of consumers subscribes to a second line, such additional lines should not be supported because they are not "essential to education, public health, or public safety" consistent with section 254(c)(1)(A).[2441] According to Ad Hoc, secondary lines have never been a core universal service and excluding them from support is consistent with past and present universal service policy.[2442] In addition, Ad Hoc characterizes as "speculative" arguments that carriers have difficulty differentiating between primary and secondary lines.[2443] According to Ad Hoc, billing systems are presently capable of distinguishing between primary and secondary residential lines or can be modified to add this capability.[2444] Time Warner proposes that the universal service administrator and carriers work together to address administrative issues.[2445] Specifically, Time Warner contends, without further elaboration, that assigning one customer voucher "per household in an eligible area" would eliminate the need for the universal service administrator to track "a customer's migration from one carrier to another."[2446] Time Warner argues that, under this approach, "it would not matter which of multiple carriers serving the high-cost customer was providing the primary line and which was providing the second line."[2447]

[2440] Ad Hoc reply comments at 3 (approximately 15 percent of households with telephones had additional lines as of the end of 1995 according to FCC Industry Analysis Division, *Percentage Additional Residential Lines for Households with Telephone Service*, 1996).

[2441] Ad Hoc reply comments at 3.

[2442] Ad Hoc reply comments at 4.

[2443] Ad Hoc reply comments at 3-4.

[2444] Ad Hoc reply comments at 4.

[2445] Time Warner reply comments at 19.

[2446] Time Warner reply comments at 19.

[2447] Time Warner reply comments at 19.

36. Sprint and Teleport suggest that the Commission use a customer certification method to identify primary lines that are eligible for high cost support.[2448] Specifically, Teleport suggests a plan wherein customers should designate one carrier as their primary local exchange carrier.[2449] Under this plan, support would be provided to the carrier designated by the customer for the provision of the designated services carried on one connection.[2450] Teleport further suggests that customer information already maintained by local exchange and interexchange carriers in the Customer Account Record Exchange ("CARE") database be used in conjunction with information relating to high cost areas included in the cost models to create a Universal Service Database ("USDB").[2451] According to Teleport, the CARE database, which includes the service address for every customer in a local exchange carrier's service territory, is automated and readily available.[2452] Teleport suggests that the fund administrator check each carrier's request for funding for a particular address against the records in the USDB to determine the validity of the request.[2453] Using this approach, multiple support requests for one address or requests for addresses not in the USDB would be denied pending further investigation by the administrator, with state commission and FCC intervention required only in disputed cases.[2454] Teleport recommends that the universal service administrator or another entity designated by the Commission conduct periodic, random audits to

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[2448] Sprint reply comments at 5; Teleport reply comments at 4. *See also* GTE comments at 81; Time Warner reply comments at 18.

[2449] Letter from Paul E. Cain, Teleport, to Pamela Gallant, Common Carrier Bureau, dated February 18, 1997 (Teleport February 18 *ex parte*).

[2450] Teleport February 18 *ex parte* at 2.

[2451] Teleport February 18 *ex parte* at 2.

[2452] Teleport February 18 *ex parte* at 2.

[2453] Teleport February 18 *ex parte* at 2.

[2454] Teleport February 18 *ex parte* at 1.

discourage fraud.[2455] Teleport urges the Commission not to countenance the misuse of universal service support simply because it may be impossible to identify and punish every instance of fraud.[2456]

37. Similarly, MFS proposes a plan wherein customers who are served by more than one carrier designate one carrier as their primary local exchange carrier for universal service purposes.[2457] Under the MFS proposal, the fund administrator would enter nine-digit zip codes into a national database.[2458] The database would identify the zip codes corresponding to high cost areas and could be designed to match high cost census blocks or wire centers with the appropriate nine-digit zip codes.[2459] The database would also include the customer's last name and street address in those instances in which the nine-digit zip code is insufficient to identify a specific household.[2460] The universal service support administrator could provide carriers with a listing of end users residing in high cost areas, which carriers could match against their billing database, or the carriers could submit claims for support by providing the administrator with an electronic listing of their customers by

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[2455] Teleport reply comments at 4.

[2456] Teleport reply comments at 4.

[2457] Letter from Mark Sievers, MFS, to William F. Caton dated February 27, 1997 (MFS February 27 *ex parte*) at 2.

[2458] MFS February 27 *ex parte* at 2.

[2459] MFS February 27 *ex parte* at 2.

[2460] MFS notes that nine-digit zip codes identify small geographic areas. Specifically, nine-digit zip codes are organized as follows: (1) the first digit identifies one of nine national zip code areas; (2) the second digit identifies a state within the area; (3) the third digit identifies areas within a state; (4) the fourth and fifth digits identify the local delivery area within the areas; (5) the sixth and seventh digits identify a "sector," which may be several blocks, a group of streets, a high-building or a small geographic area; and (6) the last two digits identify a "segment" within the sector, which may be a single household, one floor in an office building, or one side of a street between two cross-streets. MFS February 27 *ex parte* at 3.

nine-digit zip code drawn from their billing records.[2461] The fund administrator would use the customer's nine-digit zip code to determine whether the carrier is eligible to receive high cost support and would use the customer's name to identify more precisely the connection for which the carrier is requesting support.[2462] According to MFS, carriers already use zip codes for billing purposes and have an incentive to retain customer zip codes because the US Postal Service offers postage discounts to bulk-billers that use zip codes.[2463] MFS also argues that a system using zip codes would be automated and auditable.[2464]

38. Conversely, several commenters oppose the Joint Board's recommendation not to provide universal service support beyond that provided for designated services carried on a single residential connection.[2465] Some parties, including some rural LECs, assert that the cost of providing additional lines will increase if these lines are not supported.[2466] In addition, Minnesota Coalition argues that eliminating support for additional residential lines would discourage LECs from installing sufficient facilities to accommodate second lines.[2467] Similarly, GVNW argues that if, in the future,

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[2461] MFS February 27 *ex parte* at 2.

[2462] MFS February 27 *ex parte* at 2.

[2463] MFS February 27 *ex parte* at 3.

[2464] MFS February 27 *ex parte* at 4.

[2465] *See, e.g.,* California SBA comments at 10; Minnesota Coalition comments at 20; PacTel comments at 19; Western Alliance comments at 15; Ex Parte Submission by the Office of Advocacy of the U.S. Small Business Administration on the Joint Board's Recommended Decision (filed April 4, 1997) at 12 (SBA April 4 *ex parte*).

[2466] *See, e.g.,* California SBA comments at 11; John Staurulakis comments at 21; Minnesota Coalition comments at 24; Western Alliance comments at 15.

[2467] Minnesota Coalition comments at 24. *See also* California SBA comments at 12; RT Communications comments at 10-11; Tularosa Basin Tel. comments at 9.

the definition of universal service is modified to include Internet access over separate facilities, eligible carriers will not have adequately invested in the facilities necessary to provide this service.[2468] California SBA argues that, under the Joint Board's recommendation, there will be no economic incentive for new local service providers to build new facilities to compete with incumbent LECs because support levels will be "unrealistically low."[2469] Western Alliance, for example, estimates that one of its members will have to triple the rate currently charged for a second residential connection if universal service support is not available for that connection.[2470] Western Alliance contends that, if that same member's state commission permitted it to rebalance rates in order to make up for the loss of support for additional residential connections, the member would be required to increase all of its local service rates by 61 percent.[2471] Such "revenue dislocation," Western Alliance contends, might amount to an unconstitutional taking.[2472]

39. Evans contends that, unlike small rural LECs, large, geographically diversified RBOCs may be able to cross-subsidize rates for second lines within cost areas with revenues generated in the RBOC's low cost service areas in order to keep rates low for second lines.[2473] Staurulakis argues that incumbent LECs would be disadvantaged because customers will have an incentive to purchase second lines from competitive LECs, which could purchase bundled discounted services from the incumbent LEC and resell this service to customers as second lines.[2474] TDS argues that most loop costs are incurred when installing the first line and that the incremental cost of additional connections

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[2468] GVNW comments at 7.

[2469] California SBA comments at 11.

[2470] Western Alliance comments at 16.

[2471] Western Alliance comments at 17.

[2472] Western Alliance comments at 17.

[2473] Evans Tel. Co. comments at 6.

[2474] John Staurulakis comments at 20.

is less than half the cost of installing the first connection.[2475] Accordingly, TDS asserts, the Joint Board's recommendation to limit support to single connections will not reduce per-line support costs in proportion to the number of second or additional lines for which support would be eliminated under the Joint Board's proposal.[2476] Rather, TDS contends, incumbent LECs will be encouraged to overprice additional lines to prevent the loss of support that should be directed almost entirely to the first line.[2477] GVNW contends that, "at a minimum, costs associated with multiple lines should be incrementally identified while fully attributing joint and common costs associated with multiple lines to the first line."[2478]

40. Roseville Tel. Co. argues that if multi-line business and residential lines are deemed ineligible for support, the proxy model should be adjusted to exclude the costs of providing services over these additional lines.[2479] Roseville Tel. Co. contends that restricting support to single connections would require the establishment of separate revenue benchmarks for determining the amount of support an eligible carrier should receive under a proxy model because, it argues, multi-line businesses and residences with second lines would have significantly different toll usage levels than other business and residential customers.[2480] According to Roseville Tel. Co., ILECs do not have access to customer toll billing records to estimate access revenues by customer class because IXCs have assumed the billing function for most large toll users, and the special traffic studies

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[2475] TDS comments at 25.

[2476] TDS comments at 25.

[2477] TDS comments at 25.

[2478] GVNW comments at 7.

[2479] Roseville Tel. Co. comments at 8.

[2480] Roseville Tel. Co. comments at 6.

needed to determine these estimates would be costly and unreliable.[2481]

41. Some commenters argue that a system that limits support to single residential connections would be difficult to administer and bill."[2482] SBC contends that ILECs will be unable to determine whether a particular dwelling has been divided or whether more than one household occupies a dwelling, and, thus, would have difficulty determining which residences have multiple connections.[2483] John Staurulakis contends that it would be especially difficult to make such a determination when individuals residing in group homes have separate telephone lines.[2484] Some parties question how the primary line will be determined if a customer obtains two lines, each from a different carrier.[2485] According to PacTel, if the first line obtained in a multi-connection residence is always considered the single connection eligible for support, then the incumbent provider will have a competitive advantage.[2486] Conversely, TCA argues that the supported line should be the one that is installed first.[2487] SBC characterizes the Joint Board's suggestion that carriers use subscriber billing information as an "unworkable" method for determining the number of connections to a location, and argues that such an approach will become "even more unworkable" as competition develops.[2488]

[2481] Roseville Tel. Co. comments at 7.

[2482] *See, e.g.,* NRPT comments at 7; RTC comments at 20; TDS comments at 28 n.20; USTA comments at 30.

[2483] SBC comments at 38. *See also* Evans Tel. Co. comments at 5; GTE comments at 77.

[2484] John Staurulakis comments at 21. *See also* TCA comments at 5.

[2485] GVNW comments at 6; NRPT comments at 7; PacTel comments at 19; Roseville Tel. Co. comments at 7; TCA comments at 5; USTA comments at 30.

[2486] PacTel comments at 19.

[2487] TCA comments at 5.

[2488] SBC comments at 39. *See also* USTA comments at 30.

According to GTE, service providers have no means, other than querying the customer, to determine whether a request for service involves a primary or secondary connection.[2489]

42. Western Alliance opposes limiting support to single residential lines because, it contends, additional residential connections meet each of the criteria set forth in section 254(c)(1).[2490] California SBA argues that the proposal to limit support to single residential connections violates the principles set forth in sections 254(b)(1)-(3) by failing to provide access to affordable telecommunications services in high cost areas.[2491] GTE and TCA assert that the recommended limitation will have the practical effect of impeding access to and use of information services, in conflict with section 254(b)(2) because families will be discouraged from adding second lines to access on-line information services.[2492] Evans Tel. Co. and NRPT argue that eliminating support for additional residential lines will violate section 254(b)(3) because rural consumers will pay far more for secondary connections than will urban subscribers.[2493] Similarly, Lufkin-Conroe and RTC maintain that limiting universal service support to single lines will deny rural residents access to services and rates that are reasonably comparable to those of their urban counterparts.[2494] TDS argues that the statute requires rural services and rates to be reasonably comparable to those in urban areas and, therefore, does not authorize regulators to decide that merely some portion of rural rates

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[2489] GTE comments at 81.

[2490] Western Alliance comments at 16. *See also* Lufkin-Conroe reply comments at 10-11.

[2491] California SBA comments at 10-11.

[2492] GTE comments at 78-79; TCA comments at 6.

[2493] Evans Tel. Co. comments at 4; NRPT comments at 7. *See also* GTE comments at 79; ITC reply comments at 6; Lufkin-Conroe reply comments at 10.

[2494] Lufkin-Conroe reply comments at 10; RTC reply comments at 25.

and services should be comparable to urban rates and services.[2495] ITC contends that rural consumers, especially students, have a greater need than their urban counterparts for second lines that enable access to on-line information services at home because they generally live far from schools and libraries.[2496] U S West asserts that the recommended approach would be neither specific nor predictable, contrary to the principle set forth in section 254(b)(5).[2497]

43. SBC argues that, if the Commission elects not to support additional lines, as recommended by the Joint Board, the Commission must "preempt all pricing constraints on non-supported telephone exchange service unless upon implementation, the commission in a particular state has established an intrastate fund to support those federally unsupported services."[2498] Similarly, USTA contends that if carriers cannot receive support for second lines, incumbent LECs should be given pricing flexibility to ensure that the costs of those lines can be fully recovered.[2499] According to U S West, second and multiple lines should be deregulated in high cost areas if they are not supported.[2500] TDS argues that if the long-established practice of averaging local rates for all lines were changed and additional lines were priced at cost, the result would be to increase the rates for all primary residential lines -- the lines that incur the most cost -- unless additional support is available for initial connections.[2501] Ohio PUC proposes that, if funding is extended to second residential lines, then the Commission require as a pre-condition for universal service eligibility that carriers provide

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[2495] TDS reply comments at 3.

[2496] ITC reply comments at 6.

[2497] US West comments at 27.

[2498] SBC comments at 38. *See also* GTE comments at 81-82.

[2499] USTA comments at 30. *See also* TDS comments at 29; Sprint reply comments at 6.

[2500] US West comments at 26.

[2501] TDS reply comments at 3, 10.

the second line at the same recurring and non-recurring rate to end users and offer promotions on a non-discriminatory basis for both the primary and secondary lines.[2502]

44. Limiting Support for Services Provided to the Primary Residence. Various parties support the Joint Board's recommendation that eligible carriers receive support for providing designated services to a residential subscriber's primary residence, but not to second or vacation homes.[2503] California DCA favors this proposed limitation because of the reduced amount of support it anticipates that this approach will require.[2504] Ameritech contends there are "no good public policy reasons" for funding a second line to a subscriber's summer residence.[2505] APT asserts that supporting service to a second residence is inconsistent with section 254(c)(1)(A) because it is not "essential to education, public health, or public safety."[2506] Taking the Joint Board's proposal a step further, California DCA questions how the Commission can justify supporting even one connection to the residence of consumers who can afford a second or vacation home.[2507]

45. MFS also concurs with the recommendation to limit support to one connection to a subscriber's primary residence and proposes a plan wherein customers who are served by more than one carrier designate one specific carrier as their primary local exchange carrier for universal service

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[2502] Ohio PUC reply comments at 7.

[2503] *See, e.g.,* Ameritech comments at 6; APT comments at 5; PageMart comments at 6; WorldCom comments at 11; Motorola reply comments at 9; PCIA reply comments at 25.

[2504] California DCA comments at 22-23.

[2505] Ameritech comments at 6.

[2506] APT reply comments at 5.

[2507] California DCA comments at 22-23.

purposes.[2508] As discussed in paragraph 70, *supra*, MFS proposes a plan wherein the fund administrator would cross-reference the nine-digit zip codes of subscribers with census blocks or wire centers located in high cost areas.[2509] MFS contends that using the nine-digit zip code for a customer's billing address, rather than for the service address, will minimize the likelihood that support would be provided for second or vacation homes because, MFS argues, customers who maintain more than one residence are likely to have their bills sent to their primary residence.[2510]

46. Teleport urges the Commission to adopt a system that allows consumers to certify that a supported service is being provided only to their primary residence.[2511] Teleport further recommends that the fund administrator or some other entity conduct periodic audits to discourage fraud.[2512]

47. Other commenters oppose limiting the number of residences for which a carrier may receive support.[2513] Several parties contend that identifying a subscriber's "primary" residence is administratively unworkable.[2514] RTC states that any mechanism implemented to determine the number of homes owned by each subscriber would be so complex that it would fail a cost/benefit

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[2508] MFS February 27 *ex parte* at 2.

[2509] MFS February 27 *ex parte* at 2.

[2510] MFS February 27 *ex parte* at 3.

[2511] Teleport reply comments at 4.

[2512] Teleport reply comments at 4.

[2513] *See, e.g.,* GTE comments at 79-81; PacTel comments at 19; RTC comments at 20; SBC comments at 37.

[2514] *See, e.g.,* GVNW comments at 7; Minnesota Coalition comments at 24; PacTel comments at 19; SBC comments at 37; Western Alliance comments at 18; Virginia's Rural Tel. Co. comments at 2; ITC reply comments at 8; Lufkin-Conroe reply comments at 11.

analysis.[2515] Texas PUC and U S West argue that the administrative difficulties associated with the Joint Board's recommendation outweigh any arguments in favor of limiting support.[2516] Some parties question how ILECs would be able to determine whether their customers own an additional residence in another carrier's service area, or own residences in more than one spouse's name.[2517] Western Alliance argues that the administrative costs involved in determining whether a subscriber's residence is "primary" will reduce the carrier's net universal service support amount.[2518] RTC, arguing that resort areas are often occupied by permanent residents, contends that MFS' proposal to use nine-digit zip codes would deny support to families that need it.[2519] RTC contends that the Recommended Decision "illegally introduces means testing into the high cost support mechanism."[2520] Some parties raise privacy concerns because, they argue, an investigation into consumers' property ownership would be required to limit support to the primary residence.[2521] Similarly, Minnesota Coalition argues that rural LECs are not in a position to monitor the living habits of their customers.[2522] Western Alliance and U S West urge the Commission, if it adopts the Joint Board's recommendation, to allow carriers to rely on a customer's self certification that a specified line is serving a primary or

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[2515] RTC comments at 21.

[2516] Texas PUC comments at 3; US West comments at 25.

[2517] GVNW comments at 6; RTC comments at 21-22; Virginia's Rural Tel. Co. comments at 2; Western Alliance comments at 18-19.

[2518] Western Alliance comments at 20.

[2519] RTC reply comments at 28.

[2520] RTC comments at 20-21.

[2521] Evans Tel. Co. comments at 5; GTE comments at 81; John Staurulakis comments at 21; RTC comments at 20-21; Lufkin-Conroe reply comments at 11.

[2522] Minnesota Coalition comments at 24. *See also* Lufkin-Conroe reply comments at 11.

second residence.[2523] GTE contends that consumers, particularly those who understand the system, will be motivated to declare a vacation home in a high cost area as the consumer's primary residence.[2524]

48. GTE opposes the Joint Board's recommendation that ILECs use billing information to identify a consumer's primary residence. GTE argues that billing information does not answer "dozens of other questions" such as whether more than one household shares a dwelling and whether another carrier is already providing service to a customer's "primary" residence in a different state.[2525] GTE further states that the Commission must address certain "real-life, practical" considerations such as whether individuals may self-certify to their status and whether carriers must retain records for audit purposes.[2526]

49. Minnesota Coalition argues that eliminating support for second homes will impose a disproportionate burden on rural ILECs because these ILECs serve many vacation and second homes.[2527] Minnesota Coalition asserts that the primary residence limitation would violate the statutory requirement that support be "predictable" because support for rural LECs would fluctuate when subscribers "change their residential status or move away from a residence previously occupied."[2528] The requirement that support be "sufficient" would also be violated, Minnesota Coalition contends, because eliminating support for residences that were previously eligible for

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[2523] US West comments at 27; Western Alliance comments at 20.

[2524] GTE comments at 78, 82.

[2525] GTE comments at 80, 81. *See also* Lufkin-Conroe reply comments at 11.

[2526] GTE comments at 80-81.

[2527] Minnesota Coalition comments at 22.

[2528] Minnesota Coalition comments at 23.

support would reduce a carrier's level of support without a corresponding reduction in expenses.[2529] Similarly, Western Alliance and Evans Tel. Co. argue that an ILEC would lose compensation for costs incurred when it installs a new line to provide service to a primary residence if the residence is subsequently sold to a subscriber who uses it as a second residence.[2530] Silver Star Tel. Co. notes that ILECs are required to serve second and vacation homes as part of their COLR obligations and thus, it argues, they should be eligible to receive support for serving additional residences.[2531] U S West contends that the COLR obligation should be changed if the Joint Board's recommendation is adopted.[2532] SBC argues that limiting support to primary residences would be confiscatory because it would deny incumbent LECs a reasonable opportunity to recover the costs of providing service.[2533] USTA argues that if carriers cannot receive support for serving second residences, incumbent LECs must be given pricing flexibility to ensure that the costs of these lines are fully recovered.[2534]

50. Evans Tel. Co. contends that the Joint Board's proposal violates section 254(b)(3) because consumers who own second residences in high cost areas will be subject to higher rates for second lines than those who own second residences in low cost areas.[2535] Evans Tel. Co. asserts such a result constitutes a violation of the principle of "reasonably comparable" services and rates for urban and rural consumers.[2536] Silver Star Tel. Co. argues that subscribers require the same access to

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[2529] Minnesota Coalition comments at 23. *See also* Western Alliance comments at 15.

[2530] Evans Tel. Co. comments at 5; Western Alliance comments at 18.

[2531] Silver Star Tel. Co. comments at 4.

[2532] US West comments at 25.

[2533] SBC comments at 38.

[2534] USTA comments at 30.

[2535] Evans Tel. Co. comments at 4-5.

[2536] Evans Tel. Co. comments at 4-5.

health, emergency, and community services when they inhabit a second residence as they do when they are at their primary residence.[2537] Lufkin-Conroe contends that, because second or vacation homes may be occupied for only part of the year, their owners may elect to forego telephone service if rates increase significantly.[2538] The absence of telephone service, Lufkin-Conroe argues, could result in delayed access to emergency services with the potential resulting loss of life or property.[2539]

51. Supporting Designated Services Carried to Single-Connection Businesses. As a preliminary matter, Georgia PSC urges the Commission to clarify the distinction between the terms "single-connection" and "single-line."[2540] According to Georgia PSC, the category of single-connection businesses is more limited than that of single-line businesses because a business may have several "single-line" connections.[2541] In general, several commenters agree that support should be provided for designated services provided to single-connection businesses.[2542]

52. Several commenters, however, advocating a more restrictive approach, take issue with the Joint Board's recommendation that universal service support be available even for single-connection businesses.[2543] Ameritech argues that supporting business services constitutes a

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[2537] Silver Star Tel. Co. comments at 4.

[2538] Lufkin-Conroe reply comments at 11.

[2539] Lufkin-Conroe reply comments at 11.

[2540] Georgia PSC reply comments at 9.

[2541] Georgia PSC reply comments at 9-10.

[2542] Cox Communications comments at 4; WorldCom comments at 11; NTIA reply comments at 6.

[2543] AirTouch comments at 21; Ameritech comments at 7; Kentucky PSC comments at 4; LCI comments at 5; Maryland PSC comments at 9; Sprint comments at 14; Teleport comments at 3-4; ACTA reply comments at 3; APT reply comments at 5; Teleport reply comments at 4.

substantial policy shift and would "inevitably and significantly" increase the size of the support mechanisms.[2544] According to Ameritech and LCI, telephone service should be considered a cost of starting and operating a business that should not be supported by federal universal service mechanisms.[2545] Ameritech argues that small businesses already get a "quasi-subsidy" in the form of a tax deduction, which is not available to residential consumers, and receive assistance from mechanisms such as Small Business Administration loans and other state and federal programs.[2546]

53. Ameritech also argues that there is nothing in the legislative history of the 1996 Act that indicates that Congress intended to use section 254 to subsidize business development.[2547] NTIA and BANX contend that supporting business connections would be inconsistent with section 254(c)(1)(B) that states that, in defining universal service, the Commission should consider the extent to which telecommunications services "have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers."[2548] APT contends that the Joint Board failed to demonstrate that services to single-connection businesses are "essential" so as to warrant their support pursuant to section 254(c)(1).[2549] LCI argues that when Congress believed that special circumstances required support to be extended to non-residential subscribers -- such as schools, libraries and health care providers -- it expressly provided for such support.[2550]

[2544] Ameritech comments at 7. *See also* Maryland PSC comments at 9; Kentucky PSC comments at 4; BANX reply comments at 17.

[2545] Ameritech comments at 7; LCI comments at 6. *See also* BANX reply comments at 17; GCI reply comments at 13.

[2546] Ameritech comments at 7. *See also* AirTouch comments at 22; PageMart reply comments at 4; Teleport reply comments at 4-5.

[2547] Ameritech comments at 7. *See also* Maryland PSC comments at 9; Teleport comments at 3-4.

[2548] BANX reply comments at 17; NTIA reply comments at 6 n.13.

[2549] APT reply comments at 6. *See also* GCI reply comments at 13.

[2550] LCI comments at 6.

54. According to Teleport, there is no evidence to suggest that businesses are unable to pay cost-based rates for their services.[2551] Similarly, Sprint contends that there is no information in the record to confirm the hypothesis that small businesses will forego local telephone service in high cost areas unless such service is supported.[2552] ACTA contends that a general rule providing for support to single-line businesses is overly broad. Thus, ACTA proposes an alternative method pursuant to which the demonstrated need of a business for support determines whether a business single-connection line will be supported.[2553] Maryland PSC asserts that any business customer could benefit from universal service by obtaining single lines from multiple carriers or attaching a PBX to a single business line.[2554] Maryland PSC favors allowing the competitive marketplace to control costs for businesses.[2555] California PUC argues that in California, unlike residential measured rate service, the measured business rate does not include any calling allowance, so all local calls made on business lines result in revenue for the LEC.[2556] Accordingly, California PUC opposes the Joint Board's recommendation to support businesses with single connections.

55. In contrast, several parties urge the Commission to support services provided to businesses with multiple connections and oppose the Joint Board's recommendation to limit support to services provided to businesses with single connections.[2557] Many commenters argue that such a

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[2551] Teleport comments at 3.

[2552] Sprint comments at 14. *See also* AirTouch reply comments at 32; BANX reply comments at 17.

[2553] ACTA reply comments at 3.

[2554] Maryland PSC comments at 9.

[2555] Maryland PSC comments at 9-10. *See also* Teleport comments at 4.

[2556] California PUC reply comments at 3.

[2557] *See, e.g.,* GVNW comments at 7; Iowa UB comments at 5; Minnesota Coalition comments at 25; Roseville Tel. Co. comments at 6; RTC comments at 18; SBA comments at 4-8; Western Alliance comments at 22; California SBA reply comments at 2.

limitation would harm rural economies.[2558] For example, Lufkin-Conroe argues that the cost of telephone service is a factor that directly influences whether a telemarketing firm or other communications-intensive business will locate or remain in a rural community.[2559] In addition, SBA reports that, in response to a recent poll, 3.6 percent of rural businesses indicated that they would relocate or discontinue their operations if their telephone service rates increased by $10.00 per month and nearly 20 percent indicated that they would relocate or discontinue their operations if telephone service rates increased by $25.00 per month.[2560] SBA suggests that increases of these proportions are possible as a result of the Joint Board's recommendation to deny support for services provided to businesses with multiple connection. Some commenters insist that absent federal support, carriers will be required to increase rates for businesses with multiple connections.[2561] In addition, Minnesota Coalition argues that ILEC investments that were made when a business had only a single line would lose support when a second line is added.[2562] Roseville Tel. Co. contends that a system that limits support to businesses with single connections would be administratively difficult to administer, requiring complex and costly studies of billing records.[2563] Minnesota Coalition asserts that, under the Joint Board's proposal, business customers with multiple connections would be encouraged to mischaracterize themselves as having only single-connections.[2564]

[2558] *See, e.g.,* California SBA comments at 13; Evans Tel. Co. comments at 7; GVNW comments at 7; Iowa UB comments at 5; Roseville Tel. Co. comments at 9; RTC comments at 19; SBA comments at 18; Western Alliance comments at 20-22.

[2559] Lufkin-Conroe reply comments at 13.

[2560] SBA comments at 17-18 (*citing* OPATSCO, *Keeping Rural America Connected* at 6-14). *See also* California SBA reply comments at 2; RTC reply comments at 27.

[2561] California SBA comments at 13; Minnesota Coalition comments at 25; SBA comments at 14.

[2562] Minnesota Coalition comments at 25.

[2563] Roseville Tel. Co. comments at 6-7.

[2564] Minnesota Coalition comments at 25.

56. SBA argues that without support, rates charged to businesses with multiple connections will not be "affordable" for rural businesses, an outcome inconsistent with section 254(b)(1).[2565] In addition, SBA contends that the Joint Board's proposal to limit support to businesses with single connections is inconsistent with promotion of access to advanced telecommunications services, a principle found in section 254(b)(2), because the proposal creates a disincentive for rural businesses with single connections to add connections to accommodate fax lines or modems.[2566] According to Evans Tel. Co., it is not clear whether Congress intended business customers to be considered "consumers" for purposes of section 254(b)(3), but that the provisions of sections 254(b)(1) and (2) clearly apply to businesses.[2567] RTC and SBA contend that businesses with multiple connections should be considered "consumers" for which services and rates should be "reasonably comparable" in urban and rural areas, a principle found in section 254(b)(3).[2568] SBA contends that the Recommended Decision imposes a distinction among classes of "consumers" where none is warranted and none was intended by Congress.[2569] SBA contends that the legislative history of section 254 indicates that some members of Congress intended universal service support to be available for small businesses.[2570] RTC argues that all business lines in high cost areas should be supported because Congress recognized the differences between business and residential lines when it

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[2565] SBA comments at 15-16.

[2566] SBA comments at 19. *But see* Georgia PSC reply comments at 9 (arguing that SBA and other parties that oppose limiting support to businesses with single connections do not consider economic factors such as lower land costs, rents, and wages that benefit rural businesses).

[2567] Evans Tel. Co. comments at 6.

[2568] RTC comments at 18; SBA comments at 4-6, 13. *See also* CNMI comments at 27; Harris comments at 7.

[2569] SBA comments at 4.

[2570] SBA comments at 5 (*citing* statements in the Congressional Record by Senators Pressler, Burns, Conrad and Snowe at 142 Cong. Rec. S687 (1996), 142 Cong. Rec. S700 (1996), 142 Cong. Rec. S703 (1996), and 142 Cong. Rec. S708 (1996), respectively).

chose not to limit toll rate averaging to residential service.[2571]

57. Western Alliance argues that most rural businesses with multiple lines are small businesses that use additional lines to record messages, send facsimiles or use on-line services.[2572] TDS states that "few businesses are able to get by with only a single connection in the current information-laden business environment."[2573] SBA, noting that businesses with multiple connections include city halls, police stations, churches, school boards, and other public bodies, asserts that rural businesses with multiple lines share the same need for access to health, safety, and employment services as residential subscribers do.[2574] SBA proposes that carriers receive universal service support for all connections provided to these institutional users.[2575] SBA also contends that significant telephone rate increases are likely to be as cost-prohibitive for businesses with many lines as they would be for businesses with only one.[2576] Evans Tel. Co. suggests that the Commission expand upon the Joint Board's recommendation by supporting services provided to businesses with no more than five connections.[2577]

58. A few parties propose alternatives to the Joint Board's recommendation regarding support for businesses with single connections. California SBA recommends that businesses located

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[2571] RTC comments at 19 (*citing Joint Explanatory Statement* at 129 and 132). *See also* TDS comments at 27-28.

[2572] Western Alliance comments at 22. *See also* Evans Tel. Co. comments at 6.

[2573] TDS comments at 29.

[2574] SBA comments at 7-8.

[2575] SBA April 4 *ex parte* at 13.

[2576] SBA comments at 8.

[2577] Evans Tel. Co. comments at 7.

in high cost areas that employ fewer than 100 employees and earn less than $10 million in gross annual revenues "be eligible for universal service support for all business lines."[2578] California SBA recommends that businesses should be required to certify under penalty of perjury that they meet these criteria "before they are eligible for support."[2579] In addition, the state Joint Board members propose that the Commission adopt the three-year transition period recommended by the Joint Board, during which high cost support for rural telephone companies would extend to all of a carrier's working lines. In addition, SBA proposes that carriers serving businesses with $5.0 million or less in annual gross receipts receive universal service support for an unlimited number of connections.[2580] In addition, SBA recommends that carriers serving all other businesses receive support for up to five connections for those businesses to ensure that business connections used for fax machines, computer modems and credit card and check approval verification are supported.[2581] SBA also suggests that, if support to multiple-connection businesses is reduced, the dollar amount of support a carrier would lose per line should be capped and additional universal service support should available to make up the difference between the cap amount and the previous amount of support the carrier received.[2582] The state Joint Board members further propose that the ongoing cooperative state-Commission review of the forward-looking cost methodologies also include a review of whether support should be limited to residential and single connection businesses for rural carriers.[2583]

59. Level of Support for Business Connections. CNMI, Interior, and TCA argue that the

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[2578] Letter from Betty Jo Toccoli, California SBA, to Hon. Sharon L. Nelson, Washington Utilities and Transportation Commission dated March 10, 1997 (California SBA March 10 *ex parte*) at 2.

[2579] California SBA March 10 *ex parte* at 2.

[2580] SBA April 4 *ex parte* at 11.

[2581] SBA April 4 *ex parte* at 11.

[2582] Letter from Jere W. Glover , SBA, to Chm. Reed E. Hundt dated April 27, 1997.

[2583] State Member's Report on the Use of Cost Proxy Models, March 26, 1997 at 3.

amount of support provided should be the same whether a connection serves a business or residential customer.[2584] SBA and CNMI argue that the Joint Board's rationale for supporting businesses with single connections, i.e., that they have been treated similarly in the past, warrants making support for businesses with single connections match the support for primary connections to residences.[2585] In addition, CNMI argues that providing a reduced amount of universal service support for services provided to businesses with only one line would permit business rates to remain disproportionately high, substantially increase the costs of small, start-up businesses and, thereby, discourage entrepreneurship.[2586] SBA opposes the Joint Board's suggestion that, as competition develops, it may be unnecessary to provide any support for businesses with a single connection in the future, stating that small businesses are vulnerable to rate increases and have a limited ability to pass on increased costs to their customers.[2587]

60. United Utilities disagrees with the Joint Board's conclusion that services provided to businesses with a single connection should be supported at a reduced rate because business rates are higher than residential rates.[2588] Business rates are higher, United Utilities argues, because there are implicit subsidies built into these rates that help keep residential rates low.[2589] According to United Utilities, these implicit subsidies will be eliminated when "competition and the unbundling of rates make support flows explicit" and, thus, the Joint Board should not have recommended reduced

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[2584] CNMI comments at 27; TCA comments at 5; Interior reply comments at 2.

[2585] CNMI comments at 28 (*citing* Recommended Decision, 12 FCC Rcd at 133-134); SBA comments at 10-11 (*citing* Recommended Decision, 12 FCC Rcd at 133-134).

[2586] CNMI comments at 28.

[2587] SBA comments at 11-12 (*citing* Recommended Decision, 12 FCC Rcd at 134). *See also* California SBA reply comments at 3.

[2588] United Utilities comments at 5 (*citing* Recommended Decision, 12 FCC Rcd at 134).

[2589] United Utilities comments at 6.

support for business connections based on the fact that business rates are currently higher than residential rates.[2590] Conversely, Texas PUC agrees with the Joint Board's recommendation that businesses with a single line should be supported at a reduced rate.[2591]

E. Quality of Service

1. Comments

61. Federal Role. CWA contends that the Commission should establish federal performance-based service quality standards on which all telecommunications providers must report and for which they are accountable.[2592] According to CWA, the Joint Board's recommendation that "states may adopt and enforce service quality standards" does not ensure the "mandate" of section 254(b)(1) that "quality services should be available at just, reasonable, and affordable rates."[2593] Relying on data compiled by NARUC, CWA maintains that many states do not have quality standards and those that do have standards do not necessarily have comprehensive standards.[2594] CWA suggests that the Commission establish a special task force or delegate the responsibility of developing comprehensive service quality standards to the Network Reliability Council.[2595]

[2590] United Utilities comments at 6-7.

[2591] Texas PUC comments at 3.

[2592] CWA reply comments at 6.

[2593] CWA comments at 5.

[2594] CWA reply comments at 5 (*citing* NARUC's *1992 Telephone Service Quality Standards,* which indicates that 25 states had no service standards on installation, 16 states had no service standards on call completion and business office, repair bureau, directory assistance, and toll operator answer time, 27 states had no technical standards on transmission, and 17 states had no standards on trouble reports and clearing time).

[2595] CWA reply comments at 6.

Moreover, CWA urges the Commission to require all carriers that receive universal service support to meet federal service quality standards in each of the four calendar quarters preceding the receipt of such support. CWA would deny support to carriers that fail to meet this threshold and require those carriers to pay a penalty to the universal service administrator that would be used to support universal service.[2596]

62. State Roles. A few parties suggest that the Commission permit states to implement carrier performance standards.[2597] For example, California DCA argues that while the nation as a whole may need federal mandates to foster competition and achieve universal service goals, the states are well-equipped to implement the details of those policies.[2598] Ohio PUC agrees with the Joint Board's recommendation that states submit service quality data to the Commission, but urges the Commission to determine the type of data it would expect state commissions to provide.[2599] CWA argues that, if it relies on state commissions to monitor service quality, the Commission should require states to impose on competitive LECs the same quality standards they impose on incumbent LECs .[2600]

63. Quality of Service Reporting Requirements. North Dakota PSC contends that information pertaining to service quality should be made public in order to enable comparisons

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[2596] CWA reply comments at 7.

[2597] *See, e.g.,* California DCA comments at 19; Maryland PSC comments at 8; National Black Coalition comments at att. 1; Ohio PUC comments at 6; WorldCom comments at 11.

[2598] California DCA comments at 19.

[2599] Ohio PUC comments at 6.

[2600] CWA reply comments at 7-8 (*citing* the comments of SBA filed in response to Public Notice of November 18, 1996 at 21).

between the performance of different telecommunications carriers.[2601] According to North Dakota PSC, providing consumers with easy access to publicly available data on the performance of various carriers could spur carriers to compete for customers on the basis of service quality.[2602] Further, North Dakota PSC contends that the Commission should collect quality of service data in addition to that already submitted through mechanisms such as ARMIS because only one LEC in North Dakota is required to file ARMIS data and state law exempts telephone companies serving fewer than 8000 lines from quality service oversight by the North Dakota PSC.[2603] Moreover, North Dakota PSC maintains that there is no industry organization in North Dakota that collects and publishes service quality data.[2604]

F. Reviewing the Definition of Universal Service

1. Comments

64. In General. GVNW argues that, if anticipated revenues are not "sufficient," carriers will not invest in advanced services because they will not expect to recover costs, including a reasonable profit.[2605] Accordingly, GVNW argues that if, in the future, the definition of universal service is modified to include additional services, those carriers that have not invested in advanced services will no longer qualify to receive support because they will be unable to provide all of the

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[2601] North Dakota PSC comments at 1. *See also* CWA reply comments at 8.

[2602] North Dakota PSC comments at 1.

[2603] North Dakota PSC comments at 2 (arguing that US West is the only LEC that is required to submit ARMIS data).

[2604] North Dakota PSC comments at 2.

[2605] GVNW comments at 5.

newly designated services.[2606]

65. Periodic Reassessment. Some commenters suggest that the definition of universal service should be revised periodically.[2607] According to CNMI, periodic revisions to the definition are appropriate because of the pace and scope of change in the telecommunications market and the provision in section 254(c) that describes the definition of universal service as "an evolving level of telecommunications services."[2608] A few parties concur with the Joint Board's recommendation to convene a Joint Board no later than January 1, 2001 to revisit the definition of universal service.[2609]

66. In contrast, People For contends that "periodically" means more than one review after four years.[2610] Instead, People For urges a biennial review which, it argues, is necessary to keep universal service policies current.[2611] Using the growth of Internet deployment in the last four years as an example, People For asserts that the definition of universal service should be reviewed every two years.[2612] Illinois CC asserts that the Commission should revisit the definition of universal service pursuant to section 254(c)(1) after the Joint Board has evaluated an alternate definition of services to be supported and the costs associated with supporting those services.[2613]

[2606] GVNW comments at 5.

[2607] CNMI comments at 37; GVNW comments at 5; NetAction comments at 4; Ohio PUC comments at 6.

[2608] CNMI comments at 37.

[2609] North Dakota PSC comments at 2; Texas PUC comments at 4; WorldCom comments at 11.

[2610] People For comments at 7.

[2611] People For comments at 7.

[2612] People For comments at 7-8.

[2613] Illinois CC comments at 10.

V. AFFORDABILITY

A. Overview

67. The following is a summary of the comments related to the issue of affordability.

B. Affordability

1. Comments

68. In General. Several parties express concern regarding the relationship between expanding the level of universal service funding, and the affordability of rates for telecommunications consumers who, they argue, ultimately must pay for an expanded funding obligation.[2614] These parties contend that if universal service support is not carefully targeted and overall funding levels are not appropriately circumscribed, then telephone service will become unaffordable for increasing numbers of subscribers.[2615] Citizens Utilities, while conditionally accepting the Joint Board's general conclusion that current rates are affordable, argues that the Commission must consider whether rates will remain affordable in the competitive environment, as well as the potential impact of rate increases on telecommunications services subscribers.[2616] Similarly, Puerto Rico Tel. Co. asserts that in order to fulfill the statutory goal of "just, reasonable and affordable" rates, universal service mechanisms must mitigate the effect of any rate increases to prevent the loss of subscribers.[2617] According to Puerto Rico Tel. Co., Congress specifically directed

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[2614] *See, e.g.,* PCIA comments at 7; Sprint comments at 2-3; Motorola reply comments at 9-10.

[2615] *See, e.g.,* AirTouch comments at 3-4 (citing Commissioner Chong's concern that policy makers "need to carefully consider the impact on all consumers before [they] expand the scope of funding obligations." Recommended Decision, Separate Statement of Commissioner Chong at 6); PCIA comments at 7; Sprint comments at 2-3; Motorola reply comments at 9-10.

[2616] Citizens Utilities comments at 20.

[2617] Puerto Rico Tel. Co. comments at 10-11.

the Joint Board and Commission to "ensure that universal service is achieved" because, it argues, the combined effect of new regulations in the areas of universal service, interconnection pricing, and access charge reform "is likely to place unavoidable upward pressure on consumer rates."[2618]

69. Factors Affecting Affordability. Several parties support the Joint Board's general finding that the definition of affordability must take into account both rate levels and non-rate factors.[2619] With respect to specific factors affecting affordability, numerous commenters support the Joint Board's inclusion of local calling area size or local calling scope among the factors that must be considered in determining affordability.[2620] Minnesota Coalition argues that the prices rural consumers pay for extensions of local calling scope, such as Extended Area Service, should be factored into a determination of affordability.[2621] A few parties argue that, in determining rate affordability, the Commission should consider whether consumers have the ability to contact their "community of interest," i.e., hospitals, schools and other essential services, by placing local calls.[2622]

70. In addition, several parties favor considering income levels when assessing rate affordability.[2623] People For contends that the Commission should establish a formula based on a fixed or progressively increasing percentage of disposable income that would guide the states in

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[2618] Puerto Rico Tel. Co. comments at 8.

[2619] *See, e.g.,* Bell Atlantic comments at 16; CNMI comments at 35; Governor of Guam comments at 10 (factors other than "the absolute level of rates" affect affordability); People For comments at 8.

[2620] *See, e.g.,* Bell Atlantic comments at 16; CNMI comments at 35; Governor of Guam comments at 9; Minnesota Coalition comments at 10; People For comments at 8; Vermont PSB comments at 13.

[2621] Minnesota Coalition comments at 11.

[2622] People For comments at 8-9; Vermont comments at 14. *See also* United Utilities comments at 4.

[2623] Bell Atlantic comments at 16; CNMI comments at 35; Governor of Guam comments at 9; Minnesota Coalition comments at 10; People For comments at 9-10.

determining whether rates are affordable.[2624] According to People For, this approach would be equitable because, it argues, consumers with the lowest income levels are least able to afford telecommunications services.[2625] Minnesota Coalition supports the Joint Board's decision not to recommend the adoption of a national median level of income for purposes of assessing affordability because, it argues, such a standard would tend to "overestimate the price at which service is affordable when applied to a service area having an income level that is significantly below the national median."[2626] Consistent with the Recommended Decision, some parties also favor consideration of the cost of living,[2627] population density,[2628] and other socioeconomic factors[2629] among the factors that affect affordability.

71. Affordability of Current Rates. Bell Atlantic contends that the existing nationwide subscribership level is high and stable, and, thus, indicates that current rates are affordable.[2630] In contrast, Governor of Guam argues that the Commission should conclude that where existing rates are not affordable or reasonably comparable to urban rates, such as in Guam, rates in such areas can be supported by universal service support mechanisms.[2631]

72. Link Between Subscribership and Affordability. Various parties agree with the Joint

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[2624] People For comments at 9.

[2625] People For comments at 9.

[2626] Minnesota Coalition comments at 12.

[2627] Bell Atlantic comments at 16; CNMI comments at 35; Minnesota Coalition comments at 10.

[2628] Bell Atlantic comments at 16; Governor of Guam comments at 9.

[2629] CNMI comments at 35.

[2630] Bell Atlantic comments at 2.

[2631] Governor of Guam comments at 10.

Board's finding that a correlation exists between affordability and subscribership levels.[2632] People For, however, urges against basing any definition of affordability solely on subscribership levels.[2633] According to People For, a high subscribership level does not reveal whether the average family is spending a disproportionate amount of its disposable income on telecommunications services.[2634] People For urges the Commission to consider income levels in conjunction with subscribership levels in determining affordability.[2635]

73. Puerto Rico Tel. Co., stating that its subscribership has not yet reached an acceptable level, argues that the Joint Board's proposal that the Commission work with states that have declining subscribership levels ignores the fact that certain regions currently have a low subscribership level.[2636] Puerto Rico Tel. Co. suggests that "if the subscribership level in an eligible carrier's service area is more than five percentage points below the national average," then the local rate should be deemed presumptively not affordable.[2637]

74. State and Federal Roles in Ensuring Affordability. Bell Atlantic supports the recommendation that states exercise primary responsibility for determining the affordability of rates within their respective jurisdictions.[2638] Minnesota Coalition favors the Joint Board's decision not to

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[2632] CNMI comments at 35; Washington UTC comments at 11; Interior reply comments at 2; Puerto Rico Tel. Co. reply comments at 13.

[2633] People For comments at 9.

[2634] People For comments at 9.

[2635] People For comments at 9.

[2636] Puerto Rico Tel. Co. comments at 17-18.

[2637] Puerto Rico Tel. Co. comments at 27. *See also* Puerto Rico Tel. Co. reply comments at 13.

[2638] Bell Atlantic comments at 16. *See also* South Carolina comments at 14.

recommend the establishment of a nationwide affordable rate and argues that such a general rate would fail to consider the impact of local characteristics on affordability.[2639] Some parties concur with the Joint Board's conclusion that state commissions have the ability, knowledge, and expertise to measure and evaluate the factors affecting affordability.[2640] Washington UTC also agrees with the Joint Board's recommendation that the Commission work together with states to determine the cause of a decrease in a state's subscribership level and the implications for affordability in that state.[2641] People For argues that declining income levels, and not just declining subscribership levels, should trigger Commission review of affordability in a given state.[2642] Bell Atlantic argues that only if subscribership rates drop by a "statistically significant amount over a period of time," and the state asks for federal help, should the Commission offer to work with the state to determine and remedy the problem.[2643]

75. Measuring Level of Support Based on Affordability or Subscribership Levels. Puerto Rico Tel. Co. maintains that the Joint Board has failed to propose how a determination at the state level that rates are not affordable will be addressed by federal universal service mechanisms.[2644] Puerto Rico Tel. Co. argues that merely "identifying" whether rates are affordable does nothing to ensure that rates are affordable.[2645] Puerto Rico Tel. Co. suggests that the Commission use affordability, as measured by subscribership levels, to determine the level of support payments

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[2639] Minnesota Coalition comments at 12.

[2640] Bell Atlantic comments at 16; South Carolina comments at 14; Washington UTC comments at 11.

[2641] Washington UTC comments at 11. *See also* Bell Atlantic comments at 16.

[2642] People For comments at 10.

[2643] Bell Atlantic comments at 16.

[2644] Puerto Rico Tel. Co. comments at 17.

[2645] Puerto Rico Tel. Co. comments at 17.

available to carriers serving areas where rates are not affordable.[2646] Interior likewise urges the Commission to provide universal service support for rates that are not affordable or reasonably comparable.[2647] MFS, arguing generally in favor of retaining current levels of high cost support, states that increases in total high cost support should occur only when there is a decline in subscribership or when there is a substantial change in a factor affecting affordability.[2648]

VI. Carriers Eligible for Universal Service Support

A. Overview

76. The following is a summary of the comments relating to the issues of: Eligible Telecommunications Carriers, Service Areas, and Unserved Areas.

B. Eligible Telecommunications Carriers

1. Comments

a. Eligibility Criteria

77. Adoption of Section 214(e)(1) Criteria. A broad cross-section of commenters supports the Joint Board's recommendation that the Commission adopt the criteria in section 214(e)(1) as the rules governing eligibility.[2649] CNMI asserts that the Joint Board correctly determined that section

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[2646] Puerto Rico Tel. Co. comments at 18.

[2647] Interior reply comments at 2. *See also* Governor of Guam comments at 10.

[2648] MFS comments at 15.

[2649] Ameritech comments at 8; California PUC comments at 9; CNMI comments at 39; CompTel comments at 13; GCI comments at 4; Maryland PSC at 8-9; Sprint comments at 20 (but also arguing that further elaboration is necessary regarding compensation for resellers and providers of unbundled network elements);

214(e) prevents carriers from offering differential rates or cream-skimming.[2650] CompTel states that section 214(e) contains neutral, objective criteria.[2651] SBC notes that the Joint Board's recommendation that the Commission adopt the criteria in section 214(e) as the sole criteria for eligibility is inconsistent with its recommendation that all eligible carriers must offer Lifeline service.[2652]

78. Statutory Construction of Section 214(e). CompTel, WorldCom, AT&T, and GCI assert that the states and the Commission are precluded from adopting eligibility requirements that exceed those contained in section 214(e).[2653] Two states and two incumbent LECs disagree and urge the Commission to clarify that states may impose equitable, competitively-neutral conditions on carriers wishing to become eligible for support for federal and state universal service funds.[2654] GTE

Texas PUC comments at 5; TCA comments at 3; WorldCom comments at 14; AT&T reply comments at 13-14; CPI reply comments at 12. *See also* MFS reply comments at 14; PCIA reply comments at 29.

[2650] CNMI comments at 40.

[2651] CompTel comments at 13.

[2652] SBC comments at 19. *See also* GTE reply comments at 10-11 (arguing that Joint Board implicitly assumes Commission has authority to impose additional criteria beyond those in section 214(e) in recommending that eligible carriers be required to provide Lifeline).

[2653] CompTel comments at 13 (adopting additional criteria would be contrary to section 214(e)(1) "which lists the criteria upon which a carrier '*shall be eligible* . . . .'" (commenter's emphasis)); WorldCom comments at 14; AT&T reply comments at 14 (asserting that "[s]uch obligations go beyond the statute and would constitute a competitive barrier to entry"); GCI reply comments at 2-3. *See also* GCI reply comments at 3 (stating GCI is willing to provide service in all of a non-contiguous study area of a rural LEC, as long as it must comply solely with section 214(e)(1)(A) criteria).

[2654] California PUC comments at 9-10 (stating that it has already imposed COLR obligations upon eligible carriers because otherwise service to customers in high cost areas in California would be jeopardized); Texas PUC comments at 5; SBC comments at 19, 21 (favoring quality and affordability requirements); GTE reply

asserts that the use of the phrases "a carrier that receives such support" and "any such support . . ." in section 254(e) instead of the phrase "such eligible carrier" shows that more than eligibility is required to receive support.[2655] GTE also suggests that, as it has in the Lifeline program, the Commission has the authority to condition acceptance of federal funds upon compliance with federal guidelines.[2656] GTE contends that accepting the arguments of CompTel and WorldCom would convert section 214(e) into an entitlement, and would prevent states and the Commission from carrying out their obligations under section 254(i).[2657] GTE further asserts that converting section 214(e) into an entitlement would preclude adoption of its proposed competitive bidding mechanism and therefore would violate the Commission's duty to fully consider all reasonable alternatives.[2658]

79. Additional Obligations as a Condition of Eligibility. Several incumbent LECs assert that the provisions of section 214(e)(1) are insufficient to further universal service goals, and suggest that all eligible carriers should comply with carrier of last resort (COLR) obligations, or with

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comments at 6 (asserting section 214(e)(1) is intended to provide threshold for eligibility, but its terms do not constitute outer limits of requirements for eligible carriers).

[2655] GTE reply comments at 8. Section 254(e) provides, in relevant part: "A carrier that receives such support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended. Any such support should be explicit and sufficient to achieve the purposes of this section." GTE also points out that the legislative history states that "any eligible telecommunications carrier that receives such support shall only use that support [for specified purposes]," which shows that not every eligible carrier will receive support (citing the Joint Explanatory Statement at 131).

[2656] GTE reply comments at 10. *See also* GTE reply comments at 10-11 (asserting that Joint Board's recommendation that Commission rely on service quality data collected by states to ensure that first universal service principle is implemented implies that Commission may specify guidelines with which states must comply).

[2657] GTE reply comments at 6-9 (citing section 254(i) which states that "[t]he Commission and the States should ensure that universal service is available at rates that are just, reasonable, and affordable").

[2658] GTE reply comments at 11-13, n.22 (*citing Brookings Muni. Tel. v. FCC*, 822 F.2d 1153, 1169 (D.C. Cir. 1987)).

requirements identical to those imposed on incumbent LECs at the state or federal level with respect to pricing, terms, conditions, provisioning, and quality standards.[2659] GTE suggests that the terms of the obligation to serve should be set by each state, subject to broad federal guidelines.[2660] GTE, along with several other commenters, disagrees with the Joint Board's conclusion that the requirements of section 214(e)(1) will prevent carriers from "cherry-picking" by offering differential rates.[2661] GTE asserts that, in order to prevent carriers from creating specialized service packages designed to attract only the most profitable customers, the Commission should require each carrier to offer a service package that includes only the federally-supported services on a stand-alone basis at a price determined to be "affordable" by the state commission.[2662]

80. Several incumbent LECs assert that the Joint Board's recommendation not to impose additional criteria is in conflict with its recommended principle of competitive neutrality because some carriers must perform more burdensome and costly functions than other carriers for the same

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[2659] *See, e.g.,* Ameritech comments at 8; Ameritech comments, app. A at 37-42; Cincinnati Bell comments at 7-8; Evans Tel. Co. comments at 12-13 (requiring carrier to advertise throughout service area, if carrier cannot serve entire area, is insufficient); GTE comments at 47-50; Roseville Tel. Co. comments at 16; SBC comments at 19-20 (asserting that "the Joint Board should have gone further . . ."); USTA comments at 23-24; CWA reply comments at 9-10; USTA reply comments at 14.

[2660] GTE comments at 18, 47. *See also* CPI reply comments (broad federal guidelines will provide guidance to states in advance of preemption proceedings).

[2661] GTE comments at 16; GTE reply comments at 14-16. *Accord* Ameritech comments at 9 n.15; Ameritech comments, app. A at 14-15 ("it would be virtually impossible to police the marketing plans of multiple providers . . . to ensure that information on competitive offerings is not selectively targeted . . ."); TCA comments at 3-4; CWA reply comments at 9-10.

[2662] GTE comments at 16, 49-50; USTA at 24; GTE reply comments at 19. This argument is also addressed *supra* in section ____ [definitions].

compensation.[2663] Ameritech explains that incumbent LECs incur higher costs than other carriers because their unique regulatory obligations require them to: 1) support a network that is capable of handling traffic at the busiest times; 2) incur financial risk associated with the inability to cease providing service if providing service becomes financially detrimental; 3) incur financial risk associated with stranded investment; and, 4) at least with respect to some incumbent LECs, provide equal access.[2664] In its *Cherry-Wildman Report*, Ameritech asserts that imposing COLR obligations asymmetrically on some carriers without compensating those carriers for the costs of those obligations is not sustainable.[2665] Ameritech asserts that an asymmetrical burden will favor less efficient firms that are free from such burdens, and asserts that, in extreme circumstances, carriers that retain these obligations may be driven from the industry altogether.[2666]

81. PCIA disagrees with the proposals to impose additional eligibility criteria and asserts that competitive neutrality does not require that all carriers be subject to the same regulation, rather it requires that the Commission account for the fact that different carriers operate in different competitive environments.[2667] MFS asserts that the Commission should not impose COLR obligations as a component of eligibility because such a requirement would be administratively

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[2663] Ameritech comments at 7-8, 9; GTE comments at 13-14, 48; SBC comments at 22; CWA reply comments at 10; GTE reply comments at 17. *Contra* CPI reply comments at 12-13 (asserting that adoption of additional eligibility requirements would violate principle of competitive neutrality).

[2664] Ameritech comments at 8-9. *Accord* SBC comments at 22. Ameritech states "when the supply of a product or service is characterized by substantial sunk costs, the risk that customers may turn to an alternative supplier after sunk costs have been incurred increases the price at which a firm will be willing to offer service . . . ." Ameritech comments, app. A at 9 (citing Goldberg, *Relational Exchange*, 23 American Behavioral Scientist 337-352 (1980), Goldberg, *Regulation and Administered Contracts*, 7 Bell J. of Econ. 426-448 (1976)).

[2665] Ameritech comments, app. A at 15-16.

[2666] Ameritech comments, app. A at 8-9

[2667] PCIA reply comments at 29.

difficult to implement, and would not be competitively neutral because it would create a cost disadvantage for some carriers that might otherwise serve low-income and high cost customers.[2668]

82. GTE, SBC, and USTA further assert that incumbent LECs with COLR obligations are likely to be forced to serve the least profitable customers because they believe that, unless symmetrical regulations are imposed, competitive carriers will be able to "cream-skim" the most profitable customers.[2669] They allege that averaged levels of universal service support COLR carriers receive are unlikely to be sufficient for serving just the highest cost customers in an area.[2670] Ameritech and GTE observe that if all subscribers could be served at cost or at a profit, states would not need to impose COLR obligations.[2671]

83. WinStar asserts that the Commission should amend the Joint Board's recommendation that, to be eligible, a carrier must offer service to all low-income customers in a service area because, as a practical matter, it may be technically infeasible for a wireless carrier to offer service to some customers.[2672] SBC opposes WinStar's argument, stating that this obligation is one of the risks associated with being a facilities-based carrier, and part of the obligation incumbent LECs shoulder every day.[2673]

84. Several commenters suggest other criteria that they believe should be imposed upon

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[2668] MFS reply comments at 14.

[2669] GTE comments at 17-18; SBC comments at 19; GTE reply comments at 14-16.

[2670] *Id*.

[2671] Ameritech comments at 10; Ameritech comments, app. A at 15; GTE reply comments at 19.

[2672] WinStar comments at 12-13 (stating that WinStar's 39 GHz technology allows WinStar to offer service only to customers within line-of-sight of WinStar's facilities).

[2673] SBC reply comments at 7.

eligible carriers. SBC and USTA assert that if it fails to ensure that eligible carriers comply with some level of regulation regarding quality of service and affordability, the Commission will also fail to ensure that carriers provide "quality" services, as required by the first universal service principle.[2674] The Ohio PUC suggests that, in order to qualify as eligible, non-rural carriers should be required to provide interconnection to other certified local carriers and to unbundle and resell their services because it believes this would further the principle of competitive neutrality.[2675] MFS asserts that the Commission should adopt, as a prerequisite for receipt of federal funds, the standards that the Rural Utilities Service (RUS) imposes upon its borrowers.[2676] If carriers demonstrate that it is technically infeasible to meet these standards because of exogenous factors, such as limited spectrum in the case of wireless providers, MFS suggests that the Commission, consistent with the principle of competitive neutrality, grant waivers to such providers.[2677] CWA asserts that the Commission should prevent telecommunications carriers that violate the National Labor Relations Act from receiving universal service support for the twelve-month period following a National Labor Relations Board decision of a labor-law violation.[2678] CWA asserts that such a rule would promote competitive neutrality by preventing carriers from illegally suppressing labor costs, would promote rapid provision of high-quality services, and would increase the growth of high-wage, high-skill jobs.[2679] CWA cites federal regulations for Head Start, the Job Training Partnership Act (JTPA), and Medicare

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[2674] SBC comments at 20; USTA at 23. Section 254(b)(1) states: "Quality services should be available at just, reasonable, and affordable rates." 47 U.S.C. § 254(b)(1).

[2675] Ohio PUC reply comments at 3-4 (*citing* Ohio PUC's petition for reconsideration of *Local Competition Order*).

[2676] MFS comments at 7.

[2677] MFS comments at 11.

[2678] CWA reply comments at 8.

[2679] CWA reply comments at 9.

as precedent for this recommendation.[2680]

85. Treatment of Particular Classes of Carriers. Time Warner advocates excluding carriers subject to price cap regulation from eligibility to receive universal service support. Time Warner asserts that these carriers possess sufficient flexibility to permit internal funding of universal service obligations.[2681] Time Warner suggests that, as a safety net, the Commission allow carriers subject to price cap regulation to petition state commissions to receive universal service support if they demonstrate that their universal service obligations are not allowing them to earn a fair return.[2682] Sprint opposes Time Warner's position. First, Sprint asserts that most LECs' local service offerings have not been subject to price cap regulation.[2683] Second, Sprint asserts that, because states require carriers to maintain low basic service prices, price cap LECs will not be able to fund universal service obligations internally.[2684]

86. Vanguard and Centennial state that the Commission should confirm the ability of wireless providers to be designated eligible for universal service support.[2685] Centennial urges the Commission to clarify that a state may not use the terms of section 332(c)(3)(A) to deny a CMRS

[2680] CWA reply comments at 9. CWA states that Head Start and JTPA regulations prohibit recipients from using funds to "assist, promote, or deter union organizing" 29 U.S.C. § 1553(c)(1), 42 U.S.C. § 9839(e), and Medicare regulations prohibit recipients from using funds "directly related to influencing employees respecting unionization" 42 U.S.C. § 1395x(v)(1)(N).

[2681] Time Warner comments at 12 n.14.

[2682] Time Warner comments at 12 n.14.

[2683] Sprint reply comments at 17-18.

[2684] Sprint reply comments at 17-18. *Accord* Ameritech comments at 10 (as competition increases, COLR's ability to recover costs through prices of other services is significantly reduced).

[2685] Vanguard comments at 2; Centennial reply comments at 13. *Accord* Motorola reply comments at 16-17.

provider eligible status.[2686] Celpage indicates that the "narrow" definition of eligible carriers recommended by the Joint Board precludes most CMRS providers from meeting the eligibility criteria because they will not be able to offer all the supported services.[2687] NYNEX, supported by CWA, expresses concern that it may be difficult to determine whether a CMRS provider is actually providing service to a customer and asserts, therefore, that a wireless carrier should receive support only if the wireless carrier is a customer's primary carrier and the customer pays unsubsidized rates for its wireline service.[2688] PCIA opposes this proposal.[2689] PCIA states that federal laws against fraud sufficiently protect against any attempt by CMRS carriers to seek universal service support for customers that they do not serve, and asserts that additional requirements placed solely on wireless carriers would discriminate against these carriers.[2690]

87. Advertising. WorldCom suggests that the Commission should advise states not to impose specific or extensive advertising requirements, especially if they would unduly burden new entrants. WorldCom asserts that competition by itself should prove more than sufficient to spur

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[2686] Centennial reply comments at 13. Section 332(c)(3)(A) prohibits a state, in certain circumstances, from "regulat[ing] the entry of or the rates charged by any commercial mobile service or any private mobile service . . . ." 47 U.S.C. § 332(c)(3)(A).

[2687] Celpage comments at 14-15; Celpage reply comments at 3. See also Arch comments at 4 (stating that, because paging companies will not be able to offer all supported services, they should contribute at a lower rate than other contributing carriers). *Cf.* Centennial reply comments at 12-13 (Centennial expects to be able to provide all services necessary to qualify for universal service support).

[2688] NYNEX comments at 5-6 (asserting that, because there is no dedicated loop for wireless service, wireless carrier could claim it was providing universal service to customer even if customer does not use, or own, mobile phone); CWA reply comments at 10-11.

[2689] PCIA reply comments at 32.

[2690] PCIA reply comments at 32 (*citing*, in part, 47 U.S.C. § 1001).

advertising.[2691] Roseville Tel. Co. asserts that the Commission should make explicit that the section 214(e) requirement that carriers advertise in "media of general distribution" is not satisfied by placing advertisements in business publications alone, but compels carriers to advertise in publications targeted to the general residential market.[2692] CPI states that although it recommended that the Commission should not create national standards for advertising, the Joint Board did not adopt any recommendation regarding the meaning of the term "throughout" as that term appears in section 214(e).[2693]

b. Section 214(e)(1) Facilities Requirement

88. Section 214(e)(1) Facilities Requirement. Several commenters contend that it will be difficult to determine whether the section 214(e)(1) facilities requirement has been met, and urge the Commission to clarify its meaning.[2694] Noting that the Commission sought comment on this issue in its *Infrastructure Sharing NPRM*, EXCEL alleges that there is no commonly accepted definition of the term "facilities" or "facilities-based carrier."[2695] Commenters contend that the section 214(e)(1) facilities requirement could require a carrier to perform any of the following: construct and maintain its own loop facilities serving at least 20 percent of its customers;[2696] use its own loop and switching

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[2691] WorldCom comments at 16.

[2692] Roseville Tel. Co. comments at 16.

[2693] CPI reply comments at 13 n.24.

[2694] EXCEL comments at 9. *Accord* Telco comments at 6; TRA comments at 13; CPI reply comments at 13.

[2695] EXCEL comments at 8-9 (*citing* Infrastructure Sharing Provisions in the Telecommunications Act of 1996, *Notice of Proposed Rulemaking*, CC Docket 96-237, FCC 96-456 (rel. Nov. 22, 1996)).

[2696] Lufkin-Conroe reply comments at 16.

facilities;[2697] use its own switch in
combination with resold service;[2698] construct a single, short loop;[2699] install one mile of fiber;[2700] make a *de minimis* use of its own facilities;[2701] use its own switch to provide exchange access for billing purposes;[2702] or, own a billing office.[2703] EXCEL indicates that the Commission could probably not adopt the most restrictive interpretation of the section 214(e)(1) facilities requirement -- that a carrier must use its own facilities to provide every aspect of every supported service -- because, for example, carriers would have difficulty providing access to directory assistance using their own facilities.[2704] A number of commenters urge the Commission to determine that provisioning service through the use of unbundled network elements is sufficient to meet the section 214(e)(1) facilities requirement.[2705] CompTel asserts that the Joint Board appears to support interpreting unbundled network elements as a carrier's own facilities when it states that a carrier may

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[2697] Cathey, Hutton comments at 7.

[2698] Telco comments at 6.

[2699] SBC comments at 21.

[2700] EXCEL comments at 9.

[2701] MFS reply comments at 13 n.32

[2702] EXCEL comments at 9.

[2703] EXCEL comments at 9.

[2704] EXCEL comments at 10.

[2705] CompTel comments at 13; EXCEL comments at 7; Telco comments at 6-7 (*citing* TRA Recommended Decision comments at 9); WorldCom comments at 14-15 (stating purchaser of unbundled network elements steps into shoes of incumbent and becomes facilities provider); AT&T reply comments at 12-13. Several other commenters concede that purchasers of unbundled network elements deserve at least some support. *See, e.g.,* Cathey, Hutton comments at 5; NYNEX comments at 35; PacTel comments at 24; SBC comments at 22.

meet the eligibility criteria "regardless of the technology used by that carrier."[2706] Lufkin-Conroe vigorously opposes classifying the purchase of unbundled network elements as sufficient to meet the section 214(e)(1) facilities requirement.[2707] Lufkin-Conroe asserts that the purpose of the section 214(e)(1) facilities requirement, particularly when considered in combination with the requirements of sections 214(e)(3) and (e)(4), is to ensure the construction and maintenance of "adequate physical facilities to serve each area."[2708] Lufkin-Conroe asserts that allowing a provider to obtain universal service support after purchasing just one unbundled network element does not further this purpose.[2709] EXCEL urges the Commission to prohibit states from defining the term "facilities" differently from the definition adopted by the Commission.[2710]

89. MFS suggests that the policy underlying the section 214(e)(1) facilities requirement is to prevent double recovery by preventing both a reseller and the underlying wholesaler from receiving compensation for a single customer.[2711] MFS asserts the Commission should give effect to section 214(e)(1) by including "pure" resellers and limiting the potential for double recovery by explicitly reflecting subsidies on customer bills.[2712]

[2706] CompTel at 14 (*citing* Recommended Decision, 12 FCC Rcd at 169).

[2707] Lufkin-Conroe reply comments at 14. *Accord* Bell Atlantic comments at 3 n.7.

[2708] Lufkin-Conroe reply comments at 14-15. *Accord* GVNW comments at 8; RT comments at 11; Tularosa Basin Tel. comments at 10; KMC reply comments at 9.

[2709] Lufkin-Conroe reply comments at 14-15.

[2710] EXCEL comments at 10. *See also* WorldCom comments at 15 (urging Commission to require states to recognize unbundled network elements for this purpose); CPI reply comments (asserting that requiring carriers to deploy their own separate networks will inhibit competition in high cost areas).

[2711] MFS comments at 17. *Contra* USTA reply comments at 14.

[2712] MFS comments at 17-18.

90. Telco asserts that the Commission should interpret the term "facilities" consistently for purposes of sections 251(c)(2) and 214(e)(1).[2713] Telco asserts that, because section 251(c)(2) states incumbent LECs have the "duty to provide, for the *facilities and equipment of any requesting telecommunications carrier*, interconnection with the local exchange carrier's network" the Commission should determine that resellers that provide universal service through interconnection arrangements or the purchase of unbundled network elements are eligible for universal service support.[2714] TRA states that the Commission declined to impose a facilities requirement on requesting carriers under section 251(c)(3) because the Commission determined that "it would be administratively impossible"[2715] and concluded that any facilities requirement it could construct "would likely be so easy to meet it would ultimately be meaningless."[2716]

91. Eligibility of Resellers. Several commenters, mostly representing incumbent LECs, support the Joint Board's conclusion that the explicit language of section 214(e)(1) precludes "pure" resellers from eligibility.[2717] On the other hand, several commenters, mostly representing resellers, indicate that the Joint Board's conclusion was not compelled by the statutory language and assert that the Commission should adopt an interpretation of section 214(e)(1) that would not exclude resellers

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[2713] Telco comments at 7.

[2714] Telco comments at 7 (*citing* 47 U.S.C. § 251(c)(2) (commenter's emphasis)).

[2715] TRA comments at 12 (*citing Local Competition Order*, 11 FCC Rcd at 15,670).

[2716] TRA comments at 13 (*citing Local Competition Order*, 11 FCC Rcd 15,670).

[2717] *See, e.g.*, Cathey, Hutton comments at 5; GVNW comments at 8; RT comments at 11; SBC comments at 21; CPI reply comments at 14; RTC reply comments at 22. *See also* GTE reply comments at 60; Lufkin-Conroe reply comments at 15-16; RTC reply comments at 22-23.

from eligibility.[2718] EXCEL, MFS, Telco and TRA assert that excluding "pure" resellers violates the Joint Board's recommended principle of competitive neutrality.[2719] EXCEL and Telco assert it is not competitively neutral to require resellers to contribute to the fund, but not allow them to be compensated from the fund.[2720] TRA and Telco assert that denying resellers eligibility will deprive higher cost customers of the lower prices and improved services brought on by competition.[2721] TRA indicates that the exclusion of resellers contradicts the Joint Board's finding that "wholesale exclusion of classes of carriers from eligibility is inconsistent with the plain language of the 1996 Act."[2722] TRA states that elsewhere the Commission has determined that "competitive neutrality" means that "no carrier be significantly disadvantaged in its 'ability to compete with other carriers for customers in the marketplace.'"[2723] Several commenters contend that EXCEL's and TRA's arguments ignore the plain language of the statute, and should not be adopted.[2724] Lufkin-Conroe asserts that allowing resellers to receive universal service support would do nothing to improve the quality of service,

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[2718] EXCEL comments at 3; MFS comments at 16-18; Telco comments at 6; TRA comments at 10-11. *See also* AT&T reply comments at 12 n.10 ("AT&T does not necessarily concur with the Joint Board that carriers providing local service through resale alone do not satisfy section 214(e)(1)'s requirements . . ."); KMC reply comments at 9.

[2719] EXCEL comments at 3, 5; MFS comments at 17; Telco comments at 7-8; TRA comments at 10, 14 (asserting that exclusion denies resale carriers revenue streams that are comparable to other carriers).

[2720] EXCEL comments at 5; Telco comments at 7-8

[2721] Telco comments at 8; TRA comments at 15.

[2722] TRA comments at 15 (*citing* Recommended Decision, 12 FCC Rcd at 171).

[2723] TRA comments at 10 (*citing* Telephone Number Portability, *Report and Order*, 11 FCC Rcd 8352 at para. 131 (1996)).

[2724] GTE reply comments at 60; Lufkin-Conroe reply comments at 15-16; RTC reply comments at 22-23.

increase access to advanced services, or enhance the comparability of rural services.[2725]

92. EXCEL, Telco, and TRA assert that, if the Commission feels compelled to adopt the statutory interpretation of the section 214(e)(1) facilities requirement recommended by the Joint Board, the Commission should forbear from that requirement.[2726] EXCEL and Telco assert that the three statutory criteria for forbearance have been met.[2727] They state that the first prong of the test is met because the restriction itself is discriminatory: resellers, unlike other carriers, will not be able to recover the costs of serving high cost consumers without universal service support.[2728] EXCEL and Telco assert that the second prong is met because so long as they receive the services that are supported by federal universal service support mechanisms, it makes no difference to consumers whether the carrier is using its own facilities. Supported by TRA, EXCEL and Telco assert that enforcing the restriction may harm consumers by limiting consumers' choices and will deprive eligible consumers of the benefits of competition.[2729] TRA asserts that the Commission has

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[2725] Lufkin-Conroe reply comments at 15.

[2726] EXCEL comments at 11-13; Telco comments at 8-10; TRA comments at 15-16. In order for the Commission to exercise its forbearance authority with respect to a provision of the Act, it must determine that: 1) enforcement of the provision "is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in connection with that telecommunications carrier or telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory;" 2) enforcement of such provision "is not necessary for the protection of consumers;" and 3) "forbearance from applying such provision . . . is consistent with the public interest." 47 U.S.C. § 160(a). In addition, the Commission must consider "whether forbearance . . . will promote competitive market conditions." 47 U.S.C. § 160(b).

[2727] EXCEL comments at 12; Telco comments at 8-9. *See also* TRA comments at 15-16.

[2728] EXCEL comments at 12; Telco comments at 8-9.

[2729] EXCEL comments at 12; Telco comments at 9-10 (asserting that competition will lower prices, increase incentives for innovation, and increase consumer choice); TRA comments at 15 (asserting that competitive pressures will improve rates and services). *Accord* KMC reply comments at 9. TRA notes that the Joint Board acknowledged unnecessary restrictions on eligibility could "chill competitive entry into high cost areas" in the

recognized the importance of resale as an entry vehicle for small businesses and other new entrants.[2730] Finally, these commenters assert that, as the Commission found in the *Local Competition Order*, requiring carriers to own some local exchange facilities does not promote competition.[2731] Relying on the Commission's language in the *Local Competition Order*, cited above, TRA asserts that there is no policy rationale for requiring a carrier to own a single piece of equipment, and thus encourages the Commission to forbear from enforcing the "meaningless" section 214(e)(1) facilities requirement.[2732]

c. Requirements of Section 254(e) Pertaining to Intended Uses of Universal Service Funds

93. Ensuring Universal Service Support is Used as Intended. The North Dakota PSC supports the Joint Board's recommendation that the Commission conduct periodic reviews to ensure that universal service is being provided if a state has insufficient resources to support monitoring programs.[2733]

C. Definition of Service Areas

1. Comments

a. Non-Rural Service Areas

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case of the schools and libraries program. TRA comments at 15 (*citing* Recommended Decision at para. 156).

[2730] TRA comments at 12.

[2731] EXCEL comments at 12 (*citing Local Competition Order*, 11 FCC Rcd at 15,670). *See also* Telco comments at 9-10; TRA comments at 15; KMC reply comments at 9.

[2732] TRA comments at 15-16.

[2733] North Dakota PSC comments at 2.

94. Non-Rural Service Areas. WorldCom and the Maryland PSC support the Joint Board's finding that states have primary responsibility for designating the service area.[2734] AT&T asserts that, although state commissions have the authority to define service areas, if they fail to designate service areas that are coincident with the zones for unbundled network elements, this action would contravene the requirements of section 253. AT&T reasons that such a decision by a state commission might require a purchaser of unbundled network elements to pay more for that unbundled network element than it could recover from the customer and from universal service support mechanisms, thus precluding a carrier using unbundled network elements from competing in a high cost area.[2735] Nextel asserts that the Commission has authority to alter rural service areas.[2736]

95. A number of non-incumbent LECs support the Joint Board's recommendation that the Commission encourage states to designate service areas that are not "unreasonably large."[2737] PacTel indicates that any averaging of costs across a large geographical area will penalize carriers that serve states with a mix of high cost and low cost areas.[2738] CTIA agrees with the Joint Board's conclusion that state designation of an unreasonably large service area may violate section 253.[2739] Cox and PCIA favor service areas that are as small as possible. Cox and PCIA reason that small service areas will be easier for new entrants to serve, thus encouraging competition which will benefit consumers

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[2734] Maryland PSC comments at 7; WorldCom comments at 15. *See also* Bell Atlantic at 14.

[2735] AT&T reply comments at 13.

[2736] Nextel comments at 10 n.22 (*citing* 47 U.S.C. § 214(e)(5)).

[2737] GCI comments at 4; CTIA comments at 5 (this will encourage CMRS entry into supported areas). *See also* Teleport comments at 4; WorldCom comments at 15; MCI reply comments at 1-2.

[2738] PacTel comments at 25, n.41.

[2739] CTIA comments at 5 n.10. *See also* Teleport comments at 5 ("areas should not be so large as to violate the principle of competitive neutrality or the federal statute's prohibition on barriers to entry").

and, in the long run, will reduce the need for universal service support as prices are driven down.[2740] PCIA, supported by Sprint PCS, suggests that the Commission "emphatically" recommend to the state commissions that they design all services areas, rural and non-rural, according to census blocks.[2741] WorldCom, along with APC, asserts that incumbent LECs should not be unduly advantaged by designation of service areas that correspond closely or precisely to the contours of their existing facilities.[2742] Teleport asserts that service areas should be consistent with the cost study parameters adopted by the Commission to calculate the level of high cost support, and that no carrier should be required to serve an area larger than that used for the cost study area.[2743] CPI suggests that the Commission adopt guidelines to assist state commissions in determining the size of each service area.[2744]

96. Ability of Commission to base support on areas smaller than state-designated service areas. SBC and Sprint PCS support the Joint Board's determination that the Commission can base high cost support on a geographic area that differs from a service area established by a state commission.[2745] Bell Atlantic disagrees, contending that section 214(e)(5) gives the states exclusive authority to establish non-rural service areas "for the purpose of determining universal service

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[2740] Cox comments at 6; PCIA reply comments at 33. *See also* Sprint PCS comments at 8 (stating that CBGs are more homogeneous than wire centers or current service areas).

[2741] PCIA reply comments at 34; Sprint PCS comments at 8-9.

[2742] Teleport comments at 5; WorldCom comments at 15; APC reply comments at 4 (citing Recommended Decision, 12 FCC Rcd at 181). *See also* WinStar comments at 13 (asserting it may be technologically infeasible for some carriers to offer service to all customers in a service area).

[2743] Teleport comments at 5.

[2744] CPI reply comments at 11-12.

[2745] SBC comments at 31-32; Sprint PCS comments at 9. *See also* USTA comments at 31 (stating that all carriers should have an opportunity to receive universal service support for geographic areas that are smaller than their serving areas).

obligations *and support mechanisms*."[2746]

b. Rural Service Areas

97. Service Areas Served by Rural Telephone Companies. A majority of parties who commented on this issue support the Joint Board's recommendation to adopt rural study areas as the service areas in geographic areas served by a rural telephone company.[2747] Several entities representing the interests of rural LECs assert this decision will ensure that "cream-skimming" will not occur in rural areas.[2748] Minnesota Coalition asserts that this decision is consistent with other provisions of the 1996 Act that make clear that competition in rural areas should not occur in a manner that harms universal service.[2749] Minnesota Coalition also agrees with the Joint Board that adopting rural study areas as service areas would reduce the costs of implementing the program because rural LECs' accounting systems are designed to be applied to an entire study area, and adopting this approach avoids the costs and difficulties of attempting to determine embedded costs for a different service area.[2750] ITC asserts that retaining study areas for rural carriers while allowing non-rural service areas to be variable in size may result in inequities because current study areas often incorporate a small urban area that lowers the average cost per loop, while the newly

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[2746] Bell Atlantic comments at 14 (*citing* 47 U.S.C. § 214(e)(5) (commenter's emphasis)).

[2747] GCI comments at 4; GVNW comments at 8; RT comments at 11; TCA comments at 3; Tularosa Basin Tel. comments at 10-11; United Utilities comments at 2; Virginia's Rural Tel. Cos. comments at 2.

[2748] GVNW comments at 8-9; Minnesota Coalition comments at 40; RT comments at 11.

[2749] Minnesota Coalition comments at 40-41 (*citing* 47 U.S.C. § 253(f), which allows a state to require any competitive provider in a rural area to meet the requirements of section 214(e)(1) and section 214(e)(2), which requires the state to find that designating multiple carriers in a rural area is in the public interest).

[2750] Minnesota Coalition comments at 43.

designated non-rural service areas may not.[2751] TCA expresses concern regarding the Joint Board's recommendation that "existing" rural study areas be used as rural service areas.[2752] TCA indicates that when a rural study area is modified, the corresponding service area should also be modified accordingly.[2753]

98. Several parties, including parties representing primarily wireless interests, assert that the Joint Board neglected to account for the fact that many rural study areas are non-contiguous when it recommended that rural LECs' study areas be used as rural service areas for purposes of section 214(e).[2754] Cox, Nextel, and Vanguard assert that adoption of this recommendation could impede wireless providers from qualifying for universal service support, in part because some wireless carriers are licensed within geographic regions with prescribed boundaries or are licensed on a station-by-station basis.[2755] Vanguard indicates that the analysis that led the Joint Board to recommend that states not designate unreasonably large service areas also dictates that the size and distribution of rural service areas not inhibit competition.[2756] GCI states that it is willing to provide service in all of a non-contiguous study area of a rural LEC, as long as the Commission does not

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[2751] ITC reply comments at 9-10.

[2752] TCA comments at 4 (*citing* Recommended Decision, 12 FCC Rcd at 179).

[2753] TCA comments at 4.

[2754] Cox comments at 7; Nextel comments at 9; Vanguard comments at 4. *Accord* CPI reply comments at 10 ("CPI recognizes the practical difficulties of adopting service areas that are different from the companies' study areas at this time").

[2755] Cox comments at 7-8; Nextel comments at 9-10 (emerging CLECs and CAPs are financially and practically limited to providing service in distinct regions); Vanguard comments at 4-5. *Accord* CPI reply comments at 10.

[2756] Vanguard comments at 5 (*citing* Recommended Decision, 12 FCC Rcd at 181).

impose criteria in addition to the criteria included in section 214(e)(1)(A).[2757]

99. Rather than using rural study areas, Cox suggests that new entrants should be required to serve only the entire contiguous portion of a rural LEC's study area because it will give competitors a fair chance to obtain universal service support while protecting rural carriers from "cream-skimming."[2758] Cox suggests that this approach would be consistent with the Commission's current standards for modifying study areas which require carriers to demonstrate that modifications will not increase universal service costs.[2759] In the alternative, Cox asserts that carriers could provide the core services throughout a service area.[2760] Cox asserts that allowing providers to offer the core services cooperatively will alleviate difficulties in serving contiguous and non-contiguous service areas.[2761] Vanguard and Nextel support defining a service area as the area in which a service provider is seeking to serve customers, citing examples of a telephone franchise area or a wireless company's service area.[2762] Nextel indicates that adopting this definition would be consistent with the competitive neutrality principle, and is also consistent with the Joint Board's recommendation regarding the analogous requirement for providers that offer supported services to schools and

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[2757] GCI reply comments at 3

[2758] Cox comments at 8. *Accord* Nextel comments at 10-11; Vanguard comments at 5.

[2759] Cox comments at 8.

[2760] Cox comments at 8.

[2761] Cox comments at 8 (explaining that, in many cities, cable franchises are split between two cable providers and indicating that allowing cable operators to cooperate to serve entire service area would allow them to serve whole city).

[2762] Nextel comments at 10-11; Vanguard comments at 5.

libraries.[2763] Vanguard indicates its proposed definition of a rural service area is consistent with the language of section 214(e)(5) which recognizes that a rural LEC's study area may not be appropriate for determining universal service support eligibility.[2764] Vanguard clarifies that CMRS service areas have been determined carefully by the Commission and that the Commission has adopted explicit build-out obligations for the provision of service throughout a given geographic region.[2765] Thus, Vanguard asserts that if a wireless company's service area was adopted as its section 214 service area, CMRS providers would not be able to provide service only to the most lucrative consumers in an areas, as some LECs allege.[2766]

[2763] Nextel comments at 10-11, *citing* Recommended Decision, 12 FCC Rcd at 364 ("using an expansive definition of geographic area might be unfair to a small telephone company serving a single community . . . for such a definition would permit it to be compelled to serve other schools outside its geographic market"). Under section 254(h)(1)(B), schools and libraries are entitled to receive discounts for services provided by any telecommunications carrier serving a geographic area. *See* Recommended Decision, 12 FCC Rcd at 364. The Joint Board recommended that the term "geographic area" in section 254(h)(1)(B) mean the area in which the service provider is seeking to serve customers. *Id.*

[2764] Vanguard comments at 5-6.

[2765] Vanguard reply comments at 3-4.

[2766] Vanguard reply comments at 3-4.

D. Unserved Areas

1. Comments

100. TCA, the lone commenter on the Joint Board recommendation on this issue, asserts that rules for unserved areas are a state matter under section 102 of the 1996 Act.[2767] TCA indicates that any federal pronouncements in this area should state that no federal intervention is needed.[2768]

VII. RURAL, INSULAR, AND HIGH COST

A. Overview

101. The following is a summary of the comments relating to the rural, insular, and high costs issues.

B. Universal Service Support Based on Forward-Looking Economic Cost

1. Scope of Cost to be Supported

102. Forward-looking Costs. Many of the commenters agree with the Joint Board's recommendation that we base universal service support on the forward-looking costs of constructing and operating the network used to provide the services included in the list of services adopted pursuant to section 254(c)(1).[2769] Several commenters contend that basing support mechanisms on forward-looking costs best reflects the costs of an efficient operator, thereby facilitating the transition

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[2767] Section 102 of the 1996 Act added section 214(e) to the Communications Act of 1934.

[2768] TCA comments at 4.

[2769] *See, e.g.,* ITAA comments at 2; Texas PUC comments at 5; PCIA reply comments at 25.

to a competitive environment.[2770] The Business Software Alliance and MCI contend that the use of forward-looking costs offers the correct economic incentives for carriers deciding how to invest, including whether to enter a new market.[2771] The CNMI Representative suggests that using forward-looking costs would permit support levels to reflect not only costs, but also the realities of s^Apply and demand.[2772] ITI states that the use of forward-looking costs would ensure that universal service support corresponds to the true costs of providing the service.[2773] AirTouch states that using forward-looking costs, and breaking the link between the carrier's embedded costs and the support level, will create price-cap-like incentives for efficient cost reduction.[2774]

103. Other commenters disagree, however, and contend that the use of forward-looking costs will produce uncertainty and inaccuracy, because they claim that such cost figures are volatile, subjective, and unverifiable.[2775] Several commenters argue that because they prevent carriers from recovering substantial portions of their infrastructure investment these forward-looking assumptions render it irrational to make future investments.[2776] John Staurulakis adds that use of forward-looking costs undermines Congress's intent to promote facilities-based competition.[2777] The California SBA

[2770] *See, e.g.,* Sprint comments at 4; Chicago reply comments at 13; CPI reply comments at 2.

[2771] Business Software Alliance comments at 9-10; MCI reply comments at 2. *See also* AT&T/MCI model reply comments at 2.

[2772] CNMI Representative reply comments at 2.

[2773] ITI comments at 2.

[2774] AirTouch post-workshop comments at 4.

[2775] *See, e.g.,* CSE Foundation comments at 6; Minnesota Coalition comments at 16-17; Western Alliance comments at 36; ITC reply comments at 5.

[2776] Western Alliance comments at 37. *See also* SBC comments at 24; CWA reply comments at 14.

[2777] John Staurulakis comments at 6-7.

contends that using the least-cost, most-efficient technology standard will likely underestimate the real cost of providing the supported services in high cost areas because few if any carriers are actually able to use such technology.[2778] Harris agrees, stating that the newest technologies are often not available to ILECs, particularly small ILECs serving rural areas.[2779]

104. USTA, while opposing the use of forward-looking costs, states that if such costs are used, the appropriate basis for determining forward-looking economic costs is the expected cost of an actual firm in the market, not a hypothetical entrant that would instantaneously supply the entire market. USTA argues that an actual market participant, whether an incumbent or a new entrant, may be efficient in a dynamic sense, although not in the "static" sense assumed in the proxy models.[2780] USTA notes that the telephone industry undergoes constant technological change, and asserts that the assumption of a static environment in the models poses significant cost recovery risks for ILECs, even if they are operating efficiently.[2781]

105. Embedded Costs. Most ILECs contend that universal service support should be based on their embedded costs, rather than on forward-looking costs.[2782] The ILECs assert that embedded costs more accurately reflect the real costs of providing service than forward-looking costs.[2783] Ameritech and Puerto Rico Tel. Co. agree, stating that embedded costs accurately reflect the true

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[2778] California SBA comments at 2.

[2779] Harris comments at 4.

[2780] USTA model comments at 9, att. at 5.

[2781] *Id* at 9. *See also* California SBA comments at 2-3; GTE reply comments at 25-26; SBC reply comments at 12.

[2782] *See, e.g.*, Ameritech comments at 10; Minnesota Coalition comments at 18; BellSouth reply comments at 9; *contra* Sprint reply comments at 9.

[2783] *See* Roseville Tel. Co. comments at 11; BellSouth reply comments at 9.

costs of providing service and have been documented over time.[2784] Tularosa Basin Tel. argues that there is no significant evidence of ILECs "goldplating" their networks through the use of universal service funds and that there is overwhelming evidence that ILECs are in fact using universal service support to bring quality services to their customers. It notes that all of its construction has been based on efficient engineering designs and competitive bidding to assure the most cost-effective infrastructure possible.[2785]

106. SBC states that nothing in the 1996 Act suggests that the Commission should jettison the use of embedded costs as a basis for support.[2786] ITC claims that using embedded costs is the best way to ensure that funds are used to support the network and that potential new entrants receive the correct economic signals about the cost of providing service in that area.[2787] The commenters also contend that use of embedded costs is the only way to ensure that there is a sufficient support mechanism, as required in section 254.[2788]

107. Many other parties oppose the use of embedded costs.[2789] PageMart asserts that embedded costs include many unnecessary costs that should not be supported through universal service support mechanisms.[2790] PCIA contends that such costs are based on obsolete rate-of-return

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[2784] Ameritech comments at 11; Puerto Rico Tel Co. reply comments at 12.

[2785] Tularosa Basin Tel. comments at 3.

[2786] SBC comments at 24.

[2787] ITC reply comments at 5.

[2788] *See, e.g.*, Minnesota Coalition comments at 17; ITC reply comments at 5; SBC reply comments at 11.

[2789] *See, e.g.*, CSE Foundation comments at 5; Business Software Associates reply comments at 9; KMC reply comments at 3;

[2790] PageMart comments at 6.

regulation.[2791] AT&T states that use of embedded costs will not allow the support mechanism to capture the full benefits of current technology.[2792] Chicago claims that basing support on embedded costs would impose enormous burdens on customers to compensate for past decision making by the ILEC, no matter how faulty those decisions were. Chicago also maintains that use of embedded costs would impose a significant barrier to entry, because support would be tied to the operating decisions of ILECs.[2793] CPI expresses concern that use of a carrier's historic costs to set the support levels would subsidize the inefficient carrier at the expense of the efficient carrier.[2794]

108. Bell Atlantic proposes that the Commission use state-averaged embedded line costs as the basis for setting universal service support levels.[2795] Bell Atlantic claims that averaging the costs within each state will eliminate any incentives not to be efficient that are built into the existing system because ILECs with obsolete technology or inefficient operations will not be rewarded with higher support payments than more efficient ILECs in the state. Bell Atlantic states that its proposal will also ensure that support flows to states that actually experience high cost, not just those that experience high costs in a theoretical model.[2796]

109. "Legacy" Costs. Several ILECs assert that the Commission should modify the Joint Board's recommended approach by providing for the explicit recovery of carriers' plant and

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[2791] PCIA reply comments at 25.

[2792] AT&T comments at 13.

[2793] Chicago reply comments at 14.

[2794] CPI reply comments at 4.

[2795] Bell Atlantic comments at 12.

[2796] *Id*. at 13.

equipment investments.[2797] These commenters contend that carriers made these investments pursuant to federal and state regulatory directives that mandated the provision of a certain level of telephone service in high cost and rural areas. Some commenters argue that any universal service support mechanism that fails to provide for recovery of the costs of an ILEC's facilities would strand the ILEC's investment and constitute a confiscation of property, in violation of the Fifth Amendment protection against takings.[2798]

110. PacTel states that the Joint Board's recommendation that non-rural carriers move to a proxy model immediately is contrary to the Telecommunications Act and the constitutional prohibition against uncompensated takings.[2799] Referring to plant and equipment investments as "legacy" costs,[2800] PacTel contends that any cost proxy model used to calculate the costs of support services must allow ILECs to recover their legacy costs, or in the alternative, establish a transitional legacy cost recovery mechanism.[2801] PacTel maintains that failure to allow carriers to recover these investment costs would break a long-standing contract between government and local telephone companies, under which telephone companies are entitled to receive a fair opportunity to recover

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[2797] *See, e.g.*, Minnesota Coalition comments at 17-19; RTC comments at 1-3, 6-8; Western Alliance comments at 14, 26-27.

[2798] *See, e.g.*, Roseville Tel. Co. comments at 12; RTC comments at 2; USTA comments at 12.

[2799] PacTel comments at 7. PacTel cites to *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 315 (1989) ("a state's decision to arbitrarily switch back and forth between methodologies in a way which required investors to bear the risk of bad investments at some times while denying them the benefit of good investments at others would raise serious constitutional questions"). *See also* Ameritech comments, att. A at 4.

[2800] PacTel comments at 6. PacTel defines "legacy" costs as "the costs associated with recovery (and in the interim, return on investment) for past investments in plant and equipment, previously found to be used and useful and includable in the ratebase for the purposes of providing regulated telecommunications services."

[2801] *Id.* at 6-10.

their legitimately incurred costs, including a fair return on investment.[2802] PacTel explains that in exchange for that opportunity, ILECs committed to provide quality service to all consumers at rates set by regulators and assumed COLR obligations. PacTel asserts that regulators have often set rates based on social rather than economic policies and relied on the promise of a sustainable monopoly to defer recovery and keep rates below cost.[2803] In addition, PacTel contends that regulatory decisions required the ILECs to recover plant and equipment investment in accordance with long depreciation schedules, and thus massive undepreciated plant and equipment remains on the ILECs' books.[2804] PacTel states that its unrecovered investment is $4.7 billion in excess of what it should be using accepted economic depreciation methods. It adds that it does not expect to recover that investment if the Commission adopts the Joint Board's proposal.[2805]

111. As an alternative to providing for legacy cost recovery in the proxy model, PacTel proposes that the Commission establish a separate six-year transition mechanism that would permit ILECs to withdraw amounts from the high cost fund based on their legacy costs. CLECs would receive high cost assistance only from the forward-looking mechanism that would govern all eligible entities.[2806] PacTel further argues that large carriers, as well as small, rural carriers, should be eligible to recover legacy costs during this transition, because they: (1) cannot simply replace lost revenues with revenues from other services because of the mandate that subsidies be explicit; (2) are less able to raise local rates to recover legacy costs than rural companies because of existing price caps; and, (3) have legacy costs per line that are comparable to those of rural carriers, despite a

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[2802] *Id.* at 6. *See also* SBC comments at 11-14.

[2803] PacTel comments at 6.

[2804] *Id.* at 7.

[2805] *Id.*

[2806] *Id.* at 8. *See also* PacTel reply comments at 7-9.

larger subscriber base.[2807] PacTel also contends that should the current proceeding fail to address legacy cost recovery, the Commission should address this issue in the upcoming access reform proceeding or "elsewhere."[2808]

112. Regarding unrecovered investments in existing facilities, U S West recommends subtracting the amount of the investment that has been depreciated from the high cost investment differential described above, freezing this figure, and amortizing it over a short period. U S West suggests treating upgrades as new construction for universal service purposes.[2809] U S West also contends that because the Commission stated in the *Local Competition Proceeding* stated that it would address embedded costs in the *Universal Service Proceeding,* and therefore, the Commission must provide for capital cost recovery in this proceeding.[2810]

113. GTE also contends that the Commission's adoption of a proxy cost measure that systematically underestimates the ILECs' actual cost will amount to a taking of the ILECs' investments for the public good without allowing ILECs a full opportunity for recovery of prudently incurred costs.[2811] GTE recommends that the Commission's methodology provide a mechanism for reconciling and justifying any differences between the cost estimates produced by a proxy model and the ILEC's embedded, prudently incurred costs.[2812] In particular, GTE suggests that the Commission

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[2807] *Id*. at 9.

[2808] *Id*. at 7.

[2809] U S West comments at 14-15.

[2810] U S West reply comments at 2. *See also* Puerto Rico Tel. Co. reply comments at 7 (stating that the Commission in the Local Competition Order indicated that the recovery of embedded costs would be revisited in the Universal Service and access reform proceedings).

[2811] GTE comments at 42.

[2812] *Id*. at 31.

estimate the amount of under-depreciated investment on the ILEC's books today and establish an amortization program pursuant to which these costs would be recovered through a competitively neutral funding mechanism independent of the ILECs' own rates. GTE defends the use of a separate funding mechanism on the grounds that such deferred costs are unique to ILECs and are associated with the ILECs' historical as providers of universal service.[2813]

114. ITC states that the difference between the level of costs incurred in a regulated environment and those incurred in a competitive environment would require carriers to clear certain assets from accounts to operate competitively.[2814] ITC suggests that the Commission should establish a process by which each ILEC could establish the difference between their costs as stated in their audited financial statements related to their investment accounts and their costs as established pursuant to either a TELRIC study or proxy model reflecting these same accounts and then could recover that difference through the universal service support mechanisms over a three-year period. ITC proposes that during this period, the Commission base universal service support on forward-looking costs, in order not to duplicate the recovery of embedded costs. After the three-year period, TELRIC investment costs, based either on each carrier's individual costs or a proxy, should be used for universal service purposes.[2815]

115. Several commenters criticize the ILECs' proposals for treating legacy costs.[2816] NCTA contends that the ILECs' aggregate cost of providing outside plant may have increased based on their accommodation of the demand for services beyond their universal service obligations. For example, NCTA asserts that the ILECs' facilities have been designed and constructed with far more extensive feeder and distribution capacity than would have been required to meet a "one line per household"

[2813] GTE reply comments at 30.

[2814] ITC reply comments at 8.

[2815] *Id*. at 9.

[2816] *See, e.g.,* CPI reply comments at 2; NCTA reply comments at 13; Ohio PUC reply comments at 10-12.

service obligation. NCTA further contends that "neither the Act or any 'regulatory compact' ever guaranteed ILECs the unmitigated right to recover 'legacy costs'." NCTA maintains that the only guarantee a provider was given, under any version of a regulatory compact, was the opportunity to recover a reasonable return on investment and that this opportunity was not "intended to be a blank check to indemnify incumbent LECs from the consequences of their management choices."[2817] To refute the ILECs' constitutional takings argument, NCTA cites *Illinois Bell Tel. Co. v. FCC*,[2818] for the proposition that there is no constitutional right "to include in the rate base all actual costs for investments prudent when made." Thus, NCTA states that the ILECs' takings argument must fail in the absence of a judicial inquiry with respect to specific property, particular estimates of economic impact, and ultimate valuation of an individual ILEC's circumstances.[2819]

116. CPI contends that the support mechanism does not have to compensate ILECs fully for their embedded costs, because ILECs incurred such costs in a monopoly market that did not induce efficient operation.[2820] CPI also states that the Commission need not review the ILECs' embedded costs, because the Federal universal service fund should not by itself provide all of the support that is required in high cost areas.[2821] CPI argues that in establishing the universal service mechanism, the Commission's main purpose is not to keep ILECs whole, but to determine a method to distribute federal universal service support equitably.[2822] Ohio PUC agrees, stating that Congress did not intend for the federal universal service mechanism to become the sole source of reimbursement for each

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[2817] NCTA reply comments at 12.

[2818] 988 F.2d 1254, 1263 (D.C. Cir. 1993)

[2819] NCTA reply comments at 13.

[2820] CPI reply comments at 2.

[2821] *Id*. at 3.

[2822] *Id*. at 3.

carrier's embedded costs unrecovered in current rates.[2823] CPI further contends that the state regulatory bodies are the appropriate fora in which to raise the issue of legacy costs, because that is where prices are set.[2824]

117. Construction Costs. U S West contends that the Commission should assure full recovery of a carrier's cost of constructing facilities to provide universal service at government behest.[2825] Thus, U S West proposes that the universal service support mechanism should fund new, high cost construction through an up-front payment to the constructing carrier that covers the difference between the investment actually made by the carrier and the universal service investment component.[2826] This amount, the high cost investment differential, would be adjusted if there was a mismatch between the asset life and the payment period. Pursuant to U S West's approach, the carrier might continue to receive universal service payments for operational expenses but would not receive further payments for facility construction.[2827] U S West advocates making the ILECs' investment a benchmark that becomes an input to the forward-looking cost calculation.[2828] In addition, except upon extraordinary showing, a second carrier would not be able to receive support for construction costs for a duplicative facility.[2829] MFS asserts that granting ILECs a guarantee that they will recover their investment would not be competitively neutral, because new entrants are

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[2823] Ohio PUC reply comments at 10.

[2824] CPI reply comments at 3.

[2825] U S West comments at 9.

[2826] *Id.* U S West defines the universal service investment component as "the monthly universal service support amount over the depreciable life of an asset." *Id.*

[2827] U S West comments at 11-12.

[2828] *Id.* at 13.

[2829] *Id.*

building facilities without such a guarantee.[2830]

2. Determination of Forward-Looking Economic Cost for Non-Rural Carriers

118. General. Many commenters support the Joint Board's recommendation to use a proxy model to calculate the cost of providing supported services.[2831] ALTS agrees with the Joint Board that a proxy model is the best method to estimate forward-looking costs.[2832] LCI states that the use of a forward-looking proxy model is most consistent with the newly competitive local service environment.[2833] AirTouch and CompTel concludes that proxy models are competitively neutral, promote efficiency, and are easy to administer.[2834] The Maryland PSC supports the use of a proxy model for the Federal universal service mechanism but argues that states must be able to design their own mechanisms by which to determine the amount of state universal service.[2835]

119. Some commenters, however, oppose the use of a proxy model to calculate the cost of providing the supported services.[2836] Roseville Tel. Co. asserts that the models are technically flawed and that the Commission should abandon them.[2837] Western Alliance objecting to the use of proxies,

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[2830] MFS reply comments at 8-11.

[2831] *See, e.g.,* ITI comments at 2; MFS comments at 20; ACTA reply comments at 5.

[2832] ALTS comments at 7.

[2833] LCI comments at 7.

[2834] AirTouch comments at 23; CompTel comments at 10.

[2835] Maryland PSC comments at 7.

[2836] *See, e.g.,* Ameritech comments at 11; CNMI comments at 38; CWA reply comments at 14.

[2837] Roseville Tel Co. comments at 2, 10.

asserts that the proposed models are not sufficiently tested or verifiable at this time.[2838] Tularosa Basin Tel. and RT claim that a proxy model should not be used because a proxy model calculation will be outdated as soon as it is released, because of constant changes in technology.[2839]

120. Several commenters opposing the use of a proxy model claim that a model cannot assess the true costs of providing service. GTE states that the models use simple rules of thumb and construct a hypothetical network for a static 100 percent demand level service provider in an environment free uncertainty.[2840] Several commenters argue that support should be based on the carrier's embedded costs.[2841] ITC and SBC contend that because proxy models calculate support based on the costs of a hypothetical network, the costs derived from the proxy model will not be sufficient to support the costs of a real world network, in violation of section 254.[2842] Disagreeing, AirTouch and the Ohio PUC state that use of a proxy model will provide sufficient support for carriers.[2843]

121. Some commenters suggest that while a proxy model should not be used to determine the amount of support that a carrier receives, it could be used to identify high cost areas.[2844] GTE and PacTel suggest that a proxy model be used to apportion embedded costs to geographic areas smaller than the current study areas. They contend that this approach satisfies the need to provide

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[2838] Western Alliance comments at 32-33.

[2839] RT comments at 2-3; Tularosa Basin Tel. comments at 5.

[2840] GTE model reply comments at 9.

[2841] *See, e.g.,* GSA comments at 5; Minnesota Coalition comments at 18; USTA comments at 12.

[2842] ITC reply comments at 5; SBC reply comments at 11.

[2843] AirTouch comments at 23; Ohio PUC reply comments at 9.

[2844] *See* TCA comments at 5; USTA comments at 12.

sufficient support and target that support to high cost areas that cannot be identified through ILEC cost records because there are no cost figures for small geographic areas such as CBGs or census blocks.[2845] GSA agrees that proxy models could be used when carrier's embedded costs cannot be determined for a particular geographic area.[2846]

122. Criteria for Evaluation. Several commenters support the eight criteria for evaluating proxy models set forth by the Joint Board.[2847] Other commenters, however, suggest changes or additions to the criteria. ALTS suggests that the fifth criterion, which concerns the estimation of costs for all subscribers in a geographic area,[2848] should include the principle that "any model must reflect only the costs associated with the revenues against which they will be measured."[2849] MFS and Washington UTC suggest adding a criterion that the economic costs estimated by the model should not exceed the embedded costs of the ILEC serving that area.[2850] MFS and RTC also recommend adding that the model must reflect realistic engineering practices.[2851]

123. PacTel and RTC/GVNW assert that a model's assumption must be internally consistent. They contend that because they purport to calculate the forward-looking costs of a new entrant, the proxy models must use forward-looking assumptions regarding such cost factors as a

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[2845] GTE comments at 57; PacTel reply comments at 6.

[2846] GSA comments at 7.

[2847] *See, e.g.,* Ad Hoc comments at 6; GSA comments at 6; Sprint comments at 5.

[2848] *See* Recommended Decision, 12 FCC Rcd at 233.

[2849] ALTS comments at 8.

[2850] MFA comments at 20-21; Washington UTC comments at 4.

[2851] MFS comments at 23; RTC comments at 6.

carrier's market share, cost of capital, debt-to-equity ratio, and depreciation lives.[2852] PacTel contends that the currently filed proxy models violate the consistency requirement because they assume 100 percent market share for the carrier being modelled and use inputs for cost of capital, fill factors, debt-to-equity ratios, and depreciation lives of a carrier with 100 percent of the market rather than of one in a competitive market.[2853] RTC/GVNW also state that market share is necessary input to a model.[2854]

124. Several commenters state that the criteria should include some requirement for validation or verification of the results of the model.[2855] SBC suggests adding as a criterion that "the model should be able to replicate the costs experienced by incumbent LECs if the input variables reflect the equivalent values of those LECs."[2856] SBC contends that unless the proxy model closely replicates the actual cost of providing the supported services, the model's use will not result in predictable or sufficient support, as required by section 254.[2857] GTE states that a model's accuracy can only be verified by comparing its output to existing embedded cost information.[2858] PacTel contends that in order to comply with section 254, a proxy model must: (1) allow ILECs to recover their legacy costs; (2) predict forward-looking costs based on actual ILEC cost information; (3) use consistent cost and demand figures; (4) include joint and common costs; and (5) be auditable, verifiable, and include mutable data inputs for relevant variables.[2859] MFS, on the other hand,

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[2852] PacTel post-workshop comments at 3; RTC/GVNW post-workshop comments at 12.

[2853] PacTel post-workshop comments at 3.

[2854] RTC/GVNW post-workshop comments at 4, 7.

[2855] *See, e.g.,* GTE comments at 28; RTC comments at 4; TDS Telecom comments at 21.

[2856] SBC comments at 28-29.

[2857] *Id.* at 29.

[2858] GTE reply comments at 26.

[2859] PacTel comments at 6.

contends that the embedded costs of the ILEC should not be used to validate the results of the proxy models because those costs include of the ILEC's inefficiencies and are not the costs of an efficient, new entrant.[2860]

125. AT&T/MCI suggest that of the possible methods of verification, a comparison of model results to an engineering study of existing networks holds the most promise. According to AT&T/MCI, verification would consist of having an engineer review a selected sample of CBGs to check that current best engineering practices were used to design the network.[2861] RTC/GVNW agrees that any validation must begin at the physical-facilities level, with actual engineering studies.[2862] GTE and Sprint also agree that independent engineering consultants should be used to verify the models' engineering assumptions.[2863]

126. Proposed Models: General. Three models were submitted to the Commission for consideration in this proceeding. The Benchmark Cost Proxy Model was submitted by Sprint, PacTel, and U S West.[2864] The Hatfield Model 3.1 was developed by Hatfield Associates, Inc. under the sponsorship of AT&T and MCI.[2865] The New Jersey Advocate submitted the Telecom Economic

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[2860] MFS model comments at 21-22.

[2861] AT&T/MCI model comments at 10.

[2862] RTC/GVNW post-workshop comments at 14.

[2863] GTE model comments at 36; Sprint model comments at 8.

[2864] Letter from Alan Ciamporcero, Pacific Telesis, Warren Hannah, Sprint, and Glenn Brown, U S West, to Office of the Secretary, FCC, dated Jan. 31, 1997 (BCPM Jan. 31 Submission).

[2865] There have been several different versions of the Hatfield model. *See* Letter from Richard N. Clarke, AT&T, to William F. Caton, FCC, dated Feb. 28, 1997 (Hatfield Feb 28 Submission), att. at 5-7.

Cost Model (TECM), which was developed by Ben Johnson Associates, Inc. (Ben Johnson).[2866]

127. BANX notes that the Hatfield and the BCM2/BCPM models produce dramatically different results, even though they supposedly are modeling the same network and the same geographic level, and thus questions the use of either model for calculating the costs of the supported services.[2867] Ameritech agrees, arguing that the current models are flawed, untested, and produce conflicting and unreliable results.[2868] Many other commenters contend, however, that the key difference between the models is the inputs used by the models' proponents.[2869]

128. NCTA and Teleport assert that the Hatfield and BCPM models do not fully reflect the economies of scale enjoyed by an ILEC. NCTA asserts that the appropriate method for recognizing economies of scale is to take into account the difference between the stand-alone costs of a network constructed for just the supported services and the stand-alone cost of a network constructed for all services.[2870] Similarly, Teleport contends that the Hatfield and BCPM models do not adhere to the principle of TSLRIC, because they do not estimate the costs that would be avoided if a provider stopped offering basic service yet continued to offer all its other services.[2871]

129. PacTel contends that if the Hatfield and the BCPM use forward-looking costs, they

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[2866] Letter from Jonathan Askin, Division of the Ratepayer Advocate, State of New Jersey, to Office of the Secretary, FCC, dated Jan. 6, 1997 (TECM Jan. 6 Submission).

[2867] BANX reply comments at 12-13.

[2868] Ameritech model comments at 1.

[2869] *See, e.g,* ALTS post-workshop comments at 3; Aliant model comments at 2.

[2870] NCTA pre-workshop comments at 4-5.

[2871] Teleport comments at 5-6.

should also use forward-looking demand.[2872] NCTA agrees, stating that the use of cost factors that are derived from historical information, such as ARMIS data, violates the principles of a forward-looking cost model.[2873] PacTel claims that while the models currently calculate costs for a carrier with 100 per cent market share, ILECs will lose market share, and therefore their forward-looking unit cost will be higher than contemplated by the models.[2874] MCI disagrees, arguing that if the new entrants use the ILEC's unbundled network elements to provide support, the ILEC will not actually have any decline in the use of its network and the unbundled network element prices will cover the TELRIC of the loop. MCI also contends that PacTel's argument ignores market growth, and that even if an ILEC loses customers it may still see increased minutes of use of its network.[2875]

130. Most commenters agree that the smaller the geographic unit used by the model the more precise will be the cost estimates it generates. GTE contends that study areas, density zones, exchanges and wire centers are simply too large because of the potentially significant variation in the costs of serving different customers in those areas.[2876] Some commenters assert that the CBG should be the geographic unit of analysis for the models.[2877] Other commenters, however, argue that smaller areas, such as census blocks (CBs) or grid cells,[2878] should be used, particularly in rural areas with

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[2872] PacTel comments at 14.

[2873] NCTA pre-workshop comments at 5.

[2874] PacTel comments at 14.

[2875] MCI reply comments at 4.

[2876] GTE model comments at 43.

[2877] *See* Sprint model comments at 12; Texas PUC model comments at 6.

[2878] The Bureau of the Census defines "census blocks" as "small areas bounded on all sides by visible features such as street, roads, streams, and railroad tracks, and by invisible boundaries such as city, town, township, and county limits, property lines, and short, imaginary extensions of streets and roads." Bureau of the Census, United States Department of Commerce, 1990 Census of population and Housing, A-3. It further

very low population densities.[2879] AT&T/MCI, while agreeing that the use of smaller areas can lead to more detailed cost estimates, warn that use of such areas makes the model more complex and requires more powerful computers, and may lead to a false sense of precision.[2880]

131. According to the commenters, a major problem with the way the models work is that they presume an even distribution of households across the geographic unit.[2881] BANX states that while a model's assumption that households are evenly distributed throughout a CBG may be reasonable for some parts of the country, it is not descriptive of areas in the Northeast and Mid-Atlantic. BANX claims that in those areas of the nation, the CBG is shaped irregularly, with many customers clustered relatively close to the central office, while other are far away. Thus, according to BANX, averaging costs by CBGs does not accurately group customers for which the cost of service is high or low.[2882]

132. Commenters also complain that the models do not reflect the true line counts within a CBG or for a particular wire center.[2883] GTE notes that the models use the number of households in each CBG to determine residence line counts. It argues that this approach ignores differing

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defines a "census block group" as "generally contain[ing] between 250 and 550 housing units, with the ideal size being 400 housing units." *Id*. at A-4. A "grid cell" is an approximately four-tenths of a square mile (3,000 ft by 3,000 ft). *See* Recommended Decision, 12 FCC Rcd at 222.

[2879] *See, e.g.,* BellSouth model comments, att. at 1; RTC model comments at 10; USTA model comments at 20.

[2880] AT&T/MCI model comments at 12-13.

[2881] *See* Aliant model comments at 3; RTC model comments at 10.

[2882] BANX model comments at 12-13.

[2883] *See, e.g.,* Ameritech model comments at 19.

penetration levels among CBGs.[2884] SBC states that when it compared the lines counts for its operations in Texas to the counts in the models, it found the models' estimated line count was different by more than 10 percent for almost one-half of its approximately 500 wire centers in Texas.[2885] GTE and Sprint note that the ILECs have line counts for each wire center, and Sprint urges the Commission to obtain those data through an information request to the ILECs.[2886]

133. The commenters all note that the model proponents are having difficulty acquiring accurate inputs for switch costs because of the lack of public information on switch costs.[2887] Aliant and Sprint suggest that the Commission should also send a data request to ILECs and switch vendors to obtain accurate switch costs information.[2888] BellSouth and GTE recommend using the Bellcore Switch Cost Information System (SCIS) to obtain switch cost information for use in the models.[2889]

134. Some commenters, including the ILECs, contend that the models should use inputs for such factors as cost of capital and debt-to-equity ratios that reflect a competitive market, and not the historical rates for ILECs.[2890] ALTS contends that the models should not use the cost of capital of an average new entrant because the ILECs face less risk than a new entrant.[2891] NCTA asserts that the

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[2884] GTE model comments at 45.

[2885] SBC model comments at 20.

[2886] GTE model comments at 46; Sprint model comments at 13.

[2887] *See, e.g.,* AT&T/MCI model comments at 19; NCTA reply comments at 41;

[2888] Aliant model comments at 6; Sprint model comments at 9.

[2889] BellSouth model comments, att. 1 at 3; GTE model comments at 84.

[2890] *See, e.g.,* Aliant model comments at 7; RTC model comments at 14; USTA model comments at 21.

[2891] ALTS post-workshop comments at 2.

competition posed by resellers presents no risk to the ILEC's recovery of their capital.[2892]

135. Commenters also disagree on the depreciation rates used as model inputs. BANX states that proxy model advocates cannot "have it both ways," by basing costs on an ideal competitive network, while basing depreciation on a method that makes sense only for a rate-of-return regulated monopoly. BANX asserts that the models must employ accelerated depreciation methods.[2893] Other commenters agree that depreciation factors used by competitive firms should be used in the models.[2894]

136. Some commenters note that the proposed models do not include wireless technologies. APC argues that the proposed models are flawed because they do not include wireless alternatives.[2895] CTIA and Nortel agree, contending that the proposed proxy models therefore are not competitively neutral.[2896] APC and CTIA claim that the failure to acknowledge that wireless technologies may be less expensive in some circumstances will lead to an artificially inflated fund and, in consequence, higher assessments for contributing carriers.[2897]

137. BCPM: Description of the Model. According to this model's proponents, the BCPM is a combination of, and improvement to, the best attributes of the BCM2 and CPM.[2898] The

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[2892] NCTA model reply comments at 13.

[2893] BANX model comments at 11.

[2894] *See, e.g.,* Aliant model comments at 7; MFS model comments at 30; GTE model reply comments at 17.

[2895] APC reply comments 3.

[2896] CTIA comments at 6; Nortel comments at 5.

[2897] CTIA comments at 7; APC reply comments at 3.

[2898] BCPM Jan. 31 Submission at 2. Because it became a joint sponsor of the BCPM, PacTel did not submit the CPM for our consideration in this proceeding. *See* Letter from Alan F. Ciamporcero, Pacific Telesis, to John S. Morabito, FCC, dated Jan. 7, 1997.

proponents state that the BCPM differs from the BCM2 in two major ways.[2899] First, the BCPM inputs are different from those of the BCM2. Second, the structure of the model has been changed to provide more clarity to the user concerning the use of input areas and the purpose of calculations.[2900]

138. According to its proponents, the BCPM is a geographically-based high level engineering model of a hypothetical local network that can be used to estimate benchmark costs for providing residential and business basic telephone service in small geographic areas. Small areas are used because the cost of service varies greatly even within the geographic area served by a single wire center. The BCPM assumes that all plant is installed at a single point in time throughout the nation.[2901] The model assumes the existing central office locations and boundaries throughout the county. Those data are entered into a geographic information system that associates each CBG is associated with its central office based on the centroid of the CBG. That information, plus the relative physical locations of households and central offices and CBG information are entered into the model. With this information, the BCPM designs a local exchange network using a tree and branch topology.[2902]

139. The proponents state that the BCPM designs a voice grade network using state-of-the-art currently available technology. The model's default values and parameters define a network capable of providing basic single-party voice grade service that allows customers to use currently available data modems for dial-up access to information services. The BCPM designs the network to

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[2899] For a discussion of the BCM2, its predecessor, the BCM, and the CPM, *see* Recommended Decision, 12 FCC Rcd at 217-225.

[2900] BCPM Jan. 31 Submission, att. 9 at 114.

[2901] *Id.* at 108.

[2902] *Id.* at 109.

eliminate problems associated with providing voice grade service over loaded loop plant.[2903]

140. The BCPM has three modules: (1) the investment module, used to calculate network investments; (2) the capital cost module, used to calculate capital cost factors and expenses; and (3) the reports module, which produces reports on either a CBG, CLLI,[2904] state or company basis.[2905] The investment module determines the investment required for the network. The module develops investment costs for the feeder and distribution by modeling a network based on the location of customers, as determined through CBG data, and the location of serving wire centers. As does the BCM2, BCPM assumes that households within a CBG are uniformly distributed. In rural areas, the modelled size of the CBG is reduced to reflect the removal of areas that do not have road access, based on the assumption that households are located within 500 feet of a road.[2906] Costs incurred for distribution plant include the cost of the cable itself, as well as its installation and structure, and of the network interface device (NID), drop wire, drop terminal, splicing, and engineering.[2907] Rather than the six zones used in the BCM2, the BCPM uses seven different density groups to determine for a given CBG the mixture of aerial, buried, and underground plant, feeder fill factors, distribution fill factors, and the mix of activities in placing plant, such as aerial placement or burying, and the cost

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[2903] *Id.* at 111. A loaded loop is one equipped with loading coils to add induction in order to minimize amplitude distortion. A loading coil is an induction device generally used with loops longer than 18,000 feet, that compensates for wire capacitance and boosts voice grade frequencies. *See* Newton's Telecom Dictionary (7th ed. 1994) at 611-12.

[2904] CLLI refers to a system of codes used by Bellcore to identify the location of telephone facilities and equipment.

[2905] BCPM Jan. 31 Submission, att. 9 at 112-13.

[2906] *Id.* at 117.

[2907] *Id.* at 119.

per foot to install plant.[2908] In order to provide adequate transmission capabilities for fax and dial-up modems, the model sets maximum loop lengths for copper at 12,000 feet for both feeder and distribution, which eliminates the need for loading coils.[2909] The model uses only digital switching technology, and the cost entries are based on results from a data request that the proponents sent to ILECs.[2910]

141. After the model defines the investment required for the network, the capital costs and expenses are calculated using the capital cost module. The BCPM has been designed to allow inputs for depreciation, cost of capital, and tax rates for nineteen different plant accounts, including motor vehicle, furniture, land, building, poles, and conduit. The estimates of plant lives are used to develop the depreciation rates. The lives, salvage, and costs of removal are based upon a ILEC industry data survey requesting forward-looking values. The module also incorporates the separate cost of debt and equity rates, along with the debt-to-equity ratio. Once the annual capital cost factors are developed, they are multiplied by the investment to arrive at yearly capital costs.[2911] The operating expenses are expressed as an expense per line, based on ILEC estimates of forward-looking expenses per line for each Class A expense account.[2912]

142. The BCPM's proponents state that the model includes many changes from the BCM2

[2908] *Id.* at 120.

[2909] *Id.* at 111-12.

[2910] *Id.* at 121.

[2911] BCPM Jan. 31 Submission, att. 9 at 132-33.

[2912] *Id.* at 133. The term Class A expense accounts refers to the expense accounts of Class A companies, those companies with annual revenues from regulated telecommunications that are equal to or above the indexed revenue threshold. *See* 47 C.F.R. §§ 32.11(a)(1), 32.11(b), 32.5999(h).

and CPM.[2913] For instance, the BCPM associates customers with the serving wire center for the centroid of the CBG, rather than with their closest wire center. The density zone classifications from the CPM are used in the BCPM, because they are more evenly distributed and more closely matched to currently available sizes for plant, such as cable sizes, than those used in BCM2.[2914] Moreover, the BCPM expands the number of accounts with annual charge factors so that there is now a separate annual charge factor for each of the applicable USOA plant accounts.[2915] The BCPM now allows for the sharing of various structures, such as poles and conduits, and sharing percentages are established by density zone.[2916] The BCPM uses actual data the proponents requested from the ILECs and thus reflect current ILEC purchases of central office plant and outside plant, cable, and equipment.[2917] For example, the costs of a switch used in the model are derived from a switch cost curve that the proponents developed based on the data that they collected from various ILECs.[2918]

143. Sprint states that the 11.4 percent cost of capital, the default value for this parameter, represents the cost incurred by an efficient entrant offering basic service in a competitive market environment. In addition, Sprint states that the 11.4 percent cost of capital is a conservative compromise between the Commission approved 11.25 percent and the estimated figure of 11.8 percent by Dr. James Vander Weide of Duke University.[2919]

[2913] The BCM2, it predecessor the BCM, and CPM are discussed in the Recommended Decision, 12 FCC Rcd at 217-25.

[2914] BCPM Jan. 31 Submission at 3.

[2915] *Id.* at 4. *See* 47 C.F.R. §§ 32.2000 *et seq.*

[2916] *Id.* at 5.

[2917] *Id.* at 9.

[2918] *Id.* at 5.

[2919] Sprint model comments at 18.

144. Comments on the BCPM. The Ohio PUC notes that it has selected the BCM and any subsequent revisions, such as the BCPM, to calculate of the costs for determining high cost support for its state universal service mechanism. The Ohio PUC believes that the BCM2 meets the criteria set forth by the Joint Board more fully than the Hatfield 2.2.2.[2920] RUS states that the network modeled by BCPM has the architecture on which RUS loans are based in rural areas, and RUS considers that architecture to be efficient and capable of providing the supported services.[2921]

145. RUS asserts that BCPM's assumption that all households are within 500 feet on a road is not true in many rural areas.[2922] RUS also states that in analyzing the model, it found that the more new plant that is incorporated in a carrier's network at one time, the more that BCM2's cost estimates fell below the RUS estimated cost. It found that while there is a high correlation between BCM2 and RUS estimates of total plant in service (TPIS) for projects that added new facilities comprising less than thirty percent of the amount of pre-existing facilities, there is a much lower correlation for projects with over a 100 percent increase in TPIS.[2923] According to RUS, this suggests that BCM2 more accurately estimates the costs for areas that need little upgrade to provide the supported services than it does for areas that need moe investment.[2924]

146. Nortel challenges the principle that the BCPM proponents used to cap line costs at $10,000.00 per line.[2925] The cap level rests on the assumption that above that level wireless

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[2920] Ohio PUC comments at 7.

[2921] RUS model reply comments at 2-3.

[2922] RUS model reply comments at 3.

[2923] RUS model comments at 5. RUS explains that it compared BCM2 cost estimates with data on 99 RUS loans made in the past two years. *Id.*

[2924] *Id.*

[2925] Nortel comments at 5.

technologies would be used,[2926] which Nortel asserts does not accurately represent the costs of wireless loops. Nortel claims that recent deployments of fixed wireless access systems show declining costs for wireless loops.[2927] Stating that most of the carriers that borrow from it have some loops that cost over $10,000.00 and that it has found only a few instances where wireless loop plant is cheaper than wireline, RUS asserts, however, that the $10,000.00 cap is unrealistic.[2928] RUS claims that the most expensive loops are usually so far apart that multiple wireless systems would be required with each serving only a few subscribers, making them economically impractical.[2929] Asserting that the cost of wireless loops may be greater than the $10,000.00 cap used by BCPM, AT&T/MCI state that use of this cap may underestimate the cost of some loops.[2930]

147. Hatfield: Description of the Model. According to its proponents, Hatfield 3.1 is capable of estimating the forward-looking economic costs of (1) UNEs, based on TELRIC principles; (2) basic telephone service, as defined by the Joint Board in the Recommended Decision; and (3) carrier access to, and interconnection with, the local exchange network.[2931]

148. Its proponents state that Hatfield 3.1 constructs a "bottom up" estimate of costs based on detailed information concerning customer demand, network component prices, operational costs, network operations criteria, and other factors affecting the costs of providing local service. Hatfield

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[2926] The BCPM use a cap of $10,000.00 of investment per loop as an estimate of when it is economical to replace wireline loops with wireless. *See* Sprint model comments at 12. The BCPM produces reports that show the cost per line when the cap is used, and when the costs of loops in excess of $10,000.00 is used.

[2927] Nortel comments at 5.

[2928] RUS model reply comments at 3.

[2929] RUS model comments at 4.

[2930] AT&T/MCI model comments at 13.

[2931] Hatfield Feb. 28 Submission at 4.

3.1, according to it proponents, builds an engineering model of a local exchange network with sufficient capacity to meet total demand and to maintain a high level of service quality.[2932]

149. Hatfield 3.1 contains four modules: (1) the distribution module, which calculates distribution distances and investment; (2) the feeder module, which calculates feeder distances and investment; (3) the switching and interoffice module, which calculates switching, signaling, and interoffice investment; and (4) the expense module, which calculates the cost of capital, expenses, UNE unit costs, universal service requirements, and access costs.[2933] The inputs for the model are contained in work files and include: (1) demographic, geographic, and geological characteristics of CBGs, which are used to locate geographically the number of customers requiring service, the wire center that serves them, and the types of terrain within the CBG; (2) interoffice distances between end office, tandems, and signaling transfer points (STPs), used in estimating route miles required for interoffice transmission facilities; (3) 1995 ARMIS data reported by LECs, which provide investment, traffic, and expense information; and, (4) adjustable inputs that allow the user to set carrier or location specific parameters, such as labor costs.[2934] The inputs include the prices of various network components, with the associated installation and placement costs, as well as various capital cost parameters.[2935]

150. The distribution module configures the portion of the network from the serving area interfaces (SAIs) to the customer's premises. The module determines the lengths and diameters of distribution cable, the associated structures, such as poles and trenching, and the number of terminals, splices, drops, and NIDs required to provide service in the CBG. The selection of whether to serve the CBG using copper wires or fiber optic cable is made according to an adjustable parameter that

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[2932] *Id.* at 4.

[2933] *See id.* at 18.

[2934] *Id.* at 18-19.

[2935] *Id.* at 4.

specifies the maximum feeder distance to the CBG beyond which fiber is to be installed.[2936] The default setting is at 9,000 feet.[2937] Once the module has determined the distribution elements required, it calculates the investment costs associated with those elements, using as inputs the price for each such element.[2938]

151. The feeder module configures the portion of the network from the wire center to the SAIs. The feeder module uses the information from the distribution module to determine the size and type of cable required to reach the SAIs located in each CBG and also of supporting structures, such as poles, conduit, and manholes. The feeder module then calculates the investment costs associated with those elements using the price of each such element.[2939]

152. The switching and interoffice module computes investment costs required for end-office switching, tandem switching, signaling, and interoffice transmission facilities. It determines the required line, traffic, and call processing capacity of switches based on line totals by customer type for the serving wire center, and based on ARMIS-derived traffic and calling volume inputs. The switching and interoffice module also determines capacity and distances of interoffice transmission facilities required to provide interoffice transport.[2940]

153. The expense module uses the network investment information generated by the other modules to calculate the monthly costs for universal service, UNEs, and carrier access, including capital costs associated with the investments, such as depreciation, and the costs of operating the network, including maintenance, network operations, and general support expenses. Information on

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[2936] Hatfield Feb. 28 Submission at 19.

[2937] *See id.* at 35.

[2938] *Id.* at 19.

[2939] *Id.*

[2940] *Id.* at 20.

network operating and maintenance expenses is derived from ARMIS and other sources. The expense module produces reports showing the key outputs of the model, including the cost of providing universal service. While the outputs are based on investments calculated at the CBG level, the results may be displayed by individual wire center or by CBG.[2941]

154. The model's proponents state that Hatfield 3.1 contains a number of significant changes from Hatfield 2.2.2.[2942] Among those changes, the number of density zones was increased from six to nine.[2943] Moreover, each CBG is now assigned to a wire center based on an analysis of the NPA-NXXs serving the CBG.[2944] Estimates of the number of residence and business lines per CBG have been improved by, for example, accounting for differences in the demand for residence lines based on the age-income profile of the CBG.[2945] According to the model's proponents, the switching system model is more sophisticated than that used in Hatfield 2.2.2 and now treats BOCs and large ILECs separately from rural ILECs. Depreciation expense calculation has been changed to reflect the use of investment levels at mid-year, rather than at the end of the year, and to adjust for net salvage value.[2946]

155. According to the proponents, Hatfield assigns joint and common costs by adding 10.4

[2941] BCPM Feb. 28 Submission at 20.

[2942] *Id.* at 8. For a discussion of the Hatfield 2.2.2, *see* Recommended Decision, 12 FCC Rcd at 225-29.

[2943] The highest density zone in Hatfield 2.2.2 -- greater than 2,500 lines per square mile -- has been broken into three zones for Hatfield 3.1 -- 2,550-5,000, 5,001-10,000, and more than 10,000 lines per square mile -- to better differentiate dense suburban from dense downtown areas. The second lowest density zone in Hatfield 2.2.2, 5-200 lines per square mile, was divided into two zones, 5-100 and 101-200 lines per square mile, to provide more fine-grained distinctions within low density areas. Hatfield Feb. 28 Submission at 8.

[2944] NPA-NXX is a designation for the area code (NPA) and central office (NXX) numbers.

[2945] *Id.* at 8.

[2946] *Id.* at 9.

percent to all other expenses. This mechanism is intended to capture only corporate operations expenses, and is based on an econometric study of the relationship of joint and common costs and direct expenses. Hatfield also includes general support expenses, billing, bill inquiry, and white pages listings. Its proponents argue that this approach assigns a reasonable level of overhead expenses to universal service.[2947]

156. Comments on the Hatfield Model. Several parties endorse the use of the Hatfield model.[2948] Other commenters, however, including most ILECs, oppose the Hatfield model.[2949] Some commenters claim that the model is biased to produce low costs because the model's proponents would benefit from a smaller universal service surcharge and lower interconnection rates.[2950] GTE notes that several state commissions have rejected the Hatfield model and claims that no state commission has embraced or approved the underlying theory, design, or assumptions of the model.[2951]

157. GTE asserts that the Commission cannot adopt the Hatfield model, because the proponents have not adequately documented the basis for choosing the default inputs and assumptions.[2952] RTC/GVNW asserts that the Hatfield model is internally inconsistent because it uses ILEC embedded cost of capital and depreciation, but does not use embedded cost data.[2953]

[2947] AT&T/MCI model comments at 24.

[2948] *See, e.g.,* ALTS comments at 7; LCI comments at 8; ACTA reply comments at 5.

[2949] *See, e.g.,* SBC comments at 28; RTC reply comments at 6.

[2950] *See, e.g.,* U S West reply comments at 14; BANX model comments at 8 SBC model reply comments at 6.

[2951] GTE comments, att. 2 at 5-6.

[2952] GTE model reply comments at 21.

[2953] RTC/GVNW post-workshop comments at 18.

BANX, SBC, and USTA contend that many of the flaws in Hatfield 2.2.2 remain on Hatfield 3.0, including (1) unreasonably long, Commission-prescribed depreciation lives that are unrealistic in a competitive environment; (2) a lower cost of capital than the Commission prescribed in a monopoly environment; (3) expenses based on historical ARMIS expense/investment ratios applied to downward-adjusted investment levels; and (4) a network design based on the economies of scale of a monopoly provider with only new facilities perfectly sized to current demand.[2954] BANX argues that these flaws ensure that the costs calculated by the Hatfield model are far below the costs that either the ILEC or a new entrant would incur to provide telephone service.[2955]

158. RUS states that the Hatfield model loop plant with loaded coils. RUS asserts that ILECs are phasing out such loops and that no new entrant would build outside plant based on that antiquated technology. RUS also state that its loans require non-loaded loops, and claims that loaded loops cannot support the bandwidth for voice grade service recommended by the Joint Board.[2956]

159. Many commenters disagree with the structure sharing assumptions in the Hatfield model.[2957] Aliant states that in rural areas there will be minimal sharing, due to the distinct design parameters and cost associated with facility placement for each type of utility.[2958] RTC/GVNW contend that in rural areas carriers often cannot share structures, because there are no cable companies and the electric company often uses a different construction method than the phone

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[2954] BANX model reply comments at 4; SBC model reply comments at 6-7; USTA model reply comments at 8.

[2955] BANX model reply comments at 4.

[2956] RUS model reply comments at 4.

[2957] *See, e.g.*, NCTA pre-workshop comments at 3; BellSouth model comments, att. 1 at 3; SBC model comments at 23.

[2958] Aliant model comments at 6.

company.[2959] GTE agrees that there is limited sharing. GTE states that it pays 97.5 percent of the cost for buried plant its uses, in other words, other utilities only cover about 2.5 percent of those costs. For under ground plant GTE pays 95-99 percent, and 57-61 percent for aerial plant.[2960] Gabel suggests that for buried cable close to 100 percent of costs should be assigned to telephone, rather than the 33 percent used in the Hatfield model.[2961]

160. The model's proponents claim that in many cases criticism of the Hatfield model is misplaced, because that criticism actually relates to the default inputs used in the model. The proponents argue that because the user can adjust the inputs disagreements about the accuracy of the default inputs are no reason to discard the model.[2962]

161. TECM: Description of the Model. The New Jersey Advocate, who submitted the TECM, used that model in a regulatory proceeding in New Jersey in which the BCM2 and Hatfield 2.2.2 were also under consideration.[2963] The TECM has also been filed in intrastate regulatory proceedings in Colorado, Idaho, Mississippi, North Carolina, and Pennsylvania.[2964]

162. According to its developer, Ben Johnson, the TECM estimates the cost of local telephone networks. It can be used to estimate the costs services such as local exchange and UNEs. The model can calculate different economic measures of cost, including: (1) long-run average cost, (2) TSLRIC, (3) TELRIC, (4) long-run marginal cost of a service, and (5) long-run marginal costs of

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[2959] RTC/GVNW post-workshop comments at 19.

[2960] GTE model comments at 72.

[2961] Gabel model comments at 22.

[2962] MCI reply comments at 8.

[2963] New Jersey Advocate pre-workshop comments at 1.

[2964] *Id*. at 3.

an UNE. The TECM can analyze and compare costs under both monopoly conditions and competitive market conditions.[2965] The model develops costs at the wire center level, although those costs can be aggregated to the study area or state level.[2966] The TECM is usually run using the loop length data of existing wire centers; thus it is a "scorched node" model.[2967] The user can modify numerous input values and assumptions, such as debt-to-equity ratios, economic lives, and facility utilization and sharing factors.[2968] The model will also develop stand-alone costs of service to different market segments, such as residential and business customers.[2969]

163. Subsequent to the staff workshops on proxy models, the New Jersey Advocate submitted a revised version of the TECM in response to comments made by the workshop participants.[2970] The changes to the model include modifications to several financial and technical assumptions. For example, new input cells were added for the loaded labor cost per hour section. These new cells allow the user to specify the additional cost of special equipment needed to perform such tasks as pole installation, trenching, and manhole installation.[2971] The user can now specify

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[2965] *See* Ben Johnson Associates, Inc, Telecom Economic Cost Model, User Documentation (Jan. 7, 1997) at 1. (Ben Johnson Jan. 7 User Documentation)

[2966] *Id.* at 4-5.

[2967] *Id.* at 2. A "scorched node" model is one that models the network using the existing wire centers. A "greenfield" model, by contrast, does not use the existing wire centers, but models a completely new network, including new wire centers.

[2968] Ben Johnson Jan. 7 User Documentation at 4.

[2969] *Id.* at 8.

[2970] Comments of the New Jersey Division of the Ratepayer Advocate Concerning Improvements to the Telecom Economic Cost Model (filed Jan. 31, 1997) (New Jersey Advocate Jan. 31 *ex parte*) at 1.

[2971] *Id.* at 2.

different utilization factors for feeder, feeder/distribution, and distribution cable.[2972] In addition, some of the default values were modified. For example, the economic life of switching was reduced to 12 years.[2973]

164. Comments on the TECM. The New Jersey Advocate claims that the TECM offers some important advantages over the BCM2/BCPM and Hatfield models. According to the New Jersey Advocate, with the TECM, unlike the BCPM and Hatfield models, the user can easily develop cost estimates covering a wide range of different scenarios to reflect differences in the customer characteristics, network configurations, market shares, and whether the carrier is serving areas close to or distant from the wire center.[2974] The New Jersey Advocate states that the TECM offers a more detailed array of financial and technical inputs than the other models. It notes, for example, that with the TECM, a user can vary the labor costs per hour to match the labor costs in a particular state. Also, the number of hours or minutes required to perform specific functions can be varied based upon climate, terrain, and other relevant factors applicable to a particular wire center.[2975] The New Jersey Advocate contends that ability of TECM to develop more precise cost estimates will be invaluable in expanding the use of the proxy models to calculate support for rural carriers and carriers serving extreme areas such as Alaska.[2976]

165. ALTS contends that some of the assumptions used in the TECM may suggest alternate input values and for use in the BCPM and the Hatfield models. ALTS is concerned, however, that the TECM has not been as rigorously documented or tested as the other two models and may require

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[2972] *Id.* at 3.

[2973] *Id.* at 4.

[2974] New Jersey Advocate post-workshop comments at 1.

[2975] New Jersey Advocate pre-workshop comments at 2; New Jersey Advocate Jan. 31 *ex parte* at 5.

[2976] New Jersey Advocate post-workshop comments at 2.

entry of special data, many of that may not be publicly available.[2977] RTC/GVNW also state that they have had little opportunity to review the TECM. RTC/GVNW concludes that some features of the model may be promising, but questions whether the model can be used in the universal service proceeding because note that the model is not self-contained and could not be used without supporting data from other models to supply the necessary input regarding loop lengths.[2978]

3. Determination of Forward-Looking Economic Cost for Rural Carriers

166. Developing a Forward-Looking Economic Cost Model for Rural Carriers. Commenters suggest procedures that the Commission should follow to select a cost model for rural carriers.[2979] Iowa Utilities Board advises that to assure that the Act's requirements regarding urban and rural rate comparability are met, the Commission should initiate a proceeding in this docket that will allow all interested parties to participate.[2980] Iowa Utilities Board further suggests that the Commission include an impact study on the rates charged to the customers of the small, rural carriers in its review of any model.[2981] Harris recommends that the Commission should ensure that small companies participate in the model selection process by making the forward-looking cost model available for testing by small companies.[2982] Wyoming PSC maintains that the Commission must give state commissions a major role in the development of an acceptable proxy models for rural

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[2977] ALTS post-workshop comments, att. at 1.

[2978] RTC/GVNW post-workshop comments at 8 n.18.

[2979] *See, e.g.,* Iowa Utilities Board comments at 4; John Staurulakis comments at 23; RUS comments at 2; TDS Telecom comments at 16; USTA comments at 26; Wyoming PSC comments at 9; RTC reply comments at 8.

[2980] Iowa Utilities Board comments at 4. *See also* John Staurulakis comments at 23.

[2981] Iowa Utilities Board comments at 4.

[2982] Harris comments at 4.

carriers.[2983] Pacific Telecom argues that, because of the unique circumstances of rural areas, the Joint Board should establish a task force specifically to study the development and impact of a cost model for rural carriers.[2984] Several commenters also urge the Commission to coordinate the transition to forward-looking costs for rural carriers with access charge and separations reforms because the rural carriers receive over 50 percent of their gross revenue from interexchange access charges and may lose an additional source of revenue if access charges decrease.[2985]

167. Other commenters address the characteristics that a cost model applied to rural carriers should have. TDS Telecom and RTC contend that a cost model should provide specific, predictable, and sufficient federal and state support calculations to preserve and advance universal service, enable the offering of quality services at affordable rates, support nationwide access to advanced telecommunications and information services through the availability of comparable rural and urban rates and services, provide correct signals regarding infrastructure investment.[2986] USTA maintains that the cost model developed for rural carriers should reflect actual costs.[2987] TCA asserts that the Commission should use a cost model for rural carriers only to identify high cost areas, while continuing to base support on actual cost, according to the model's distribution.[2988] Wyoming PSC maintains that the Commission should reconsider the Joint Board's recommendation to apply only a single cost model to all carriers, because "one size" cannot fit all and the disparate needs of the

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[2983] Wyoming PSC comments at 9.

[2984] Pacific Telecom Inc. pre-workshop comments at 3; Pacific Telecom Inc. post-workshop comments at 5.

[2985] *See, e.g.*, RUS comments at 2; Wyoming PSC comments at 9; RTC reply comments at 8.

[2986] TDS Telecom comments at 16; RTC reply comments at 4.

[2987] USTA comments at 26.

[2988] TCA comments at 5. *See also* USTA comments at 26; RTC reply comments at 8.

different high cost areas must be reasonably met.[2989]

168. Parties also comment regarding the size of the geographic area on which the cost model will base the support calculation. John Staurulakis contends that the selected cost model should not be based on CBG data because census blocks are too large to identify adequately the rural carriers' existing service territory.[2990] Instead, John Staurulakis asserts that the model should allow rural carriers the option of using their company-specific costs and recommends that the Commission conduct company-specific cost studies to ensure that the support is specific, predictable, and sufficient.[2991] NRPT recommends that the Commission recognize the differences between large, urban ILECs and small, rural ILECs and base the cost model for rural carriers on wire centers or study areas to target the support better.[2992] RTC argues that to counter the effects of "cherry picking" by competitors, the cost model should permit rural carriers to receive support based on disaggregated parts of their service areas, so that they receive the actual cost of providing service in the sparsely populated parts of a study area.[2993]

169. John Staurulakis advises that the use of a cost model should include a "maximum shift or change" feature that is similar to the provision in section 36.154(f)(1) of the Commission's rules permitting a five percent SPF reduction in the transition to the 25 percent gross allocation factor of

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[2989] Wyoming PSC comments at 9.

[2990] John Staurulakis comments at 14. *See also* NRPT comments at 4.

[2991] John Staurulakis comments at 14.

[2992] NRPT comments at 4.

[2993] RTC comments at 10.

non-traffic sensitive costs to the interstate jurisdiction.[2994] John Staurulakis contends that such a feature would ensure that a carrier's universal service payment does not increase or decrease by more than five percent per year to assure the predictability of the reconstituted universal service support mechanisms and protect rural carriers from major shifts in the amount of support received due to census changes, errors in census data, or other factors.[2995] RTC also suggests that even once a

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[2994] John Staurulakis comments at 15. *See also* RTC reply comments at 9. The subscriber plant factor (SPF) is an allocation factor formerly used to allocate loop costs between the state and interstate jurisdictions. *See* 47 C.F.R. § 36.154(e). The SPF was a traffic sensitive allocation factor. Because increases in relative interstate usage caused carriers' SPFs to escalate rapidly during the early 1980's, the Commission, in a series of proceedings, instituted a flat-rate 25 percent interstate allocation factor. This gross allocation factor was to be phased in during an eight-year period, 1986 to 1993, subject to the limitation that a carrier's transitional interstate allocation factor would not decrease more than five percent each year (SPF transition). The five percent limit on the change in interstate allocation measured the combined impact of the both the SPF transition and the USF transition that was phased in pursuant to 47 C.F.R. § 36.641 during the same eight-year transition period as the SPF transition. Carriers with very high SPFs were directed to extend their transition from a traffic sensitive to a flat-rate allocation factor, subject to the five percent limitation, until the 25 percent allocation was reached. Once a carrier's transition to a 25 percent allocation factor has been achieved, the five percent limitation on the change in interstate allocation is no longer operative. *See* Florida Public Service Commission Request for Interpretation of the Applicability of the Limit on Change in Interstate Allocation, Section 36.154(f) of the Commission's Rules, *Order*, FCC 97-83 (rel. Mar. 17, 1997); 47 C.F.R. § 36.154(f)(1). *See also* Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, *Decision and Order*, CC Docket No. 80-286, 89 FCC 2d 1 (1982) (adopting Joint Board's recommendation to freeze SPF at 1981 levels); Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, *Decision and Order*, CC Docket No. 80-286, 96 FCC 2d 781 (1984) (adopting Joint Board's recommendation to establish a fixed 25 percent interstate allocation factor to be phased in over four years with a maximum reduction in a carrier's interstate allocation factor of ten percentage points per year); MTS and WATS Market Structure and Amendment of Part 67 of the Commission's Rules and Establishment of a Joint Board, *Decision and Order*, CC Docket Nos. 78-72 and 80-286, 50 Fed. Reg. 939 (December 1984) (increasing transition period from four to eight years with a maximum reduction in a carrier's interstate allocation of five percentage points per year); Amendment of Section 36.154 of the Commission's Rules, *Memorandum Opinion and Order*, 6 FCC Rcd. 1873 (1991) (allowing carriers with very high SPF to extend transition.)

[2995] John Staurulakis comments at 15.

validated model is developed, the Commission should allow parties to petition for waivers so that companies with cost structures not fitting within the model may obtain relief.[2996]

4. Applicable Benchmarks

170. Use of a nationwide benchmark. There is general support for the use of a nationwide benchmark.[2997] The West Virginia Consumer Advocate contends that a nationwide benchmark will ensure that telecommunications rates will remain affordable throughout the nation and will not vary widely from state to state.[2998] Comptel states that a single benchmark will bring uniformity and predictability to the support mechanism and reduce the possibility that the support mechanism may favor carriers operating in some regions of the country.[2999] Comptel also contends that a nationwide benchmark will be easier to administer than regional or state wide benchmarks.[3000] In contrast, RUS and the Georgia Consumer's Council suggest that the Commission consider regional or statewide benchmarks. They express concern that if the national benchmark is above the regional or state wide level, carriers in that region or state recover less than the reasonable costs of service.[3001]

171. Average revenue-per-line benchmark. The majority of commenters appear to support the use of a revenue-based benchmark, although there is strong disagreement regarding what revenues

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[2996] RTC reply comments at 9.

[2997] *See, e.g.,* MCI comments at 8; Sprint PCS comments at 7; Texas PUC comments at 8.

[2998] West Virginia Consumer Advocate comments at 6.

[2999] Comptel comments at 11.

[3000] *Id.*

[3001] Georgia Consumer's Council comments at 2; RUS comments at 3.

to include in that benchmark.[3002] Time Warner states that use of a benchmark that considers the revenues received by the carrier is the most efficient and fair mechanism for establishing the need for high cost support.[3003] Several commenters, however, oppose the use of a revenue-based benchmark. ALLTEL and USTA contend that by using a revenue-based benchmark will permit the size of the fund to be manipulated by creating an artificially high revenue per line and thereby precluding eligible telecommunications carriers with legitimate universal service requirements from receiving funding. They also argue that revenues are not related to the cost of providing services, which is what the universal service mechanism is supposed to address.[3004] MFS contends that revenues should not be used because the development of competition in local markets should bring down revenues, thereby increasing the support level defined by a revenue-based benchmark.[3005]

172. Many commenters agree with the Joint Board's recommendation to use a revenue-based benchmark that includes revenues from local, discretionary, and access services.[3006] Those commenters assert that the Joint Board's recommendation recognizes that carriers receive far more revenue from their customers to cover the costs of basic service than they collect from rates for basic service.[3007] Other commenters contend that in establishing the benchmark, the Commission should include a broader revenue base than the Joint Board recommended. Several commenters suggest that revenue from yellow pages should be included in a revenue benchmark, because yellow pages have

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[3002] *See, e.g.,* Ad Hoc comments at 11; Cincinnati Bell comments at 9; PacTel reply comments at 14.

[3003] Time Warner comments at 16.

[3004] ALLTEL comments at 9; USTA reply comments at 11.

[3005] MFS comments at 24.

[3006] *See, e.g.,* Ameritech comments at 23; Worldcom comments at 21; ALTS reply comments at 2-3.

[3007] *See, e.g.,* NCTA comments at 10; Teleport comments at 6; West Virginia Consumer Advocate comments at 5.

been historically linked to residential telephone service.[3008] Comptel and MCI argue that revenues from intraLATA toll service should be included in the benchmark because the same network components that are used for basic service are also used to make intraLATA toll calls.[3009]

173. Many commenters, including most ILECs, assert that revenues from discretionary and access services should not be included in the calculation of a benchmark.[3010] They contend that for setting the benchmark only revenues from the supported services should be considered because only the cost of providing those services is considered in establishing the costs of providing the supported services.[3011] These commenters conclude that because discretionary services and access services are not among the supported services, and thus their costs are not included in calculating the cost of service, the revenues from those services should be excluded from the benchmark.[3012] For similar reasons, GTE argues that revenue from yellow pages should be excluded from revenue used to calculate the benchmark.[3013] Several commenters contend that the benchmark should not include revenues from discretionary and access services, because the proxy models calculate the costs for the supported services and do not include the costs of discretionary and access services.[3014]

174. Benchmark based on rates. Only a few commenters specifically address the use of a

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[3008] *See, e.g.,* AT&T comments at 7; Comptel comments at 3; Time Warner comments at 22-23.

[3009] Comptel comments at 11; MCI comments at 8 n. 3.

[3010] *See, e.g.,* Cincinnati Bell comments at 9; TDS Telecom comments at 35; Aliant reply comments at 3.

[3011] *See, e.g.,* ALLTEL comments at 9; California SBA comments at 4-5; CWA reply comments at 16.

[3012] *See, e.g.,* AT&T reply comments at 11; GTE reply comments at 30.

[3013] GTE reply comments at 31-32.

[3014] *See, e.g.,* Cincinnati Bell comments at 9; Texas PUC comments at 6; Puerto Rico Tel. Co. reply comments at 24.

rate-based benchmark. Urging the Commission to use as the benchmark the national average urban basic local service rate, including subscriber line charges, Sprint asserts that when the Commission and states finish their proceedings to eliminate implicit subsidies, the rates for local service will closely reflect the economic cost of service.[3015] TCA states that the benchmark should be based on a reasonable rate for basic local service alone and that the rate chosen must meet the principle of keeping rural rates comparable to urban rates.[3016] In contrast, Time Warner asserts that the Joint Board was correct to reject a rate-based benchmark because such a benchmark only reflects basic service rates and does not take into account all the revenues a carrier receives from a customer that contribute to the costs of providing basic service.[3017]

175. Benchmark based on affordability. Several commenters support the use of a benchmark based on some index of affordability. Puerto Rico Tel Co. asserts that affordability must be an integral factor in determining the level of support provided for a service area.[3018] Puerto Rico Tel Co. contends that the benchmark for such areas of low penetration should be adjusted by a factor proportionate to the difference between the income level for that area and the national average income level.[3019] BellSouth contends that an affordability benchmark advances the principle of service at affordable rates included in section 254, and is not subject to the same types of manipulation that a revenue-based benchmark may be.[3020] BellSouth and USTA propose that the

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[3015] Sprint comments at 19.

[3016] TCA comments at 6.

[3017] Time Warner comments at 15-16 (*citing* Recommended Decision at 248).

[3018] Puerto Rico Tel. Co. comments at 18.

[3019] *Id.* at 27. Puerto Rico Tel Co. reply comments at 13.

[3020] BellSouth reply comments at 10. BellSouth states that a revenue benchmark may be manipulated by the revenues that are included or excluded from the benchmark. BellSouth comments at 6 n. 14.

Commission base the benchmark on one percent of household income.[3021] USTA argues that the use of household income is reasonable because it reflects what customers can reasonably be expected to pay for service.[3022]

176. Cost-based benchmark. Several parties contend that the benchmark should be based on the average cost of providing service, rather than on revenues. They argue that, as the Joint Board noted,[3023] revenues are subject to great fluctuation, particularly as new competitors enter the market.[3024] ALLTEL and MFS urge the Commission to base the benchmark on the national average cost of service developed by the proxy models.[3025] They state that the purpose of the universal service support mechanism is to support high cost areas, not areas with low revenues.[3026] The California PUC also argues that the best way to assure that the fund is directed to high costs areas is to adopt a cost-based benchmark. The Maryland PSC suggests that the Commission consider a benchmark based on the rates for unbundled network elements established by the state pursuant to arbitration proceedings.[3027] RTC and several rural telephone companies assert that the benchmark should be based on average embedded costs for ILECs.[3028]

[3021] BellSouth comments at 5-6 n. 13; USTA comments at 11. USTA also proposes that the benchmark for single line business service be set at 1.5 times the residential benchmark, or, in other words, 1.5 percent of the county median household income. USTA comments at 11.

[3022] *Id.*

[3023] *See* Recommended Decision, 12 FCC Rcd at 249.

[3024] *See, e.g.,* California PUC comments at 6; TDS Telecom comments at 32; MFS reply comments at 16.

[3025] ALLTEL comments at 9; MFS reply comments at 16.

[3026] MFS comments at 26.

[3027] Maryland PSC reply comments at 7.

[3028] RTC reply comments at 19. *See also* TDS Telecom reply comments at 3.

177. Other benchmarks. U S West recommends that the Commission adopt the Federal Funding Benchmark (FFB) of $30 that U S West proposed as the basis for distributing universal service support.[3029] U S West states that its FFB will result in a reasonably sized high cost fund. It contends that there is support in the record for a $30 level because that amount is slightly lower than the highest statewide average residential rate and generally corresponds to one percent of national median household income, the benchmark proposed by some commenters.[3030]

178. Use of separate benchmarks for residential and single-line business services. Several commenters express support for the Joint Board's recommendation to have separate benchmarks for residential and single-line business services.[3031] USTA supports the use of separate benchmarks for residential and single-line business service, and argues that the former benchmark should be based on the median household income in the county.[3032] The Maryland PSC states that if support is to be provided for single-line businesses, a separate benchmark should be established.[3033] Roseville Tel. Co. and TDS Telecom assert that because ILECs do not keep records of revenues separately for residential and business calling, developing two benchmarks will impose difficult record-keeping and collections burdens on ILECs.[3034]

C. Mechanisms for Carriers Until Support is Provided Based on Forward-Looking

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[3029] U S West comments at 6. For a full description of U S West's FFB proposal *see* U S West NPRM comments at 12.

[3030] U S West comments at 28-29 (stating that a price comparison of BOC basic residential service shows that $30.11 is the highest statewide average residential service price in the nation).

[3031] *See, e.g.*, Texas PUC comments at 8; Worldcom comments at 21; Ohio PUC reply comments at 5.

[3032] USTA comments at 11.

[3033] Maryland PSC comments at 6-7.

[3034] Roseville Tel Co. comments at 6, 15; TDS Telecom comments at 35-36.

Economc Cost

1. Non-Rural Carriers

179. Alternative Options. BANX proposes another way to determine forward-looking economic costs for use in calculating universal service support. Citing three advantages to doing so, BANX proposes that rather than proxy models, the Commission should use the rates for UNEs as the basis for calculating the cost of providing the supported services.[3035] First, BANX contends that using UNEs would avoid the administrative difficulties in administering different support levels for hundreds or thousands of CBGs in each state. Second, BANX asserts that assuming that the rates for UNEs reflect states' determinations of the cost of the underlying facilities, the UNEs would have a stronger economic basis than the hypothetical costs produced by the proxy models. Finally, BANX explains that there would not be any potential arbitrage problem between the costs of UNEs and the level of universal service support.[3036]

2. Rural Carriers

180. In General. Rural carriers generally support the Joint Board's recommendation that a forward-lookig economic cost model not be used immediately to calculate their high cost support.[3037] Most rural carriers, however, object to the scheduled transition to a mechanism for calculating

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[3035] BANX notes that "customer care" costs would have to be added to the price of the UNEs to determine the cost of providing the supported services. It suggests that this amount could be determined by reference to the discount between wholesale and retail rates determined by the state under section 253(d)(3). BANX reply comments at 14-15.

[3036] *Id.* at 14.

[3037] *See, e.g.*, RT comments at 7; RTC comments at 10; TDS Telecom comments at 15; Tularosa Basin Tel. comments at 6; USTA comments at 26; Rock Hill Tel. Co. reply comments at 2.

support based on forward-looking costs.[3038] Rural carriers also oppose the Joint Board's recommendation to fixed support levels during the transition.[3039] Moreover, they join other ILEC commenters disputing the Joint Board's recommendation to make support portable to competitive carriers.[3040] State regulatory commissions from states with many rural carriers generally agree with the rural carriers' comments regarding the Joint Board's recommendations.[3041] IXCs, CLECs, some state regulatory commissions, and others, however, generally endorse the Joint Board's recommendations regarding the support mechanism for rural carriers.[3042] Some commenters contend that the Commission should immediately discontinue support based on embedded costs for all carriers.[3043]

181. Use of a Forward-Looking Economic Cost Model. Most rural carriers oppose the use of a forward-looking cost cost model and advocate the continued use of embedded cost to determine high cost support for all carriers.[3044] Rural carriers and some state PUCs contend that because rural areas are more expensive to serve than urban areas, the application of current cost models to rural

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[3038] *See, e.g.*, Evans Tel. comments at 9; John Staurulakis comments at 4; RTC reply comments at 2.

[3039] *See, e.g.*, John Staurulakis comments at 10; TCA comments at 2; Tularosa Basin Tel. comments at 7; USTA comments at 27.

[3040] *See, e.g.*, Evans Tel. comments at 12; ITC reply comments at 3; John Staurulakis comments at 7; Minnesota Coalition comments at 34; RT comments at 11; RTC comments at 15; TCA comments at 5; TDS Telecom comments at 41; Western Alliance comments at 14; Lufkin Conroe reply comments at 1.

[3041] *See, e.g.*, Iowa Utilities Board comments at 3; Wyoming PSC comments at 9.

[3042] *See, e.g.*, Citizens Utilities comments at 4; ITI comments at 2; WorldCom comments at 19; GCI reply comments at 2; MCI reply comments at 5; MFS reply comments at 10.

[3043] *See, e.g.*, Ameritech comments at 13; CSE Foundation comments at 5.

[3044] *See, e.g.*, ALLTEL comments at 8; GSA comments at 11; John Staurulakis comments at 4; Evans Tel. comments at 9; RTC reply comments at 2.

telephone companies produces inconsistent and insufficient cost calculations.[3045] Parties contend that rural carriers incur much higher costs per-subscriber than their larger counterparts, because rural carriers are unable to realize the economies of scale and scope available to ILECs serving densely populated areas.[3046] Minnesota Coalition asserts that rural carriers' small revenue bases and high costs prohibit the generation of the large cash flows necessary for them to withstand sharp reductions or fluctuations in particular revenue categories.[3047] Minnesota Coalition also asserts that the current embedded cost mechanism must be maintained, because the pending access charge reform proceeding will eliminate the offsetting effect of access revenues to any reduction in support.[3048] RTC expresses concern that, because the Joint Board recommends that ILECs contribute to the new universal service support mechanisms, providing support at a level other than a 100 percent of embedded cost will

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[3045] *See, e.g.,* Evans Tel. Co. comments at 11; GVNW comments at app. B, 3, 4; Harris comments at 2; Iowa Utilities Board comments at 3; John Staurulakis comments at 4, 11; Minnesota Coalition comments at 18; Roseville Tel. Co. comments at 12; Western Alliance comments at 36; Wyoming PSC comments at 8; ALLTEL reply comments at 3; RTC reply comments at 2.

[3046] Harris comments at 3 (maintaining that rural carriers experience higher service costs than other carriers because they must use longer than average transport links to carry less than average amounts of traffic due to the distance between urban and rural areas, run smaller cables with lower cable fill factor for longer distances due to lower subscriber density, serve smaller concentrations of customers with their switching equipment, and cannot smooth the effects of unusual geographic features by averaging the proxy results due to fewer exchanges); ALLTEL comments at 8 (averring that rural carriers have higher costs because they experience greater volatility in their customer base than other carriers); ICORE comments at 12 (arguing that a proxy model cannot possibly replicate each carrier's costs because rural carriers' costs are volatile and do not follow broad industry trends); Minnesota Coalition comments at 18 (asserting that rural service areas are too small to make investments in an even pattern, as required by a proxy-based cost calculation). *See also* Iowa Utilities Board comments at 3; Western Alliance comments at 3.

[3047] Minnesota Coalition comments at 16. *See also* Iowa Utilities Board comments at 3 (maintaining that even a small miscalculation by a proxy model of the number of lines a small ILEC serves would substantially affect that carrier's cost calculation); RT comments at 3; Western Alliance comments at 3.

[3048] Minnesota Coalition comments at 13.

result in a further net reduction of support to ILECs.[3049]

182. Transition to a Forward-Looking Economic Cost. Many commenters assert that the Joint Board's recommendation to shift rural carriers to a forward-looking economic cost methodology over a six-year transition period is contrary to the requirements of the Act.[3050] Minnesota Coalition contends that the Commission should continue to base support to rural carriers on their embedded costs because section 254 requires that support be "sufficient" to achieve rates in rural areas that are affordable and reasonably comparable to rates charged for similar services in urban areas.[3051] Similarly, ALLTEL and USTA maintain that the Commission should develop and validate a cost model that meets the criteria of section 254(b)(5) before starting the rural carriers' transition to forward-looking costs.[3052] Arguing that Congress added section 254 to the Act to protect rural areas because rural areas are less likely to attract competition, some parties contend that the mandate in section 254 to preserve and advance universal service requires the exemption of rural carriers from the use of a proxy model until competition develops in rural areas.[3053] Furthermore, many of these commenters state that rural carriers rely upon federal and state universal service support to maintain affordable rates and insist that a support mechanism based on forward-looking economic cost will undermine the provision of universal service by providing carriers reduced support.[3054] Western

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[3049] RTC comments at 14. *See also* TDS Telecom comments at 24.

[3050] *See, e.g.,*John Staurulakis comments at 7; Minnesota Coalition comments at 10, 19; Western Alliance comments at 2; Wyoming PSC comments at 9; Evans Tel. Co. reply comments at 3.

[3051] Minnesota Coalition comments at 10, 19. *See also* Evans Tel. Co. comments at 8; John Staurulakis comments at 13; Wyoming PSC comments at 9.

[3052] ALLTEL comments at 8; USTA comments at 8. *See also* Evans Tel. Co. comments at 8.

[3053] TCA comments at 9.; Western Alliance comments at 2. *See also* John Staurulakis comments at 7; Minnesota Coalition comments at 17; Evans Tel. Co. reply comments at 3.

[3054] *See, e.g.,* Minnesota Coalition comments at 16; RT comments at 3; Western Alliance comments at 3.

Alliance argues that the Joint Board's recommendations if adopted, would destroy section 254's rural safeguards to the detriment of telecommunications infrastructure investment, service, quality, and rates and general economic development in rural areas.[3055]

183. Many commenters, primarily non-ILECs, support the Joint Board's recommendations to shift rural carriers gradually to a support mechanism based on forward-looking economic cost to calculate support.[3056] MCI maintains that the reasons for adopting forward-looking costs apply equally to urban and rural areas.[3057] Moreover, Virginia's Rural, a group of rural carriers in Virginia, support the recommended transition to cost models for rural carriers because it reflects "a proper balance in determining the universal service support for rural companies."[3058] ITI contends that a long-run incremental cost methodology "will ensure that universal service support levels correspond to the true costs of providing universal service and thereby both encourage competition in rural areas and bolster efficiency in the provision of universal service."[3059] In addition, the California PUC argues that, even though any reduction in support from the transition to a cost model may cause rural rates to rise, section 254(b) of the Act does not require that rates in high cost areas be the same as those in low cost areas; instead, this provision requires only that rates be reasonably comparable.[3060] CSE Foundation avers that because the $5 billion annual rural high cost support amount it has estimated substantially exceeds the support estimates for low-income subscribers and educational institutions, the Commission should not grant any support based on embedded costs to rural carriers

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[3055] Western Alliance comments at 2. *See also* Evans Tel. Co. comments at 9; RUS comments at 1; Universal Service Alliance comments at 4.

[3056] *See, e.g.*, Citizens Utilities comments at 4; MCI reply comments at 5.

[3057] MCI reply comments at 5.

[3058] Virginia's Rural comments at 2.

[3059] ITI comments at 3.

[3060] California PUC comments at 4.

through a transition mechanism.[3061] Rather than recommending that rural carriers move to proxies, however, CSE Foundation advocates calculating support for all carriers on a competitive bidding system.[3062]

184. Length of Transition. Other carriers contend that the Commission should implement a transition period for rural carriers that is longer than the six years recommended by the Joint Board.[3063] MCI, however, maintains that the recommended transition is more than sufficient to ensure that there is no harmful effect to universal service as a result of the transition to the use of forward-looking costs.[3064] Ameritech asserts that rural carriers should begin the transition immediately upon development of a suitable cost model, instead of collecting support at protected levels for a preceding three-year period.[3065]

185. Early Use of Forward-Looking Economic Cost Methodology. The majority of commenters support permitting rural carriers to determine costs based on forward-looking economic

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[3061] CSE Foundation comments at 5 (*citing* Telecommunications Industries Analysis Project, "What is the Price of Universal Service? Impact of Deaveraging Nationwide Urban/Rates," TIAP, Cambridge, MA (1995)). *See also* Chicago reply comments at 13.

[3062] CSE Foundation comments at 6.

[3063] *See, e.g.,* California SBA comments at 3 (suggesting that the Commission give carriers serving high cost areas a longer transition period to bring their operations in line with the least cost, most efficient technology standard that the proxy models will utilize. California SBA, however, does not state what would constitute a "reasonable time"); Texas PUC comments at 8 (asking that the Commission allow rural companies to maintain their current level of support until the state designates another eligible carrier within the same service area under section 214(e) of the Act); Western Alliance comments at 26 (arguing that the transition period should be extended to enable the carriers to recover their revenue requirements for prudently invested, but unamortized amounts); RTC comments at 29.

[3064] MCI reply comments at 5.

[3065] Ameritech comments at 13.

cost prior to the date of mandatory shift to the use of proxy models, as recommended by the Joint Board.[3066] In contrast, Maryland PSC maintains that rural carriers should not be allowed to use a cost model before the mandatory transition begins. Maryland PSC states that allowing rural carriers to do so would increase the support mechanism because only carriers that would receive more support under a cost model would switch to forward-looking costs at an earlier date.[3067]

186. Fixed Support Levels. Rural carriers generally oppose the use of fixed support levels for high loop and switching costs and LTS recovery and argue that the Commission should permit full recovery of a carrier's annual embedded costs during the transition to a proxy model.[3068] Many commenters contend that fixing support levels during the transition to a proxy model is contrary to requirements set forth in the Act. Parties argue that fixing the support will prevent carriers from recovering costs incurred in meeting their service requirements as carriers of last resort and costs incurred as a result of state and federal regulatory directives for new services and facilities upgrades, contrary to the requirement of section 254(b)(5) that the universal service support be sufficient.[3069] Rural Alliance asserts that the Joint Board's proposal to fix support departs from the congressional directive to preserve and enhance universal service.[3070] Minnesota Coalition argues that the proposals to fix current support levels fail to reflect variations in calling scope, income level, and cost of living and would therefore violate the statutory requirements that rates be affordable and that rural rates be

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[3066] *See, e.g.,* Harris comments at 4; Iowa Utilities Board comments at 5; USTA comments at 26.

[3067] Maryland PSC comments at 8.

[3068] *See, e.g.,* Evans Tel. Co. comments at 9; John Staurulakis comments at 10; Minnesota Coalition comments at 13; RTC comments at 12; TDS Telecom comments at 24.Tularosa Basin Tel. comments at 7; USTA comments at 27.

[3069] *See, e.g.,* Evans Tel. Co. comments at 8; John Staurulakis comments at 10; Minnesota Coalition comments at 19; TDS Telecom comments at 39; Western Alliance comments at 26, 30; ITC reply comments at 3; Lufkin-Conroe reply comments at 3; RTC reply comments at 10.

[3070] Rural Alliance comments at 3. *See also* USTA comments at 8.

"reasonably comparable" to urban rates.[3071]

187. Parties assert that fixing support levels would interrupt long-term capital improvement plans and discourage investment.[3072] ICORE and Western Alliance state that the Commission should not fix support levels because rural carriers have highly volatile and unpredictable costs due to extreme weather conditions that cause equipment and repair costs to increase significantly and unpredictably.[3073] ICORE contends that fixing the overall size of the support mechanism rather than protecting support on a carrier-to-carrier basis would lessen the severe impact holding support levels constant would have on high cost rural carriers.[3074] USTA argues that holding support levels constant would remove any incentive for rural companies to serve any area with per-line costs above the protected amounts.[3075] Evans Tel. Co. contends that protecting support would overcompensate carriers that are operating with costs reduced from costs reported in 1996 because they do not need to build additional facilities or undertake other operating costs.[3076]

188. Fixed Loop Support. Several commenters contend that, because companies may have invested substantial amounts in 1996 on the assumption that they would recover a portion of this investment from high cost support mechanisms, the mechanism for calculating protected high cost assistance to carriers with high cost loops used in 1997 should be based on 1996 loop counts, instead

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[3071] Minnesota Coalition comments at 13.

[3072] *See, e.g.*, Evans Tel. Co. comments at 8, 9; ITC comments at 4, 5; RTC comments at 12; Rural Alliance comments at 7; TCA comments at 2; USTA comments at 8; Western Alliance comments at 37.

[3073] ICORE comments at 7; Western Alliance comments at 25.

[3074] ICORE comments at 9.

[3075] USTA reply comments at 9.

[3076] Evans Tel. Co. comments at 8.

of the recommended 1995 counts.[3077] Many parties also contend that the Commission should determine 1998 fixed loop support on the basis of year-end 1997 loops counts, instead of the recommended year-end 1996 counts.[3078] GVNW proposes these modifications in order to give carriers the ability to modify their investment policies to reflect future revenue streams.[3079] RT asserts that because the loops counts will be two years old, adoption of the Joint Board's recommendation regarding fixed loop support would result in insufficient increases in revenue to reflect a growth in loops.[3080] RT also contends that because outside plant construction takes place in the summer, 1995 loop counts would not permit a full year of depreciation for 1995 investments.[3081] As an alternative to the Joint Board's recommendation, the ILEC Associations propose that instead of calculating support based on a protected mechanism, rural carriers receive support for their loop costs that exceed 115 percent of the 1995 nationwide average loop cost that is annually adjusted to inflation. The percentage of the above-average loop cost that rural carriers may recover from the support mechanism will remain consistent with the current provisions concerning support for high loop costs in the Commission's rules.[3082] The ILEC Associations argue that their alternative

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[3077] *See, e.g.,* ALLTEL comments at 10; GVNW comments at 14; John Staurulakis comments at 22; RT comments at 7; USTA comments at 28; Rock Hill Tel. Co. reply comments at 4.

[3078] *See, e.g.,* ALLTEL comments at 10; GVNW comments at 14; RT comments at 7; USTA comments at 28.

[3079] GVNW comments at 14.

[3080] RT comments at 7.

[3081] RT comments at 7.

[3082] USTA presents this proposal to calculate support for high loop costs, DEM weighting, and LTS on behalf of the Organization for the Protection and Advancement of Small Telecommunications Companies and the National Telephone Cooperative Association. *See* Letter from Porter Childers, USTA, to William F. Caton dated February 14, 1997 (ILEC Associations' February 14 *ex parte*); Letter from Porter Childers, USTA, to William F. Caton dated March 13, 1997 (ILEC Associations' March 13 *ex parte*). In its comments, however, USTA proposes that carriers should recover 100 percent of their embedded unregulated and unseparated loop, transport,

proposals for high cost loop support, DEM weighting assistance, and LTS benefits address the Joint Board's concerns, while allowing rural carriers to recover their prudently invested costs and providing rural subscribers affordable service and access to advanced services.[3083]

189. Fixed DEM Support. Several parties offer alternative proposals to the Joint Board's recommendations. ALLTEL contends that the DEM weighting support mechanism should permit carriers to update their switching costs annually and advocates that the weighted DEM be divided by the supportable lines each year to determine the support per line.[3084] The ILEC Associations propose that support for high switching costs should be provided by protecting the interstate allocation factor for the weighted DEM for each study area. This allocation factor would then be applied annually to traffic sensitive investment and expenses, and furthermore, all interstate allocated amounts that are in excess of the unweighted DEM would be recovered through the new support mechanisms.[3085] Also, United Utilities recommends the adoption of actual switched minutes of use (SMOU) for allocating Category 3 switching costs because it contends that the continued use of DEM does not price interstate access services based on cost and thus, clearly violates the requirement to make all support mechanisms explicit.[3086] Ameritech, however, asserts that because they will recover payments from

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and switching costs associated with local service as part of a single mechanism to provide universal service support. *See* USTA comments at 14; Letter from Roy Neel, USTA, to Chmn. Reed E. Hundt dated October 3, 1966 (USTA October 3 *ex parte*).

[3083] Letter from Porter Childers, USTA, to William F. Caton dated February 14, 1997 (ILEC Associations' February 14 *ex parte*); Letter from Porter Childers, USTA, to William F. Caton dated March 13, 1997 (ILEC Associations' March 13 *ex parte*). *See infra*. paras. _ and _ for discussion on DEM weighting and LTS.

[3084] ALLTEL comments at 10.

[3085] *See* Letter from Porter Childers, USTA, to William F. Caton dated February 14, 1997 (ILEC Associations' February 14 *ex parte*); Letter from Porter Childers, USTA, to William F. Caton dated March 13, 1997 (ILEC Associations' March 13 *ex parte*).

[3086] United Utilities comments at 8.

the new universal service support mechanisms, rural carriers should be required to remove the effects of DEM weighting from their access rates immediately.[3087]

190. Fixed LTS Support. USTA maintains that the Joint Board's recommended methodology for assigning LTS to individual study areas would produce anomalous results, because LTS amounts would be assigned to an individual study area based on the relative size of its revenue requirement without regard to revenues received from other sources, such as the SLC and CCL charge.[3088] The ILEC Associations propose that the level of LTS should be protected at the percentage of the total common line pool that was represented by LTS in 1996. This ratio would then be applied to the annual common line revenue requirement that NECA calculates and recovered through the new support mechanisms.[3089] ALLTEL agrees with the Joint Board's recommendation to protect LTS at 1996 levels, because de-pooled ILECs will no longer be required to fund this support.[3090] ALLTEL maintains, however, that the recommended method for calculating LTS recovery would produce inequitable and insufficient support for the highest cost study areas.[3091] ALLTEL suggests that the Commission should determine LTS recovery by calculating each study

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[3087] Ameritech comments at 13.

[3088] USTA comments at 29.

[3089] *See* Letter from Porter Childers, USTA, to William F. Caton dated February 14, 1997 (ILEC Associations' February 14 *ex parte*); Letter from Porter Childers, USTA, to William F. Caton dated March 13, 1997 (ILEC Associations' March 13 *ex parte*). In its comments, however, USTA proposes that the Commission calculate each year's protected LTS requirement by subtracting from the year-end 1996 common line revenue requirement, including the rate of return, end-user charges and carrier common line revenues. This total LTS support requirement would then be divided by supportable loops to determine the protected per-loop amount. *See* USTA comments at 29.

[3090] ALLTEL comments at 10.

[3091] ALLTEL comments at 11.

area's 1996 interstate common line revenue requirement at the authorized rate of return.[3092] Each study areas's 1996 SLC revenues and CCL charge revenues would then be subtracted from that study area's revenue requirement, and the difference would be divided by the number of supportable lines in the study area to define the amount of support per line required to replace LTS payments.[3093] ALLTEL contends that this methodology comports with the Act, because it grants study area specific LTS per line support.[3094] Harris argues that calculating each company's fixed LTS support as its annual net settlement with the NECA Common Line Pool during a particular year, after removing out of period adjustments would be easier to implement than the Joint Board's recommended approach and would also effectively cap the SLC and CCL charge.[3095] Harris would grant members of the Common Line Pool the choice of leaving the pool or maintaining their existing SLC and CCL charge rates and asserts that its proposal would function as an incentive for pool members electing to remain to control common line costs and stimulate demand.[3096] Harris acknowledges that modifications might be necessary to the extent that there were any net contributors to the common line pool apart from LTS contributors.[3097]

191. IXCs, wireless providers, and others, however, support the Joint Board's recommendations regarding fixed support levels for rural carriers.[3098] WorldCom states that it does

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[3092] ALLTEL comments at 11.

[3093] ALLTEL comments at 11.

[3094] ALLTEL comments at 11.

[3095] Harris comments at 5.

[3096] Harris comments at 6.

[3097] Harris comments at 6.

[3098] *See, e.g.,* GCI reply comments at 5.

not oppose fixed payments, provided that the support is portable to all carriers.[3099] WorldCom expresses concern, however, that the Joint Board proposes to retain the current contribution system, which requires only IXCs to fund the mechanism, during the transition period to proxy models.[3100]

192. Waivers for Unusual Operating Conditions. Cathey, Hutton contends that because some carriers may have incurred unusual expenses during the benchmark year for protecting the support, the Commission should allow carriers to submit a cost study with the costs adjusted, or "normalized" to reflect the carriers' typical cost structure to establish the protected support amount.[3101] NRPT argues that protecting the support at previous years' costs will provide inadequate support to carriers that have committed to make facility upgrades over a number of years in their study area waiver applications.[3102] NRPT thus suggests that the support provided to carriers that have acquired rural exchanges recently include the cost data and modernization commitments made in the carriers's study area waiver.[3103] TDS Telecom asserts that the Commission should provide increased high cost compensation for network improvement costs and incorporate an adjustment factor increasing protected high cost compensation at a rate consistent with "healthy" investment.[3104]

193. Support for New Service Areas. Some commenters contend that the mechanism set forth in the Recommended Decision would discriminate against a carrier that began operations or bought additional exchanges after the benchmark year used for protecting the support levels. These commenters explain that because such a carrier would not have historical cost data, the

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[3099] WorldCom comments at 19.

[3100] WorldCom comments at 19 (arguing that requiring only IXCs to contribute would be unlawful).

[3101] Cathey, Hutton comments at 9.

[3102] NRPT comments at 3.

[3103] NRPT comments at 3.

[3104] TDS Telecom comments at 40. *See also* NRPT comments at 3.

Recommended Decision would have required this carrier to convert immediately to a proxy model, instead of using the proposed transition mechanism.[3105] Tularosa Basin Tel. thus opposes using 1996 as the benchmark year because it began operations in 1996 and does not want to be forced to convert to a proxy mechanism before the transition period available to other qualifying rural carriers has ended. NRPT contends that when exchanges are bought in the middle of a calendar year, the additional loops should be reported as part of the acquiring company's cost study and the protected amount should be based on the acquiring company's annualized costs.[3106]

194. Average Schedule Companies. Several commenters note that the Recommended Decision does not address how average schedule companies that convert to cost in 1997 will calculate their high cost support during the transition. Specifically, these commenters ask whether companies that receive only a partial year amount of universal service support payments for high loop costs will have their protected embedded universal service assistance per loop calculated on this partial year payment or will be allowed to annualize such payments to reflect a full year.[3107] Wyoming PSC contends that protecting the high cost support at a level based on 1995 embedded costs is unfair because average schedule companies that are in the process of converting to cost would appear to be precluded from receiving support for embedded costs that they have incurred, even though these costs would have been recoverable under the current support mechanisms.[3108] To address such concerns, USTA proposes that average schedule companies that convert to cost in 1997 be permitted to elect to use the proxy model or to use current costs as the basis for the protected support amount.[3109] In addition, USTA suggests that average schedule companies that remain on

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[3105] Tularosa Basin Tel. comments at 7.

[3106] NRPT comments at 3. The term "annualized" refers to the projection of costs for a year based on an average of the costs incurred during a partial year.

[3107] *See, e.g.*, John Staurulakis comments at 22; USTA comments at 26.

[3108] Wyoming PSC reply comments at 2.

[3109] USTA comments at 29.

average schedules should also be permitted to elect a cost proxy model or use the protected embedded cost amount that is calculated according to USTA's proposal.[3110] Alternatively, Rock Hill Tel. Co. suggests that ILECs that convert from average schedule to cost in 1997 should receive support on an annualized basis during the transition period beginning January 1, 1998.[3111] Rock Hill Tel. Co. explains that this proposal entails calculating such companies' transitional support as if they converted to "cost" status on January 1, 1997, and received an entire year of USF support.[3112] Rock Hill Tel. Co. also contends that average schedule ILECs that convert to cost at any time during the transition period should receive support for the remainder of that period based upon their actual embedded costs in order to ensure that both average schedule and cost rural ILECs are able to avail themselves of the transition process equally.[3113]

195. Certification. AT&T contends that in order to prevent abuse, the Commission should not permit carrier self-certification and instead, should establish a formal process to verify a carrier's eligibility to receive support as a high cost rural carrier.[3114] Contending that an accurate determination on eligibility is crucial, Time Warner supports AT&T's position and proposes that the Commission issue an NPRM or NOI regarding the certification process the rural carrier must undertake in order to receive support.[3115] ALLTEL, however, asserts that AT&T's proposal subverts the authority the Act has given to state commissions to choose eligible carriers.[3116] ALLTEL also

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[3110] USTA comments at 29.

[3111] Rock Hill Tel. Co. reply comments at 4.

[3112] Rock Hill Tel. Co. reply comments at 4.

[3113] Rock Hill Tel. Co. reply comments at 4.

[3114] AT&T comments at 27.

[3115] Time Warner reply comments at 23.

[3116] ALLTEL reply comments at 5.

contends that a formal certification process will result in an unjustifiable delay of a rural ILEC's certification.[3117]

196. Support for Competitive Carriers. The majority of rural carriers object to providing high cost support to competitive carriers by making the support portable with the customer.[3118] Commenters contend that although the Joint Board relies on the principle of competitive neutrality in making this recommendation, granting support to competitive carriers based on the ILECs' support actually would be contrary to the Act and not competitively neutral, because it would give preferential treatment to competitors through an uneconomic subsidy. Many commenters maintain that study area averaging causes an ILEC to receive the same amount of support for each customer in the study area regardless of the extreme differences in its cost of providing service to rural and urban areas. Thus, these commenters contend that making the support portable would permit wireless carriers and other CLECs to receive windfall support through their ability to "cream skim" customers in lower-cost areas, where their costs would be much less than the averaged, per-line support levels applicable to the rural telephone company's entire study area.[3119] These competitors, some commenters assert, would provide high-quality service to lower cost customers by making expenditures for facilities only in the densely populated centers, while providing marginal service through resale in outlying areas.[3120]

197. Several commenters state that the Joint Board's recommendation that the Commission require competitors to advertise in the entire study area, pursuant to section 254(e), in order to be eligible for support would not prevent cream skimming. They contend that wireless carriers and

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[3117] ALLTEL reply comments at 5.

[3118] *See, e.g.*, Evans Tel. Co. comments at 12; ITC reply comments at 3; John Staurulakis comments at 7; Minnesota Coalition comments at 34; RT comments at 11; RTC comments at 15; TCA comments at 5; TDS Telecom comments at 41; Western Alliance comments at 14; Lufkin Conroe reply comments at 1;

[3119] *See, e.g.*, Evans Tel. Co. comments at 12; RTC comments at 15; Western Alliance comments at 14.

[3120] *See, e.g.*, Evans Tel. Co. comments at 12; RTC comments at 15; Western Alliance comments at 14.

other CLECs might advertise in the entire service area but would construct facilities and aggressively market service only in the profitable lower cost areas.[3121] Furthermore, commenters contend that CLECs would discourage subscribership in remote, high cost areas by providing marginal resold service.[3122] Asserting that advertising in the entire area is not going to lead to an actual service request being made where signal strengths are inadequate, Evans Tel. Co. contends that the statutory standard requires the provision of service, rather than the advertising of services.[3123] In addition, RTC states that the absence of a requirement that the CLEC price its resold services in the high cost area at a price likely to enable it to obtain business makes the advertising requirement insufficient, because a CLEC can keep expenditures for service to high cost areas low by maintaining high rates that ensure few customers.[3124]

198. Evans Tel. Co. contends that providing high cost support to a CLEC for a resold service would give the CLEC an unfair competitive advantage because, as the operator of the facilities, the ILEC would continue to bear all of the cost of maintaining the facilities, while the reseller would merely purchase the service at a discount off the retail rate.[3125] TDS Telecom thus maintains that the loss of only a few of the ILEC's high-volume, low-cost customers would increase the universal service burden that exists with respect to the ILEC's remaining higher cost customers.[3126] Furthermore, Western Alliance predicts that making the support portable would

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[3121] *See, e.g.*, Evans. Tel. Co. comments at 12; Western Alliance comments at 14.

[3122] Western Alliance comments at 14. *See also* Evans. Tel. Co. comments at 12.

[3123] Evans Tel. Co. comments at 12.

[3124] RTC comments at 16.

[3125] Evans Tel. Co. comments at 13. *See also* Minnesota Coalition comments at 34.

[3126] TDS Telecom comments at 41.

discourage infrastructure investment by small, rural local exchange carriers.[3127]

199. Advocating that rural areas should be exempt from any requirement to make support portable, Evans Tel. Co. maintains that the Act specifically provides advantages and protection to rural ILECs that are not available to potential competitors in their service areas.[3128] Moreover, Evans. Tel. Co. states that subsidizing a single incumbent is not unfair, because it is unreasonable to support several service providers in a single service study area with a subsidy structure.[3129] Lufkin-Conroe contends that the Commission, by making the support in rural areas portable, should not attempt to create artificial competition in areas where competition is not yet warranted by market forces.[3130] Lufkin-Conroe further states that neither competition nor competitive neutrality requires or permits the Commission to favor new entrants over ILECs.[3131] RTC contends that competitive neutrality requires that the Commission grant high cost support only to the provider who maintains the facilities and at the level of costs of the provider.[3132] ITC suggests that the Commission should exempt rural areas from a requirement to make support portable as a means recognizing the risks that ILECs incur in fulfilling their vital obligations as carriers of last resort and equalizing the burdens between ILECs and new entrants.[3133] Furthermore, John Staurulakis contends that the Commission cannot grant support to CLECs, because Congress granted only state commissions the authority to

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[3127] Western Alliance comments at 13.

[3128] Evans Tel. Co. comments at 14.

[3129] Evans Tel. Co. comments at 14.

[3130] Lufkin Conroe reply comments at 1. *See also* Evans Tel. Co. comments at 14; Western Alliance comments at 11.

[3131] Lufkin Conroe reply comments at 1. *See also* Evans Tel. Co. comments at 14; Western Alliance comments at 11.

[3132] RTC comments at 16.

[3133] ITC reply comments at 3.

determine whether allowing more than one telecommunications carrier to provide service in a rural area is in the public interest[3134] John Staurulakis also asserts that the Commission should not make support portable in rural areas, because Congress has granted a presumption that rural carriers still operate in a natural monopoly for wireline service and recognize that facilities-based competition is inefficient in this type of market.[3135]

200. Other commenters propose alternative methods for calculating the support that CLECs should receive during the transition. Minnesota Coalition asserts that CLECs should qualify for universal service support based on their actual costs.[3136] RUS contends that because rural areas may not attract effective competition and because the competition may be directed toward lower cost subscribers within those areas, the Commission should establish a relationship between the amount of universal service support granted and the amount of investment carriers make in infrastructure.[3137] RUS further suggests that if a carrier fails to make a certain level of investment, the support should be reduced to a level corresponding to actual investment, or, in some cases, additional investment should be required in order to qualify for support.[3138] RTC contends that the law requires that support shall be used "only for the provision, maintenance, and upgrading of facilities" and that a CLEC reselling a loop should not get the high cost support for that loop. RTC maintains that since the resale rate for the loop is based on a supported retail price, the CLEC has itself paid a rate that includes universal service support.[3139] TCA recommends that when a CLEC begins serving a rural study area, the defined serving area may continue to be the study area of the incumbent rural

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[3134] John Staurulakis comments at 7.

[3135] John Staurulakis comments at 7.

[3136] Minnesota Coalition comments at 35.

[3137] RUS comments at 3.

[3138] RUS comments at 3.

[3139] RTC comments at 17.

telephone company, but the portable support for access lines within the study area must vary based on the cost of providing the access lines.[3140] GVNW and RT assert that in order to minimize cream skimming, the Commission should retain the current study areas and require CLECs to serve the entire study area.[3141] In addition, RTC contends that instead of only disaggregating support, through the use of a smaller geographic area than a carrier's study areas, in a proxy model's cost calculation, the Commission should recognize that disaggregating support within rural company service areas is required by cost variances that result from the clustering and dispersion characteristics of the population distribution in small communities.[3142] RTC and TDS also maintain that disaggregating support is necessary to prevent cream skimming by new entrants solely interested in serving the most lucrative pockets in rural areas.[3143]

201. IXCs, wireless providers, and other potential competitors to ILECs support the Joint Board's recommendation to grant support to CLECs by making the support portable with a customer and based at the ILEC's level.[3144] MFS asserts that support must be made available to any carrier that serves a high cost customer, because universal service should focus on affordable rates, not ensuring that carriers recover their investments.[3145] Moreover, USTA recommends that support be portable, on the basis of a per-loop amount, for all eligible telecommunications carriers for the provision of service to single-line, primary residences, and single-line businesses.[3146] GCI contends

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[3140] TCA comments at 5.

[3141] GVNW comments at 8; RT comments at 11.

[3142] RTC reply comments at 8.

[3143] TDS Telecom comments at 11; RTC reply comments at 8.

[3144] *See, e.g.*,WorldCom comments at 19; GCI reply comments at 2; MFS reply comments at 10.

[3145] MFS reply comments at 10.

[3146] USTA comments at 28.

that ILEC proposals to impose carrier of last resort responsibilities, service quality standards, or service area requirements on CLECs seeking to serve rural areas are contrary to the Act. GCI explains that section 214(e)(1) establishes the criteria for becoming an eligible telecommunications carrier, and Congress did not authorize the Commission to impose any other obligations.[3147] Moreover, GCI asserts that basing the support granted to competitive carriers on the costs of the ILEC is competitively neutral. GCI explains that the purpose of section 254 is to ensure service is available through competition and supported where needed, not to keep the ILEC whole or to provide special considerations to rural companies facing competition.[3148] GCI contends that making the support portable will constrain over-investment by incumbents and produce viable ILECs that will choose to continue to serve rural areas.[3149]

202. Alaska and Insular Areas. Several commenters express support for the Joint Board's recommendation to allow rural carriers serving Alaska and insular areas to continue until further review to receive support based on their frozen historical benefits per line, rather then support based on a proxy model.[3150] Alaska and Alaska PUC urge the Commission to reassess the per-line amount of support after any changes to access charges and separations rules to ensure that such changes do not reduce the amount of support a rural carrier in Alaska or an insular area receives, thereby jeopardizing the affordability of rates in those areas.[3151]

203. While they support the Joint Board's recommended approach, Puerto Rico Tel. Co. and USTA suggest that the non-rural carriers serving Alaska and insular areas should also be exempt from having their support based on a proxy model. Puerto Rico Tel. Co. contends that treating rural

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[3147] GCI reply comments at 3.

[3148] GCI reply comments at 5.

[3149] GCI reply comments at 5.

[3150] *See, e.g.*, Alaska PUC comments at 2; GCI comments at 5-6; Alaska reply comments at 3.

[3151] Alaska PUC comments at 2; Alaska reply comments at 3.

carriers serving Alaska and insular areas differently than non-rural carriers serving those same areas is contrary to the plain language of the statute, which does not condition support for insular areas based on the carrier's status as a rural carrier.[3152] USTA recommends that the exemption for rural carriers serving Alaska and insular areas should not be limited to carriers that meet the statutory definition of "rural" in section 153(37) of the Act, but should be expanded to include carriers serving those areas with less than two percent of the Nation's subscriber lines. USTA notes that Congress adopted the two percent standard in section 251(f)(2) of the Act to recognize the particular challenges smaller ILECs face.[3153]

204. Other commenters, while supporting the Joint Board's recommendation, argue that rural carriers serving areas other than just Alaska and traditional insular areas should also continue to receive support based on frozen historical benefits per line for more than three years after a proxy model for non-rural ILECs is first used. John Staurulakis proposes than the Commission allow all rural carriers to continue using embedded costs as the basis for universal service support, past the three-year period recommended by the Joint Board.[3154] Silver Star Tel. Co. and Harris recommend that the Commission establish criteria by which to designate rural carriers as serving an "insular" area.[3155]

205. Guam Tel. Authority supports the Joint Board's proposal to freeze support based on historical per line amounts, but expresses concern that it might not be able to receive universal service support under that proposal due to its unique situation. Guam Tel. Authority explains that because of Guam's historical treatment as an international point, it has not filed a traditional access tariff, is not a member of NECA, does not serve a "study area" as defined by the Commission, and

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[3152] Puerto Rico Tel. Co. comments at 20.

[3153] USTA comments at 26.

[3154] John Staurulakis comments at 11.

[3155] Harris comments at 9; Silver Star Tel. Co. comments at 3.

has not participated in any universal service support program.[3156] Consequently, Guam Tel. Authority requests that the Commission interpret the Joint Board recommendation to allow it to receive benefits based on per-line amounts which Guam Tel. Authority received under its previous system of subsidies.[3157]

D. Competitive Bidding

206. Many of the commenters agreed with the Joint Board's analysis and its recommendation that the Commission continue to explore the use of competitive bidding to set support levels.[3158] These commenters agree with the Joint Board that competitive bidding can have significant advantages over other mechanisms to determine support levels. Airtouch and CSE Foundation note that a competitive bidding mechanism is market-based and allows the bidding carrier to determine its own costs for providing universal service to an area.[3159] Ameritech, GSA, and GTE also support competitive bidding because it could serve to constrain or reduce the size of the support mechanism, particularly over time as new and more efficient technologies are developed.[3160] AirTouch argues that the Commission could use the information on support levels developed from auctions to make adjustments to the support levels set by proxy models in non-competitive areas.[3161] Several parties also argue that competitive bidding will require less administrative oversight by

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[3156] Guam Tel. Authority comments at 1-2.

[3157] *Id.* at 3-4.

[3158] *See., e.g.,* APC comments at 6; CSE Foundation comments at 8; PCIA comments at 15; Motorola reply comments at 9.

[3159] AirTouch comments at 24; CSE Foundation comments at 7.

[3160] Ameritech comments at 13; GSA comments at 10; Sprint PCS comments at 6.

[3161] AirTouch comments at 24-25.

Federal and state regulators than other support mechanisms.[3162] For example, Sprint PCS notes that while a proxy model system will require regulators to assess costs, competitive bidding requires no cost studies and no regulatory intervention beyond establishing and enforcing the bidding process rules.[3163] GTE argues that competitive bidding is the only method for determining support that is inherently competitively neutral.[3164]

207. CSE Foundation urges the Commission to evaluate the GTE proposal further.[3165] GTE states that its proposal could be a starting point for further discussion of these issues.[3166] GTE contends that its proposal is the only suggested support mechanism that is explicitly based on and clearly takes into account the benefits of competition, the gains from minimizing the cost of suppling service, and the costs to the economy of raising the necessary funding.[3167] GTE states that therefore its proposal is the only one that directly addresses the "deadweight loss" concerns raised by AirTouch.[3168] GTE argues that one aspect of its plan that has drawn much criticism -- a requirement that bidding carriers assume COLR requirements -- is necessary to make any competitive bidding system work, and notes that Ameritech agrees that an obligation to serve consistent with COLR

[3162] *See* GSA comments at 10; Motorola reply comments at 12.

[3163] Sprint PCS comments at 6.

[3164] GTE comments at 59.

[3165] CSE Foundation comments at 8.

[3166] GTE comments at 60.

[3167] GTE reply comments at 42.

[3168] GTE reply comments at 42 (*citing* AirTouch comments at 5-13.) AirTouch argues that tax burdens, such as the surcharge for universal service support mechanisms, lead to distortions in investment and supply decisions in the marketplace, which economists refer to as the "deadweight loss" of taxation. AirTouch comments at 5.

requirements is necessary.[3169] GTE therefore urges the Commission to define the service obligations on which the participants are bidding in an auction.[3170] GTE suggests that parties be allowed to bid on per-subscriber support payments with the obligation to serve anyone requesting basic service in small (homogeneous) service areas.[3171] Ameritech contends that parties should be allowed to bid on fixed-fee subsidies with the obligation to serve any customer from the "COLR pool" that is randomly assigned to it.[3172] Sprint PCS supports the adoption of a competitive bidding mechanism under which all eligible telecommunications carriers in an area can receive support set by the lowest bid, with the lowest bidder getting a "bonus" payment.[3173] AirTouch states that the bidding process will likely require simultaneous multi-round auctions for service areas so that bidders can aggregate adjacent territories and therefore achieve economies of scope and scale.[3174] GTE advocates a sealed bid auction process, whereby, the low bidder and other bidders within a specified range of the low bid will receive support equal to the highest accepted bid.[3175] Ameritech also advocates a sealed bid auction, whereby the lowest bid wins and the second lowest bidder has an option to match. Under the Ameritech proposal, the total support amount would equal the amount of the lowest bid. Ameritech contends that if there is only one ILEC in a region, then support should be on a per-subscriber basis in order to provide an incentive to other carriers to serve the entire market. Ameritech contends that a fixed-fee subsidy levels the playing field between a COLR and an non-COLR. In the case of multiple COLRs, the second lowest bidder would have an option to match and

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[3169] GTE reply comments at 46 (*citing* Ameritech comments at 7).

[3170] GTE reply comments at 46 (*citing* Ameritech comments at 7).

[3171] Ex parte meeting on Universal Service Auctions, March 19, 1997.

[3172] Ex parte meeting on Universal Service Auctions, March 19, 1997.

[3173] Sprint PCS comments at 7 (*citing* NPRM at para. 36).

[3174] AirTouch comments at 24.

[3175] Ex parte meeting on Universal Service Auctions, March 19, 1997.

receive a fixed share of the COLR market -- for example, the lowest bidder would receive 75% of the subsidy in return for 75% of obligation and the second lowest bidder would get 25% of the COLR market and 25% of the fixed-fee subsidy.[3176]

208. GTE argues that the Commission needs to include a competitive bidding mechanism in the federal universal service support plan from the outset. The primary reason GTE cites is that any mechanism based on cost estimates, such as a proxy model, will set support levels incorrectly because errors in cost estimates are inevitable.[3177] GTE also contends that it will be more difficult to alter the support levels through a competitive bidding process once the support levels developed through other mechanisms become entrenched.[3178] To that end, GTE recommends that the Commission issue a Further Notice of Proposed Rule Making in this proceeding to build upon the existing public record on the specifics of a workable competitive bidding mechanism.[3179] AirTouch, on the other hand, states that the issues involved in developing a competitive bidding mechanism are sufficiently complex that they should be addressed in a separate proceeding.[3180]

209. Other commenters, however, oppose using competitive bidding to set support levels. Minnesota Coalition, RTC, and TDS Telecom argue that use of competitive bidding would violate the Act. They argue that basing support levels on the lowest bidder would not provide the "sufficient" and "predictable" support required by section 254(d).[3181] Minnesota Coalition argues that the prospect of recurring reductions in support levels due to periodic re-auctions would make rural

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[3176] Ex parte meeting on Universal Service Auctions, March 19, 1997.

[3177] GTE comments at 60.

[3178] GTE comments at 61.

[3179] GTE reply comments at 43, 46-47.

[3180] AirTouch comments at 24.

[3181] Minnesota Coalition comments at 27-28; RTC comments at 22-23; TDS Telecom comments at 43-44.

ILECs decisions to invest in infrastructure even more hazardous than use of a forward-looking cost methodology, and that such a risk is inconsistent with the Act's requirement that funding be predictable.[3182] TDS Telecom states that determining what support competing ILECs will receive based on the lowest bid would deny "sufficient" support to the other bidders.[3183] RTC contends that use of competitive bidding is also at odds with the Act's emphasis on quality services. It states that bidding will lead to a "race to the bottom" in regards to the quality of service, since the winning bidder would be the carrier that intends to commit the least amount of resources to providing service.[3184] RTC also argues that the Commission does not have the authority to compel states to use competitive bidding since the Act gives the states the authority to designate eligible carriers.[3185]

210. Several commenters argue that competitive bidding should not be adopted to establish universal service support since it would only work in areas where there are competing carriers.[3186] Minnesota Coalition argues that there will likely not be competing carriers in rural areas, particularly since section 214(e)(2) does not presume that there will be multiple eligible telecommunications carriers in areas served by rural telephone companies.[3187] AT&T and Teleport argue that using

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[3182] Minnesota Coalition comments at 29.

[3183] TDS Telecom comments at 44.

[3184] RTC comments at 22 (*citing* 47 U.S.C. § 254(b)(1)); RTC reply comments at 20-21.

[3185] RTC comments at 22 (*citing* 47 U.S.C. 214(e)).

[3186] *See* CNMI comments at 38; Minnesota Coalition comments at 27; WorldCom comments at 22.

[3187] Minnesota Coalition comments at 27 (citing section 214(e)(2)):

> Upon request and consistent with the public interest, convenience, and necessity, the State commission *may*, in the case of an area served by a rural telephone company, and *shall* in the case of other areas, designate more than one carrier as an eligible telecommunications carrier. . . . Before designating an additional eligible telecommunications carrier for an area served by a rural telephone company, the State shall find that the designation is in the public interest.

competitive bidding would be complex and expensive to administer.[3188] They also argue that GTE's proposal is anti-competitive because the ILEC would receive support automatically while a competing carrier must participate in an auction to be eligible for support.[3189]

211. In its reply comments, the City of Chicago disagrees with RTC that competitive bidding is in conflict with the Act. It argues that competitive bidding follows the goals of the Act by utilizing competitive forces to the maximum extent possible to provide service, and that it represents a close approximation of the conditions where competitive neutrality would prevail.[3190] Chicago also argues that it is unreasonable to assume that there will not be quality of service standards associated with the provision of universal service, and therefore RTC's concerns about the quality of service under a competitive bidding system are unfounded.[3191] GTE states that its proposal considers that competition will develop in different markets at different times by not requiring an auction to set support levels until a new entrant seeks to receive universal support payments.[3192] GTE also states that its proposal is no more of a barrier to entry than the bidding process that goes on every day in competitive markets.[3193]

VIII. SUPPORT FOR LOW-INCOME CONSUMERS

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47 U.S.C. § 214(e)(2) (emphasis added)).

[3188] AT&T reply comments at 9-10; Teleport reply comments, att. at 2.

[3189] AT&T reply comments at 9; Teleport reply comments, att. at 1.

[3190] Chicago reply comments at 17-18.

[3191] Chicago reply comments at 17.

[3192] GTE reply comments at 42.

[3193] GTE comments at 63.

A. Overview

212. The following is a summary of the comments relating to support for low-income consumers.

B. Authority to Revise Lifeline and Link Up Programs

1. Comments

213. Georgia PSC contends that while the Commission may have authority separate from section 254 to modify the Lifeline program, it should heed the "clear statement from Congress" in section 254(j) that no change was intended.[3194] BellSouth asserts that section 254 contemplates distinct federal and state low-income support funds and does not evidence any congressional intent to transfer to the interstate jurisdiction full responsibility for Lifeline.[3195] Furthermore, BellSouth contends that Congress did not intend for section 254 to affect Lifeline.[3196] Bell Atlantic asserts that states should prescribe the specific services that will help maintain subscribership among low-income consumers. Bell Atlantic argues that because most of the Joint Board's proposals affect local services and under the Act states retain exclusive jurisdiction over intrastate services, the Commission lawfully may not adopt mechanisms that affect the provision of local service.[3197]

C. Changes to Structure of Lifeline and Link Up

1. Comments

[3194] Georgia PSC reply comments at 19.

[3195] BellSouth comments at 18.

[3196] BellSouth comments at 18.

[3197] Bell Atlantic comments at 18.

a. Lifeline

214. Expanding Lifeline to Low-Income Consumers Nationwide. Several commenters agree with the Joint Board that all eligible telecommunications carriers should be required to offer Lifeline so that the program is available to as many low-income consumers as possible.[3198] With respect to the Joint Board's recommendation that in order to be eligible for universal service support a carrier must offer Lifeline, TURN asks the Commission to clarify that a carrier that provides Lifeline pursuant to a state program is considered eligible for support pursuant to section 214(e)(1).[3199] TURN is concerned that a carrier offering Lifeline in accordance with California's rules, which do not require verification of customer eligibility, could be denied federal universal service support.[3200]

215. Many commenters support the Joint Board's recommendation to eliminate the state matching requirement and make Lifeline available in every state.[3201] CNMI asserts that conditioning the availability of Lifeline on state participation would violate section 254(b)(3)'s requirement that consumers in all regions of the nation should have access to affordable telecommunications services.[3202]

[3198] *See, e.g.,* New York DPS comments at 11; SBC comments at 6; Universal Service Alliance comments at 13-14.

[3199] TURN comments at 4.

[3200] TURN comments at 4.

[3201] *See, e.g.,* AT&T comments at 15; Catholic Conference comments at 9; Citizens Utilities comments at 19; CNMI comments at 29; DC OPC comments at 2; Florida PSC comments at 5-7; GTE comments at 85; Kansas CC comments at 2; NASUCA comments at 11; NCTA comments at 15; New Jersey Advocate comments at 6; TURN comments at 3; Universal Service Alliance comments at 13; CPI reply comments at 18.

[3202] CNMI comments at 30.

216. Some commenters contend that further evidence of Lifeline's effect on subscription levels is needed before expanding Lifeline to every state, especially in light of the potential increase in the size of the federal funding mechanisms.[3203] For example, Georgia PSC and Kansas CC, emphasizing that low-income support programs must be targeted to increase subscribership, urge the Commission to compare subscription levels in states that participate in Lifeline and those that do not.[3204] Additionally, Georgia PSC and New York DPS recommend that the Commission examine the role of other assistance programs available to low-income consumers in non-participating states in deciding whether to expand Lifeline to every state.[3205] Georgia PSC further asserts that low-income support programs must be evaluated for their cost effectiveness and efficiency before being adopted.[3206]

217. Florida PSC questions whether the Joint Board's recommendation to require states to provide matching funds in order to receive support beyond the federal baseline amount, rather than requiring companies to do so by way of their rate-making process, would cause states to discontinue participation in Lifeline because of the necessity of establishing a funding mechanism for the program.[3207] Florida PSC believes that it will be necessary for states to establish universal service funding mechanisms for Lifeline rather than requiring companies to fund the state's portion of Lifeline through their rates.[3208]

[3203] *See, e.g.*, New York DPS comments at 14; USTA comments at 33; Georgia PSC reply comments at 17.

[3204] Kansas CC comments at 4; Georgia PSC reply comments at 17.

[3205] New York DPS comments at 15; Georgia PSC reply comments at 17.

[3206] Georgia PSC reply comments at 21 (also emphasizing that low-income programs should be subject to regular review to ensure that they meet these criteria).

[3207] Florida PSC comments at 6.

[3208] Florida PSC comments at 6-7.

218. Georgia PSC contends that the Commission should not attempt to mandate "whether and how the states participate in the Lifeline program" and asserts that states increasingly are establishing their own explicit universal service funding mechanisms.[3209] SNET, noting that the 1996 Act does not require that Lifeline and Link Up be amended, urges the Commission not to amend these programs but instead to allow the states to develop their own low-income support programs.[3210] BellSouth suggests that the Commission should review Lifeline after it promulgates its universal service rules, at which time it can assess the extent to which Lifeline should be modified.[3211]

219. Lifeline Support Amount. Many commenters support the Joint Board's recommendation to increase the federal Lifeline support amount to a $5.25 baseline level, with the potential for state matching, for a maximum federal support amount of $7.00.[3212] DC OPC maintains that expanding Lifeline to all states and increasing the federal baseline support to $5.25 per eligible subscriber ensures that all consumers, even in states without a matching contribution, receive adequate Lifeline assistance.[3213] NCTA asserts that the Joint Board's proposed support levels achieve the Joint Board's twin goals of extending Lifeline to every state and maximizing states' incentives to continue generating matching support.[3214] Furthermore, Sprint contends that an increased federal

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[3209] Georgia PSC reply comments at 20.

[3210] SNET comments at 7-8.

[3211] BellSouth reply comments at 11.

[3212] *See, e.g.,* Catholic Conference comments at 9; DC OPC comments at 2; Florida PSC comments at 2; NASUCA comments at 11; NCTA comments at 16; NYNEX comments at 9; Ohio PUC comments at 12; Washington UTC comments at 10-11 (but suggesting that the federal support amount may need to be modified in the future and that the Commission should continue to work with the states to monitor subscribership); CPI reply comments at 18.

[3213] DC OPC comments at 2.

[3214] NCTA comments at 16.

support amount is especially necessary as basic local service rates move closer to cost due to rate rebalancing, access charge reform, and changes in universal service policy.[3215]

220. Florida PSC is confident that states currently participating in Lifeline will continue to do so if the Commission expands Lifeline to every state and eliminates the matching requirement, but Florida PSC is skeptical about whether currently non-participating states will provide matching support.[3216] Other commenters are concerned that increasing the federal support amount may result in states' reducing their matching contributions.[3217] NYNEX, CPI, and SBC therefore maintain that the Commission should decline to increase support beyond the current $3.50 in currently participating states that reduce their matching support below existing levels.[3218] While it maintains that this proposal would reduce a state's incentive to decrease its support amount, CPI points out that it also might "place the low-income consumer in the midst of a game of 'chicken' between the FCC and the state commissions or legislatures."[3219] CPI also suggests that we set the federal support amount at a rate that is a percentage of the lower of prevailing rates or the national average rate and provide additional support only if a state maintains its matching contribution.[3220] Oregon PUC, on the other hand, maintains that the federal support amount should be the same for every state, regardless of

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[3215] Sprint reply comments at 6-7.

[3216] Florida PSC comments at 6-7.

[3217] CPI comments at 4; NYNEX comments at 9.

[3218] CPI comments at 4; NYNEX comments at 9 (specifying that this should be true provided that the combined state and federal support does not exceed the lowest monthly state rate for local telephone service, including the interstate SLC); SBC reply comments at 14. CPI suggests, however, that there would be an exception for states, such as New York, whose existing contributions are larger than the federal contribution.

[3219] CPI comments at 5.

[3220] CPI comments at 6. *See also* California Dept. of Consumer Affairs reply comments at 7-8 (endorsing CPI's proposal).

whether a previously-participating state ceases to participate in Lifeline.[3221]

221. Kansas CC suggests that the entire amount of federal funding should be conditioned on state participation in Lifeline.[3222] Thus, Kansas CC suggests that for every $1.00 of state funding, federal support mechanisms should provide $2.00, not to exceed $7.00 in federal support.[3223] Kansas CC maintains that federal support mechanisms doubling the state contribution "would further strengthen the incentive of states to participate in the program, while ensuring that universal service is not disproportionately funded by the federal jurisdiction."[3224] United Utilities, on the other hand, argues that the telecommunications carrier serving qualifying low-income consumers should receive $7.00 in federal support regardless of whether a state provides matching funds, because the state in which consumers reside should not determine whether they can receive the full amount of Lifeline support.[3225] Colorado PUC cautions the Commission to monitor the low-income support programs closely in order to avoid unintended expansion of the support mechanisms.[3226]

222. Several commenters[3227] address the question posed in the Recommended Decision Public Notice: "How can the FCC avoid the unintended consequence that the increased federal support amount has no direct effect on Lifeline subscribers' rates in many populous states with Lifeline programs, and instead results only in a larger percentage of the total support being generated

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[3221] Oregon PUC comments at 4.

[3222] Kansas CC comments at 3.

[3223] Kansas CC comments at 3-4.

[3224] Kansas CC comments at 3.

[3225] United Utilities comments at 4.

[3226] Colorado PUC reply comments at 3.

[3227] *See, e.g.,* California PUC comments at 11; CPI comments at 3-6; MCI comments at 13-14.

from federal sources?"[3228] California PUC and Citizens Utilities argue that the Joint Board's recommendation to expand Lifeline to every state and increase the federal support amount without requiring funding by the states will increase the size of the federal support mechanisms unduly and may simply shift the burden of supporting low-income consumers from the state to the federal jurisdiction.[3229] California PUC maintains that the proposed increased federal support amount would not benefit California's low-income consumers because California imposes a statewide Lifeline rate on all LECs; it asserts that increasing the federal support amount merely may result in a reduction in state funding to account for the increased funding from the federal jurisdiction.[3230] Washington UTC, on the other hand, is confident that the $7.00 cap on the federal support amount will guard against excessive support being generated from federal sources.[3231] Citizens Utilities suggests that every state should receive $3.50 in federal support per qualifying subscriber, plus additional funding equal to the amount provided by the state, for a maximum of $5.25 in federal funds. If a state chooses not to fund all or any of the $1.75 per qualifying subscriber, Citizens Utilities suggests that federal support would be reduced proportionately to the $3.50 minimum of federal support.[3232]

223. CPI and MCI note that the potential "unintended consequence" of an increased federal support amount having no direct effect on Lifeline subscribers' rates and instead resulting only in a larger percentage of the total support being generated from federal sources, may occur in states that already mandate relatively low Lifeline rates.[3233] CPI therefore suggests that the Commission should "limit the federal contribution [in states with low Lifeline rates] so that the price of phone service is

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[3228] Recommended Decision Public Notice at 1.

[3229] California PUC comments at 10; Citizens Utilities comments at 19.

[3230] California PUC comments at 11.

[3231] Washington UTC comments at 12.

[3232] Citizens Utilities comments at 19-20.

[3233] CPI comments at 3-4 (*citing* New York's Lifeline rate of only $1.00); MCI comments at 13-14.

not less than zero;"[3234] or, in other words, the support amount should not exceed the non-Lifeline rate, which would result in a windfall for carriers. MCI asserts that any changes in Lifeline should be directed toward low-income consumers in states currently without Lifeline.[3235] CPI emphasizes that an increased federal support amount might be more effective if, for example, Lifeline enrollment is made automatic, thereby increasing the number of people receiving Lifeline.[3236]

224. Some commenters contend that the federal support amount recommended by the Joint Board may be inadequate.[3237] Some of these commenters maintain that in making a final determination on the federal support amount, the Commission should evaluate states' telephone rates, economic status, and other state-specific factors.[3238] For example, Puerto Rico Tel. Co. maintains that in Puerto Rico, $5.25 in federal support is inadequate because, monthly rates could reach $30.00, and the median income level is low compared to the national median income level.[3239] Vermont PSB, questioning whether the federal support amount would be adequate for low-income consumers living in high cost areas, argues, along with Puerto Rico Tel. Co., that this will depend on the Commission's high cost rules, competition, and access charge reform.[3240] Vermont PSB maintains that the proposed federal support amount will be helpful to Lifeline consumers only if support for high cost, rural, and insular areas is sufficient to at least offset potential increases in rates resulting

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[3234] CPI comments at 3.

[3235] MCI comments at 14.

[3236] CPI comments at 4, n.3.

[3237] *See, e.g.,* CPI comments at 2; ITC comments at 7; Puerto Rico Tel. Co. comments at 15; South Carolina comments at 14-15.

[3238] *See, e.g.,* CPI comments at 2-3; Puerto Rico Tel. Co. comments at 15; South Carolina comments at 14-15; Vermont PSB comments at 11; Wyoming PSC comments at 10.

[3239] Puerto Rico Tel. Co. comments at 15-16.

[3240] Puerto Rico Tel. Co. comments at 15; Vermont PSB comments at 11-12.

from competition and access charge reform.[3241] Wyoming PSC, which also is concerned about the sufficiency of the proposed Lifeline support amount in high cost areas, maintains that the Commission should examine states' underlying costs of providing telephone service, as well as the availability of other state funds that could provide assistance.[3242]

225. CPI proposes that the Commission mandate more federal Lifeline support for low-income consumers living in areas with the highest rates.[3243] CPI claims that the proposed federal support amount of $5.25 will reduce the rates for low-income consumers to an average of $12.75, which it believes is unaffordable.[3244] CPI therefore suggests that the Commission set the federal Lifeline support amount at half of the national average rate, or half of the prevailing rate, for the designated services, whichever is lower.[3245] Thus, using a national average rate of approximately $18.00 ($14.50 plus the SLC), the resulting rate for Lifeline subscribers would be $9.00. In areas where the prevailing rate is lower than the national average, the discount would be proportionately smaller.[3246] Similarly, ITC recommends that the Commission should determine an affordable Lifeline rate and set the federal support amount accordingly.[3247] Alternatively, ITC recommends either: (1) establishing a capped level of local service revenue per line and then providing a fixed amount of support; or (2) determining support as a percentage of the total rate for local service.[3248]

[3241] Vermont PSB comments at 12.

[3242] Wyoming PSC comments at 10.

[3243] CPI comments at 2-3.

[3244] CPI comments at 2.

[3245] CPI comments at 1.

[3246] CPI comments at 1.

[3247] ITC comments at 7.

[3248] ITC comments at 7.

226. Several commenters assert that the federal Lifeline support amount should not be increased absent further analysis demonstrating that such a change will have a significant impact on subscribership levels among low-income consumers.[3249] A number of carriers and two state commissions argue that the main reason customers lose access to telecommunications service is for failure to pay toll bills, rather than because of unaffordable local rates.[3250] They contend that increasing the federal support amount to $5.25 in every state may increase the overall size of the universal service support mechanisms without increasing subscribership to the same degree as, for example, mandating the availability of toll blocking for low-income consumers.[3251] AT&T therefore suggests that the current $3.50 federal support amount should be extended to all states for two to three years, at which time the Commission should assess whether other measures recommended by the Joint Board, such as toll limitation and no disconnection of local service for non-payment of toll charges, have resulted in a more substantial impact on subscribership.[3252] Colorado PUC also suggests that the Commission should monitor the degree to which subscribership levels are affected by mechanisms besides increased Lifeline support, such as no disconnect for non-payment of toll charges.[3253] Georgia PSC argues that the Commission should examine pre-paid phone cards, wireless service, and toll-limitation services before increasing the support amount.[3254] SBC recommends that,

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[3249] *See, e.g.*, AT&T comments at 15; Centennial comments at 11-12 (arguing that Washington, D.C. offers low telephone rates to low-income consumers, but its subscribership levels have remained flat); Fred Williamson comments at 4; MCI comments at 13; MFS comments at 28; New York DPS comments at 15; SBC comments at 7-8; USTA comments at 33; ACTA reply comments at 4; Georgia PSC reply comments at 17.

[3250] AT&T comments at 16; MFS comments at 28; SBC comments at 7; Chicago reply comments at 7; Georgia PSC reply comments at 18.

[3251] AT&T comments at 16; MFS comments at 28; SBC comments at 7; Georgia PSC reply comments at 18.

[3252] AT&T comments at 16.

[3253] Colorado PUC reply comments at 2.

[3254] Georgia PSC reply comments at 19.

in the absence of evidence supporting an increased federal support amount, federal support should remain at $3.50 and match dollar-for-dollar any state contribution over $3.50, with a maximum of $7.00 in federal support.[3255] Additionally, New Jersey Advocate suggests that lower rates will not increase subscribership among low-income consumers in states such as New Jersey, in which small local calling areas result in toll charges being the main reason subscribers lose access to telecommunications services, rather than unaffordable local rates.[3256] Finally, BellSouth argues that federal support cannot exceed the amount of the SLC, because the local rate includes no other federal charge that can be waived.[3257]

227. Making Lifeline Competitively Neutral. Many commenters support the Joint Board's recommendation to make Lifeline competitively neutral by requiring all interstate telecommunications carriers to contribute to low-income universal service support mechanisms and by allowing all eligible carriers to receive support.[3258] AT&T and Sprint, for example, concur with the Joint Board that requiring all interstate telecommunications carriers to contribute would make the program competitively neutral and more consistent with the principles enumerated in section 254.[3259] AT&T emphasizes, however, that a carrier offering Lifeline must offer: (1) the rate for that service less the full amount of the subsidy, so there is no windfall to the carrier; and (2) the local service that best

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[3255] SBC comments at 8. *See also* Georgia PSC reply comments at 20 (supporting SBC's proposal if the Commission decides to change the current federal universal service support mechanisms).

[3256] New Jersey Advocate comments at 4.

[3257] BellSouth comments at 18.

[3258] *See, e.g.,* AT&T comments at 15; California PUC comments at 10; MCI comments at 12; New York DPS comments at 13-14; North Dakota PSC comments at 2; Ohio PUC comments at 13; Sprint comments at 4; Washington UTC comments at 11; WorldCom comments at 22-23.

[3259] AT&T comments at 15; Sprint comments at 4.

meets customers' needs.[3260] Sprint notes that requiring all interstate telecommunications carriers to contribute will help move interstate access rates closer to their economic cost and thus reduce some of the pricing distortions and incorrect market entry signals caused by implicit subsidies.[3261]

228. California PUC submits that all carriers, not just eligible telecommunications carriers as defined in section 214(e)(1), should be able to receive support from universal service support mechanisms for providing Lifeline.[3262] It asserts that, while the requirements for becoming an eligible carrier may be suitable for carriers seeking high cost support, they are inappropriate when applied to low-income programs.[3263] California PUC maintains that, depending on the relationship between costs and the benchmark, eligible-carrier status may be irrelevant in urban areas where carriers do not seek high cost support.[3264] BANX, on the other hand, contends that the Commission should reject California PUC's proposal to provide low-income universal service support to non-eligible telecommunications carriers.[3265]

229. California PUC, TURN, and California Dept. of Consumer Affairs assert that the Joint Board's recommendation to prohibit carriers operating on a purely resale basis from becoming eligible carriers will inhibit competition to serve low-income consumers.[3266] TURN argues that

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[3260] AT&T comments at 16-17, n.12.

[3261] Sprint comments at 4.

[3262] California PUC comments at 12.

[3263] California PUC comments at 12.

[3264] California PUC comments at 12-13.

[3265] BANX reply comments at 18.

[3266] California PUC comments at 12; TURN comments at 6; California Dept. of Consumer Affairs reply comments at 5.

resellers should be eligible to provide Lifeline so that resellers' customers are able to receive Lifeline.[3267] TURN offers two suggestions for achieving these objectives: (1) require LECs to offer wholesale Lifeline service (with appropriate wholesale discounts based on avoided costs) to resellers and receive support from universal service support mechanisms; or (2) permit resellers to provide Lifeline and receive support for doing so.[3268] California PUC supports both of the approaches suggested by TURN.[3269] CPI states that nothing precludes resellers from participating in Lifeline.[3270]

230. Robert J. Lock argues that the Commission should reform existing programs and create opportunities and incentives for all carriers, including wireless providers, to serve low-income individuals.[3271] He asserts that regulatory barriers that deny wireless providers the opportunity to offer Lifeline and Link Up eliminate any incentive for these carriers to compete to serve low-income consumers.[3272]

231. WinStar contends that competitive neutrality would not be advanced if the Commission denies universal service support to carriers, such as wireless providers, that are technically incapable of offering Lifeline to certain customers or areas.[3273] WinStar maintains that because of its 38 GHz technology, it will be unable to reach many low-income consumers living in

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[3267] TURN comments at 7.

[3268] TURN comments at 7.

[3269] California PUC reply comments at 5-6.

[3270] CPI reply comments at 14-15.

[3271] Robert J. Lock comments at 27.

[3272] Robert J. Lock comments at 28-29.

[3273] WinStar comments at 4, 12-13.

urban areas whose access to WinStar's network is blocked by buildings or other obstructions.[3274]

232. Several commenters support the Joint Board's recommendation to break the link between federal Lifeline support and the SLC so that carriers that do not charge SLCs may offer Lifeline rates and receive Lifeline support.[3275] BellSouth, however, disagrees with the Joint Board and asserts that federal Lifeline support should remain tied to the interstate charges paid by end users, which is presently the SLC.[3276] It further states that if the Commission adopts an end user surcharge as a recovery mechanism for universal service support contributions, such surcharges could also be included in the federal baseline amount supported for Lifeline customers.[3277]

233. Customer Qualification to Receive Lifeline Service. AT&T and Washington UTC agree with the Joint Board that the states should specify customer qualification criteria for Lifeline.[3278] Additionally, several commenters support the Joint Board's recommendation that Lifeline eligibility should be based solely on income or factors directly related to income, such as enrollment in low-income assistance programs.[3279] Benton and Edgemont jointly suggest that the criteria in all states be participation in a federal means-tested assistance program by any member of a

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[3274] WinStar comments at 12-13.

[3275] *See, e.g.,* MFS Communications comments at 29; New York DPS comments at 14; Sprint comments at 4; WorldCom comments at 22-23.

[3276] BellSouth comments at 18.

[3277] BellSouth comments at 18.

[3278] AT&T comments at 17; Washington UTC comments at 11-12.

[3279] *See, e.g.,* AT&T comments at 17; California PUC comments at 13; GTE comments at 85; USTA comments at 33; Washington UTC comments at 12.

household.[3280] Specifically, Benton and Edgemont suggest that Lifeline enrollment be automatic based on participation in Medicaid, food stamps, Supplemental Security Income, public housing assistance and Section 8,[3281] Low-Income Home Energy Assistance Program (LIHEAP), or the school lunch program.[3282] In light of the recent restructuring of the welfare system, Benton and Edgemont also propose that recipients of an Earned Income Tax Credit be automatically enrolled in Lifeline.[3283] Catholic Conference, however, advises the Commission not to adopt the Joint Board's suggestion to base qualification on enrollment in low-income assistance programs because of the recently-enacted welfare reform law.[3284] Catholic Conference asserts that, because the new law places greater restrictions on qualification for certain low-income assistance programs, the Commission would thwart the Joint Board's goal of increasing subscribership among low-income consumers if it based Lifeline qualification on participation in state-administered welfare programs.[3285] Catholic Conference therefore suggests that the Commission should impose a federal qualification rule that could be based on income and adjusted by state.[3286]

234. USTA and AT&T assert that the Commission should require states to verify customers'

[3280] Letter from Ellis Jacobs, Edgemont, and Kevin Taglang, Benton, to William F. Caton, dated February 21, 1997 (Benton and Edgemont February 21 *ex parte*).

[3281] Section 8 is a federal housing assistance program administered by the Department of Housing and Urban Development.

[3282] Benton and Edgemont February 21 *ex parte.*

[3283] Benton and Edgemont February 21 *ex parte.*

[3284] Catholic Conference comments at 9-10, *citing* The Personal Responsibility and Work Opportunity Reconciliation Act of 1996, P.L. 104-193 (1996).

[3285] Catholic Conference comments at 9-10.

[3286] Catholic Conference comments at 10.

qualifications and prohibit self-certification in order to receive federal support.[3287] Furthermore, California Dept. of Consumer Affairs maintains that, while California's policy of permitting consumers to self-certify that they qualify for Lifeline initially may have been necessary and appropriate in order to encourage Lifeline participation, the additional incentive to apply is no longer necessary now that the Lifeline is widely subscribed to.[3288] California Dept. of Consumer Affairs suggests that if the Commission decides to require verification of Lifeline eligibility, there should be a transition period in which California could make the changes necessary to comply with this requirement.[3289] California Dept. of Consumer Affairs further notes that the California PUC has directed its staff to investigate the possibility of requiring income verification.[3290]

235. California PUC and TURN, on the other hand, urge the Commission to continue to permit California to allow self-certification and in turn receive a reduced level of federal support, although California PUC acknowledges that it is exploring the prospect of implementing a verification program.[3291] Similarly, Universal Service Alliance avers that states should have the discretion to use either self-certification or income verification in determining customer eligibility, based on the asserted success of self-certification in California.[3292]

236. CPI recommends that the Commission should make Lifeline enrollment automatic, matching welfare recipient lists against telephone bills so that individuals receiving

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[3287] AT&T comments at 17; USTA comments at 33.

[3288] California Dept. of Consumer Affairs reply comments at 6-7.

[3289] California Dept. of Consumer Affairs reply comments at 6-7.

[3290] California Dept. of Consumer Affairs reply comments at 6-7.

[3291] California PUC comments at 11; TURN comments at 3.

[3292] Universal Service Alliance comments at 14.

low-income assistance would automatically be enrolled in Lifeline.[3293] As New York DPS explains, such a procedure has been implemented in New York, where NYNEX receives qualification information from the New York Department of Social Services (NYDSS) and the New York City Community Development Agency (NYCDA).[3294] This information is used to enroll customers in the program automatically and also ensure that individuals stop receiving Lifeline service if they no longer qualify.

b. Link Up

237. Several commenters support the Joint Board's recommendation that Link Up should be removed from the jurisdictional separations rules and made competitively neutral, with support coming from the new universal service support mechanisms.[3295] Additionally, Ohio PUC agrees with the Joint Board that the amount of Link Up support should remain unchanged.[3296] Edgemont, on the other hand, contends that in order to increase subscribership, the Commission should completely eliminate service connection charges.[3297] New Jersey Advocate also suggests that if they elect to receive toll limitation, Lifeline customers should not have to pay any service connection charges.[3298]

238. Catholic Conference and Robert J. Lock support the Joint Board's

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[3293] CPI comments at 4, n.3.

[3294] Memo from Terry Monroe, New York DPS, to Chuck Keller, FCC, dated January 28, 1997 (New York DPS January 28 *ex parte*).

[3295] *See, e.g.,* CNMI comments at 30; GSA comments at 7-8; Ohio PUC comments at 12.

[3296] Ohio PUC comments at 11-12.

[3297] Edgemont comments at 2.

[3298] New Jersey Advocate comments at 6.

recommendation to prohibit states from restricting the number of service connections per year for which eligible low-income consumers can receive support.[3299] These parties maintain that such a policy is vital for migrant farmworkers and other low-income consumers who frequently change residences.[3300] Robert J. Lock, however, notes that in not placing restrictions on the number of connections permitted per year, the costs of the program will increase.[3301]

239. Several commenters support the Joint Board's recommendation that, in order to be eligible for Link Up, consumers must meet a state-established means test or a federal default standard based on income or factors directly related to income.[3302] California PUC, noting that California does not participate in the federal Link Up program, encourages the Commission to coordinate the revised Link Up program with existing state efforts, without duplicating resources.[3303]

D. Services Included in Lifeline and Link Up

1. Comments

240. Designated Services. Many commenters support the Joint Board's recommendation that Lifeline customers should receive all those services designated for support in high cost areas, arguing that, under section 254(b)(3), access to services should be

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[3299] Catholic Conference comments at 8-9; Robert J. Lock comments at 16-18.

[3300] Catholic Conference comments at 8-9; Robert J. Lock comments at 16-18.

[3301] Robert J. Lock comments at 16-18.

[3302] *See, e.g.,* CNMI comments at 30; GTE comments at 85.

[3303] California PUC comments at 11-12.

available to "[c]onsumers in all regions of the Nation, including low-income consumers."[3304] United Church of Christ further emphasizes that the deployment of the designated services in low-income areas should not lag behind their deployment elsewhere.[3305]

241. Toll-Limitation Services. Many commenters support the Joint Board's recommendation that Lifeline customers should receive voluntary toll limitation free of charge.[3306] AT&T, SBC, Georgia PSC, and others, maintaining that toll limitation will increase subscribership among low-income consumers, point to evidence indicating that unpaid toll bills are the main reason people lose access to telecommunications services.[3307] Several commenters assert that toll limitation, rather than an increased federal Lifeline support amount, may make the most significant impact on subscribership levels.[3308] CNMI supports the Joint Board's recommendation that the Commission should require carriers currently incapable of providing toll limitation to add the capability in any switch upgrades.[3309]

[3304] *See, e.g.,* Catholic Conference comments at 9; Citizens Utilities comments at 30; NCTA comments at 15-16; Washington UTC comments at 11.

[3305] United Church of Christ comments at 2-4 (further recommending that the Commission take steps to ensure that low-income consumers living in urban areas are "proportionately represented at each stage of deployment" of telecommunication services, as compared to individuals living in suburban and rural areas).

[3306] *See, e.g.,* California PUC comments at 10; Catholic Conference comments at 9; CNMI comments at 31; DC OPC comments at 1; Florida PSC comments at 4; GSA comments at 8-9; MFS comments at 27; NASUCA comments at 9; Ohio PUC comments at 8; Public Advocates comments at 2; SBC comments at 7; TURN comments at 2; WorldCom comments at 23; AT&T reply comments at 19; Georgia PSC reply comments at 2.

[3307] *See, e.g.,* DC OPC comments at 1, 3; SBC comments at 7; AT&T reply comments at 19; Chicago reply comments at 7; Georgia PSC reply comments at 20.

[3308] *See, e.g.,* AT&T comments at 16; MFS comments at 28; New Jersey Advocate comments at 5; SBC comments at 7; Chicago reply comments at 7; Georgia PSC reply comments at 18.

[3309] CNMI comments at 31.

242. California Dept. of Consumer Affairs, on the other hand, is concerned that the cost of providing toll limitation to Lifeline customers at no charge will unduly burden other telecommunications customers,[3310] and suggests that toll limitation should be provided to low-income consumers at a reduced fee so that they will better appreciate and manage the service they are receiving.[3311]

243. PacTel agrees with the Joint Board that carriers providing toll limitation as part of Lifeline should receive support from the universal service support mechanisms.[3312] PacTel argues, however, that carriers should receive support for both their start-up costs for initiating toll limitation services and lost revenue (defining lost revenue as the amount customers normally would pay for toll limitation).[3313] This support, PacTel asserts, would cover the incremental costs and the portion of joint and common costs associated with the service.[3314] PacTel also asserts, however, that the Commission should "allow carriers to devise specific solutions targeted at their own customers, rather than dictating a regulatory approach," citing studies concluding that consumers would prefer toll control services, rather than toll blocking. PacTel claims that consumers want services such as prepaid toll services and the ability to choose their own monthly toll cap.[3315]

244. While Ameritech and California Dept. of Consumer Affairs support the Joint

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[3310] California Dept. of Consumer Affairs comments at 10.

[3311] California Dept. of Consumer Affairs comments at 41-42.

[3312] PacTel comments at 30.

[3313] PacTel comments at 31.

[3314] PacTel comments at 31.

[3315] PacTel comments at 34.

Board's recommendation that Lifeline customers should receive toll blocking free of charge, they are concerned that it may be difficult for carriers to provide toll control. Chicago, on the other hand, supports toll control and contends that it should be "made a priority" as long as CLECs and ILECs are treated alike.[3316] Ameritech explains that toll control requires carriers to conduct "real time recording and rating of calls" made by subscribers using carriers other than the billing LEC.[3317] Ameritech points out, for example, that it does not rate calls[3318] made using other long distance carriers, so it would be unable to block calls immediately once Lifeline subscribers had reached their limit of toll calls, if the subscriber used another carrier to place toll calls.[3319] For reasons similar to those Ameritech offers, California Dept. of Consumer Affairs urges the Commission not to take action regarding toll control in the absence of further analysis of the potential costs of such a policy.[3320] Additionally, California Dept. of Consumer Affairs questions whether customers who reach their toll limit would be prohibited from placing any more calls until the bill is paid or until the beginning of the next month.[3321] In the latter case, California Dept. of Consumer Affairs maintains that customers would still be able to incur substantial toll charges.[3322]

245. MFS and Ohio PUC urge the Commission to adopt the Joint Board's

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[3316] Chicago reply comments at 8.

[3317] Ameritech comments at 16.

[3318] "Rating calls" means recording the call's details, such as time of day, origin, termination, and duration, and applying the applicable tariff so that the charge for the call can be established.

[3319] Ameritech comments at 16.

[3320] California Dept. of Consumer Affairs reply comments at 12.

[3321] California Dept. of Consumer Affairs comments at 42.

[3322] California Dept. of Consumer Affairs comments at 42.

recommendation that only low-income consumers should receive toll limitation free of charge.[3323] New Jersey Advocate, on the other hand, believes that all consumers, not just low-income consumers, should receive toll limitation free of charge.[3324] New Jersey Advocate bases its argument on New Jersey's small calling areas and the resulting number of consumers who regularly incur toll charges.[3325]

246. No Disconnection for Non-Payment of Toll Charges. A number of commenters support the Joint Board's recommendation that carriers should be prohibited from disconnecting Lifeline customers' local service for non-payment of toll charges.[3326] Many of these commenters contend that such a policy will help increase subscribership among low-income consumers.[3327] Ohio PUC notes that prohibiting local service disconnection for non-payment of toll charges also "contributes to a level playing field in the competitive market."[3328] Moreover, TRA agrees with the Joint Board that a policy prohibiting disconnection of local service for non-payment of toll charges may encourage carriers to offer toll limitation to Lifeline subscribers.[3329] AT&T notes the relationship between disconnection

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[3323] MFS comments at 27; Ohio PUC comments at 8.

[3324] New Jersey Advocate comments at 5-6.

[3325] New Jersey Advocate comments at 6.

[3326] *See, e.g.*, Catholic Conference comments at 8; CNMI comments at 31-32; Edgemont comments at 2; GSA comments at 7-8; NASUCA comments at 10; New Jersey Advocate comments at 6; Ohio PUC comments at 9; Public Advocates comments at 2; Telco comments at 12; TURN comments at 2; West Virginia Consumer Advocate comments at 6; WorldCom comments at 24; Chicago reply comments at 7-8; CPI reply comments at 17, 19.

[3327] *See, e.g.*, Catholic Conference comments at 8; DC OPC comments at 4; GSA comments at 7-8.

[3328] Ohio PUC comments at 9.

[3329] TRA reply comments at 15.

for non-payment of toll charges and low subscribership levels among low-income consumers, but asserts that the Commission should establish a "finite grace period after which carriers could disconnect" customers who have not paid their toll bills.[3330]

247. Some commenters seek to emphasize that a policy of no disconnection for non-payment of toll charges should apply only to Lifeline customers, as the Joint Board recommended.[3331] Moreover, WorldCom maintains that the Commission should emphasize that states are not required to adopt a no-disconnect policy for all end users.[3332] DC OPC, on the other hand, contends that all customers should benefit from a policy prohibiting disconnection of local service for non-payment of toll charges.[3333]

248. Several commenters would support a policy prohibiting termination of Lifeline customers' local service for non-payment of toll charges as long as the customers are required to accept toll limitation.[3334] Ameritech and MFS assert that such a condition will help guard against abuse of the no-disconnect policy.[3335] MFS further suggests that customers and the IXC should develop an extended payment plan or agree that the charges will be forgiven before a LEC is required not to disconnect the customer's local service for non-payment of

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[3330] AT&T comments at 17 and reply comments at 19-20.

[3331] *See, e.g.,* WorldCom comments at 24; Telco reply comments at 8; TRA reply comments at 15.

[3332] WorldCom comments at 24.

[3333] DC OPC comments at 4.

[3334] *See, e.g.,* Ameritech comments at 16; Bell Atlantic comments at 18; MFS comments at 27-28; New Jersey Advocate comments at 5-6; SBC comments at 8 (opposing prohibiting carriers from disconnecting service for non-payment of toll bills, but arguing that if the Commission implements such a policy, carriers must be allowed to impose mandatory toll limitation on Lifeline customers with a demonstrated history of unpaid toll bills); Sprint comments at 18 n.10.

[3335] Ameritech comments at 16.

toll charges.[3336] Sprint suggests that the toll limit be set at a level such as $10.00, which would provide adequate access to long distance service while still offering long distance carriers protection against uncollectible toll bills.[3337]

249. On the other hand, several commenters urge the Commission not to adopt the Joint Board's recommendation that carriers be prohibited from disconnecting Lifeline customers' local service for non-payment of toll charges.[3338] Some of these parties cite a lack of evidence that such a policy would increase subscribership.[3339] MCI, PacTel, USTA, and TRA argue that carriers in states that have implemented such a policy have experienced more uncollectible toll bills and a decline in subscribership.[3340] BellSouth argues that, because Lifeline customers can control toll charges by accepting toll limitation, prohibiting disconnection for non-payment of toll charges would not advance universal service.[3341]

250. Other parties opposing a policy of no disconnect for non-payment of toll bills argue that such a policy will generate losses for IXCs and increase toll fraud.[3342] MCI,

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[3336] MFS comments at 28.

[3337] Sprint comments at 18 n.10.

[3338] *See, e.g.,* California Dept. of Consumer Affairs comments at 42; GTE comments at 85-87; MCI comments at 12-13; PacTel comments at 31-37; USTA comments at 33; ACTA reply comments at 4; BellSouth reply comments at 11; Telco reply comments at 7-8.

[3339] *See, e.g.,* GTE comments at 87; MCI comments at 12; PacTel comments at 31; Sprint reply comments at 6.

[3340] MCI comments at 12; PacTel comments at 32; USTA comments at 33; TRA reply comments at 15-16.

[3341] BellSouth comments at 11.

[3342] *See, e.g.,* California Dept. of Consumer Affairs comments at 42; MCI comments at 12; BellSouth reply comments at 11.

PacTel, and others assert that uncollectible toll bills will drive up the cost of long distance services for consumers.[3343] GTE maintains that a no-disconnect policy will force carriers to cross-subsidize uncollectible toll bills with revenues obtained from customers who pay their toll bills.[3344] GTE argues that this would create a hidden subsidy in violation of the Act's mandate that universal service be explicit and sufficient, unless support is provided to offset uncollectible toll charges incurred as a result of the prohibition.[3345] PacTel argues that, in addition to support for uncollectible toll bills, universal service support mechanisms should provide support for the increased costs associated with upgrading billing and collection systems and time spent explaining the new policy to customers.[3346] In the alternative, PacTel asserts, it should receive an exogenous cost adjustment as compensation for such upgrades.[3347]

251. PacTel asserts that it is beyond the scope of section 254 for the Commission to implement a rule prohibiting disconnection of local service for non-payment of interstate charges.[3348] PacTel argues that the Joint Board goes beyond the intent of section 254 to enhance universal service by "attempting, without factual support, to devise a means for customers who have such access to remain on the network regardless of the consequences to the industry."[3349] Additionally, ACTA asserts, without further elaboration, that such a policy

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[3343] *See, e.g.*, MCI comments at 12; PacTel comments at 34; TRA reply comments at 16.

[3344] GTE comments at 85-86.

[3345] GTE comments at 85; PacTel comments at 34-35.

[3346] PacTel comments at 34-35.

[3347] PacTel comments at 35.

[3348] PacTel comments at 36-37.

[3349] PacTel comments at 36-37.

is "constitutionally suspect."[3350] GTE further contends that (1) the recommendation prohibiting disconnection for non-payment of toll charges is an "unjustifiable and unwarranted governmental intrusion into the affairs of private businesses," especially in light of the pro-competitive, deregulatory marketplace that Congress envisioned in passing the 1996 Act, and (2) merely providing the option of toll limitation does not justify a disconnection prohibition.[3351] GTE and PacTel argue that market-driven initiatives, rather than regulatory policies, will have a greater impact on subscribership among low-income consumers than the rule prohibiting disconnection for non-payment of toll.[3352] GTE and PacTel therefore maintain that the Commission should let carriers and the states devise means of increasing subscribership.[3353] PacTel, for example, claims to have improved subscribership through partnerships with community organizations.[3354] WorldCom suggests that, as an alternative to a policy prohibiting disconnection of local service for non-payment of toll charges, the Commission could prohibit carriers from disconnecting Lifeline customers' access to certain critical services, such as 911 (emergency service) and 611 (telephone repair service).[3355]

252. PacTel argues that if the Commission adopts a no-disconnect policy, it should relax the waiver requirements proposed by the Joint Board so that carriers need only provide effective toll-limitation services to obtain a waiver.[3356] PacTel opposes the waiver requirement

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[3350] ACTA reply comments at 4.

[3351] GTE comments at 86.

[3352] GTE comments at 85-86; PacTel comments at 33.

[3353] GTE comments at 85-86; PacTel comments at 33.

[3354] PacTel comments at 33.

[3355] WorldCom reply comments at 15.

[3356] PacTel comments at 31-32, 36.

proposed by the Joint Board that "telephone subscribership among low-income consumers in the carrier's service area must [be] at least as high as the national subscribership level for low-income consumers." PacTel argues, however, that if it adopts such a requirement, the Commission should require the difference between the national subscribership level and the level in the carrier's service area to be at least three percentage points.[3357]

253. Prohibition on Service Deposits. Several commenters support the Joint Board's recommendation to prohibit customer service deposits,[3358] provided that the customer accepts toll limitation, where available.[3359] Commenters assert that the elimination of service deposits may help increase subscribership among low-income consumers.[3360] Furthermore, DC OPC notes that requiring customers to accept toll-limitation service in order to have their service deposit waived will significantly reduce the risk of uncollectible toll bills.[3361] Edgemont and Ohio PUC support the Joint Board's recommendation to eliminate service deposits, but they do not believe the Commission should require customers to accept toll limitation in order to benefit from this policy.[3362]

254. USTA argues that there is an insufficient correlation between toll limitation

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[3357] PacTel comments at 36.

[3358] Customer service deposits are distinct from service connection charges; service connection charges pay for the cost of the initial connection to the network.

[3359] *See, e.g.,* CNMI comments at 33; DC OPC comments at 1, 3-4; NASUCA comments at 10; New Jersey Advocate comments at 6; SBC comments at 7; TURN comments at 2; Catholic Conference reply comments at 8-9; Georgia PSC reply comments at 20.

[3360] *See, e.g.,* Catholic Conference comments at 8-9; DC OPC comments at 1, 3-4; Florida PSC comments at 4-5; Ohio PUC comments at 12.

[3361] DC OPC comments at 3.

[3362] Edgemont comments at 2; Ohio PUC comments at 12.

and service deposits, because customers' acceptance of toll limitation does not provide carriers with protection against customers with poor credit history.[3363] While toll limitation may prevent toll bills from increasing, USTA argues, it does not give customers an incentive to pay outstanding balances. GTE opposes the Joint Board's recommendation that service deposits be prohibited if a customer accepts toll limitation because (1) "toll blocking service is not effective when an individual is determined to evade [toll] blocking"; and (2) the policy would not allow carriers to receive support for any losses they may incur in eliminating service deposits for Lifeline customers.[3364]

255. California Dept. of Consumer Affairs supports a "minimal" service deposit for Lifeline customers who elect to receive toll limitation.[3365] Ameritech claims that a complete waiver of service deposits may not be appropriate in all cases, especially in jurisdictions with usage-based local rates.[3366]

256. Edgemont urges the Commission to find that (1) companies offering local service may only seek repayment of their own local arrearage for customers seeking to reestablish local service; and (2) companies must make reasonable repayment arrangements for both local and toll arrearages.[3367] In this way, Edgemont argues, many potential Lifeline customers will be able to benefit from low-income support programs, while the companies will be able to collect on arrearages.[3368]

[3363] USTA comments at 34.

[3364] GTE comments at 87-88.

[3365] California Dept. of Consumer Affairs reply comments at 11.

[3366] Ameritech comments at 16-17.

[3367] Edgemont comments at 3-4.

[3368] Edgemont comments at 3-4.

257. Special Needs Equipment for Low-income Individuals with Disabilities. A few commenters disagree with the Joint Board's recommendation that universal service support for low-income consumers with disabilities need not be addressed in this proceeding because it will be addressed in a separate proceeding to implement section 255.[3369] NAD, United Cerebral Palsy Ass'n, and Universal Service Alliance maintain that basic access to voice telephony and other wireline service is often very expensive for people with disabilities.[3370] Furthermore, United Cerebral Palsy Ass'n and Consumer Action assert that people with disabilities are among the poorest in the nation.[3371] National Telecommuting Institute proposes that employers that hire low-income, homebound individuals with disabilities should receive a waiver for all voice and data line charges incurred between the employee and company, with the service provider receiving support from universal service support mechanisms.[3372]

258. Additionally, NAD, United Cerebral Palsy Ass'n, and Universal Service Alliance disagree with the Joint Board's reliance on section 255 to address access to telecommunications services for people with disabilities.[3373] NAD and United Cerebral Palsy

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[3369] *See, e.g.,* NAD comments at 2-5; United Cerebral Palsy Ass'n comments at 3-6; Universal Service Alliance comments at 5-7; Consumer Action reply comments at 3-4.

[3370] NAD comments at 2-5; United Cerebral Palsy Ass'n comments at 3; Universal Service Alliance comments at 6-7.

[3371] United Cerebral Palsy Ass'n comments at 5; Consumer Action reply comments at 3-4.

[3372] Letter from M.J. Willard, National Telecommuting Institute, Inc., and the President's Committee on Employment of People with Disabilities, to William F. Caton, FCC, (National Telecommuting Institute, Inc. *ex parte*) (also recommending that if training is necessary to prepare a homebound individual for a telecommuting position, the cost of connecting the trainee to the trainer through telephone lines be covered by universal service support mechanisms).

[3373] NAD comments at 2-4; United Cerebral Palsy Ass'n comments at 5; Universal Service Alliance comments at 7.

Ass'n contend that, although section 255 requires access to telecommunications devices and services, it does not require the establishment of specialized customer premises equipment distribution programs or the development of funding sources for that purpose, nor provide for the needed funding to create parity in toll charges for TTY users.[3374] NAD and Consumer Action also maintain that the Commission has not made clear what action it intends to take with respect to section 255, including whether it will issue a rulemaking.[3375]

259. Support for Non-profit Organizations. A few commenters argue that community organizations providing services to low-income individuals should receive support from universal service support mechanisms.[3376] Public Advocates argues that providing universal service support to community organizations is one of the most efficient and effective ways of adhering to the statutory principle that "access to advanced telecommunications services should be provided in all regions of the nation."[3377] Catholic Conference maintains that universal service support should be given to organizations and social service agencies providing voice mail to homeless individuals and migrant farmworkers.[3378] Alternatively, Catholic Conference argues, universal service support should be given to such entities for providing telephone service, because many of the people they serve lack access to a residential line.[3379] Alliance for Community Media suggests that universal service support should be available to community computing centers so that low-income individuals could

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[3374] NAD comments at 4-5; United Cerebral Palsy Ass'n comments at 5.

[3375] NAD comments at 4 n.1; Consumer Action reply comments at 3-4.

[3376] *See, e.g.,* Alliance for Community Media comments at 8-9; Catholic Conference comments at 7; Public Advocates comments at 4-7.

[3377] Public Advocates comments at 6, *citing* 47 U.S.C. § 254(b)(2).

[3378] Catholic Conference comments at 7.

[3379] Catholic Conference comments at 7.

gain access to the Internet and other advanced communications services.[3380] Community Colleges argues that many community colleges constitute low-income consumers and therefore should qualify for Lifeline support.[3381]

260. Non-Residential Services. Catholic Conference disagrees with the Joint Board's recommendation that low-income support should be limited to residential services and asserts that universal service support should be provided to low-income consumers for voice messaging service.[3382] Voice messaging service for people who lack access to a residential line, such as homeless individuals and migrant farmworkers, meets all of the criteria enumerated in section 254(c)(1), Catholic Conference argues.[3383] Additionally, Robert J. Lock argues that people without access to wireline technology, such as homeless individuals, could benefit from the provision of wireless technology.[3384]

261. Marketing and Consumer Awareness Information. Benton Foundation argues that support should be provided to ensure that competitively neutral and accurate information about universal service programs is disseminated, particularly to low-income communities.[3385] Similarly, Florida PSC argues that more consumer awareness information about the existence of Lifeline and Link Up should be available.[3386]

[3380] Alliance for Community Media comments at 8-9.

[3381] Community Colleges comments at 7, 9.

[3382] Catholic Conference comments at 4-6.

[3383] Catholic Conference comments at 5-6.

[3384] Robert J. Lock comments at 23, 24.

[3385] Benton Foundation reply comments at 3-5.

[3386] Florida PSC comments at 4.

262. Other Services. Seattle supports the Joint Board's recommendation that universal service support for interexchange and advanced services for Lifeline customers should not be provided at this time.[3387] Urban League, on the other hand, suggests that low-income consumers should have access to advanced services through telecommunications lines with fax and modem capability.[3388]

IX. ISSUES UNIQUE TO INSULAR AREAS

A. Overview

263. The following is a summary of the comments relating to issues unique to insular areas.

264. CNMI largely supports the Joint Board's recommendations, but argues that its recommendation regarding toll-free access should be modified.[3389] CNMI is concerned that under the Joint Board's recommendation callers in the Pacific Island territories will continue to be required to dial 880 to complete many "toll-free" calls, and thus will have to pay for the portion of those calls between CNMI and Hawaii.[3390] CNMI argues that having callers from

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[3387] Seattle comments at 1.

[3388] Urban League comments at 9. *See also* Nat'l Black Caucus comments at 19 (underserved communities should have access to advanced services).

[3389] CNMI comments at 5.

[3390] CNMI comments at 6. According to CNMI, because the vast majority of toll-free access customers in the United States do not purchase toll-free access service that includes the Northern Mariana Islands, Micronesia Telecommunications Corporation (MTC) offers "paid access" to many toll-free (800/888) numbers. Under this arrangement the calling party calls an 880 number and pays a charge that covers the cost of the portion of the call from the Northern Mariana Islands to Hawaii, where the call is linked to the domestic toll-free access service. CNMI comments at 7.

the Pacific Island territories incur a charge for a "toll-free" service while callers from other areas in the United States have true "toll-free" service constitutes unlawful discrimination under section 202,[3391] and violates the principle set forth in section 254(b)(3) that consumers in all regions should have access to telecommunications services that are reasonably comparable, and at rates reasonably comparable, to those in urban areas.[3392]

265. CNMI argues that if the Commission is unwilling to provide support for this service now, it should revisit this issue after August 1, 1997. By that date the Pacific Island territories will have become part of the NANP and will have integrated interexchange rates with the mainland; the Commission can then assess the effect of these changes before determining whether universal service support is necessary.[3393] If the Commission proceeds this way, CNMI requests that the Commission clarify that interexchange carriers serving the Pacific Island territories can continue to use 880 numbers to allow consumers to access toll-free numbers on an interim basis,[3394] despite MTC's assertion that carriers are prohibited from using 880 numbers once CNMI becomes part of NANP.[3395] CNMI states that it is unaware of any legal restriction that would preclude the use of 880 numbers for toll-free calls between

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[3391] 47 U.S.C. § 202.

[3392] 47 U.S.C. § 254(b)(3). CNMI comments at 6, 9-10. *See also* Interior reply comments at 1-2 (requesting the Commission to provide support so that toll-free service is available free of charge to call-originating end users in the Pacific Island territories).

[3393] CNMI comments at 12.

[3394] CNMI comments at 14.

[3395] CNMI cites to a September 20, 1996 press report in the *Marianas Variety* quoting an official from MTC, and MTC's reply comments filed on September 16, 1996 in Policies and Rule Governing Interstate Pay-Per-Call and Other Information Services Pursuant to the Telecommunications Act of 1996 and Policies and Rules Implementing the Telephone Disclosure and Dispute Resolution Act, *Order and Notice of Proposed Rule Making*, 11 FCC Rcd 14738 (1996). *See* CNMI comments at 13-14.

the Pacific Island territories and the mainland United States once the islands become part of NANP.[3396]

266. The Governor of Guam supports the recommendations of the Joint Board and commends the Board for recognizing that insular areas may require special treatment.[3397] The Governor does not disagree with the recommendation to delay the examination of the issue of support for toll-free access to the Pacific Island territories, but suggests that it may be necessary to provide some safeguards in the treatment of toll-free access to the islands.[3398] Specifically, the Governor suggests that toll-free service providers be required to include Guam automatically in "nationwide" service areas.[3399] The Governor also suggests that consumers in the Pacific Island territories be permitted to continue using 880 or 881 during a transition period, while toll-free customers make business decisions about whether to serve the islands.[3400] Regarding access to information services, the Governor notes that the Pacific Island territories are in a unique position because the National Information Infrastructure (NII) "superhighway," funded, at least in part, by the National Science Foundation, has not been

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[3396] CNMI comments at 13-14. The use of 880 and 881 numbers to access toll-free numbers originates with a resolution of the Industry Numbering Committee (INC). *See* Industry Numbering Committee, Issue #34: Allocation Request for 880 NPA Code, resolution date: November 3, 1995. INC Issue #34 resolved that 880 and 881 numbers could be used for inbound foreign-billed 800 type service. It, however, does not allow for the use of 880 or 881 numbers to place calls within the same country in the NANP.

[3397] Governor of Guam comments at 2.

[3398] Governor of Guam comments at 7.

[3399] Governor of Guam comments at 8. Under the Governor's proposal, the toll-free access customers would not be required to subscribe to nationwide service. The service providers would be required to inform toll-free access customers of their option not to include the Pacific Island territories in their service plan. Governor of Guam comments at 8.

[3400] Governor of Guam comments at 8-9. *See also* Interior reply comments at 2.

extended to the islands.[3401] Consequently, according to the Governor, Internet users on Guam not only pay higher rates for usage, but also get inferior services due to bandwidth congestion.[3402]

X. SCHOOLS AND LIBRARIES

A. Overview

267. The following is a summary of the comments relating to the issue of schools and libraries.

B. Telecommunications Carrier Functionalities and Services Eligible for Support

1. Comments

a. Telecommunications Services

268. Most commenters support the Joint Board's recommendation that all commercially available telecommunications services be eligible for universal service support.[3403] USTA, for example, notes that "[t]his is a reasonable approach that provides schools and libraries with maximum flexibility to select the services they need and avoids

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[3401] Governor of Guam comments at 6.

[3402] Governor of Guam comments at 5.

[3403] *See, e.g.*, AFT comments at 1; ALA comments at 2; Ameritech comments at 18; APTS comments at 3-4; Brooklyn Public Library comments at 2; City of Seattle comments at 1; EDLINC comments at 4; New York Public Library comments at 1; USTA comments at 35; Atlanta Board of Education reply comments at 1; Fort Frye School District reply comments at 1; Vanderbilt reply comments at 2.

favoring a particular service or technology."[3404] BPL states that libraries should be entitled to select the services they need because technology advances and market needs should determine what services they choose to use.[3405] New York Public Library asserts that "[t]he Joint Board's plan allows each library and school system to evaluate its priorities, and develop a telecommunications network that would best address those priorities."[3406] While generally supporting the Joint Board's recommendation that all telecommunications services be eligible for support, CTIA asserts that the Commission should go beyond simply allowing schools and libraries to choose wireless services, but "should also preempt any State or local statutes or regulations which exclude, or have the effect of excluding, wireless carriers."[3407] Ameritech states that inclusion of all telecommunications services is acceptable, as long as the fund is capped at a reasonable level.[3408]

269. While generally supporting the Joint Board's recommendations regarding the functionalities and services eligible for support, some commenters ask the Commission to focus support on T-1 or greater bandwidth services or to prefer local service over internal connections or Internet access.[3409] New York DOE, for example, states that advanced telecommunications services should be the "major focus for funding support," with a

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[3404] USTA comments at 35.

[3405] Brooklyn Public Library comments at 2.

[3406] New York Public Library comments at 1. *See also* EDLINC comments at 4 (stating that "[s]chools and libraries are in the best position to determine what services they need and allowing flexibility is the best means of encouraging schools and libraries to determine the level and type of service that best suits their requirements").

[3407] CTIA comments at 9-10 (footnote omitted).

[3408] Ameritech comments at 18 and n.27.

[3409] *See, e.g.,* Apple comments at 4; New York DOE comments at 6; Vermont PSC comments at 15.

minimum standard of T-1 or comparable bandwidth.[3410] Apple comments that, "at this juncture, universal service for a school, [or] library . . . must, at a minimum, be referenced to the equivalent of at least one dedicated T-1 (1.544 Mbps) line, with that capacity controlled by the organization consuming the service."[3411] Apple also notes that, "[i]n the near future, universal service will have to comprise a full range of additional digital services, with bandwidths ranging between at least 45 and 100 Mbps."[3412] Vermont PSB maintains that, because financial resources are constrained, the Commission should establish a priority order to address the telecommunications needs of schools and libraries. That is, telecommunications services, including measured local usage, should be fully funded before subsidies for internal connections or Internet access are considered.[3413]

270. Some commenters, on the other hand, oppose providing a discount for all telecommunications services.[3414] SBC contends that "such an approach would be an abdication of the Commission's responsibility under Section 254(c)(3)."[3415] SBC also states that the Joint Board's recommendation to designate all telecommunications services eligible for discounts is inconsistent with its approach to define specifically the services eligible for

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[3410] New York DOE comments at 6.

[3411] Apple comments at 4.

[3412] Apple comments at 4.

[3413] Vermont PSB comments at 15 (supporting discounts on Local Measured Service usage charges, since they are necessary for dial-up access to information services).

[3414] *See, e.g.,* SBC comments at 43-44, 49-50; New York DPS reply comments at 2-3. *See also* Fred Williamson comments at 5 (stating that universal service should be provided for basic local exchange access service only).

[3415] SBC comments at 43-44.

support under section 254(b)(1).[3416] "Adopting this recommendation of the Joint Board would violate the Act, and would be arbitrary, unreasonable, and otherwise unlawful."[3417] New York DPS contends that "[u]nder [s]ection 254(h)(1)(B), states are free (contrary to the proposal of the Joint Board) to determine `appropriate and necessary' discounts on intrastate services and thus should be able to determine which intrastate services need to be discounted."[3418] New York DPS argues, therefore, that providing discounts for all telecommunications services will limit states' flexibility to design intrastate programs.[3419]

271. Ohio DOE and Ohio PUC encourage the Commission to consider the "equity" issue that applies to states, such as Ohio, that have already spent considerable amounts of money on facilities and technologies.[3420] Ohio DOE, for example, asks that the Commission "make universal service support flexible and fair such that Ohio schools can build upon and enhance technologies already in place with support for recurring costs and technological options which would fill in the gaps and seams in our system."[3421]

b. Internet Access

272. Numerous commenters support the Joint Board's recommendation to include Internet access and electronic mail within the services available to schools and libraries

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[3416] SBC comments at 49-50.

[3417] SBC comments at 50.

[3418] New York DPS reply comments at 2-3.

[3419] New York DPS reply comments at 2.

[3420] Ohio DOE comments at 4; Ohio PUC comments at 16-17.

[3421] Ohio PUC comments at 16.

pursuant to the universal service discount.[3422] EDLINC, for example, states that access to the World Wide Web and electronic mail has become a necessary and basic tool for transmitting and gathering information, and is likely to become even more important. EDLINC notes further that "[i]f schools and libraries are not eligible for discounts on what is fast-becoming a basic element in the communications network, the purpose of [s]ection 254 will not have been met."[3423] AOL states that "[t]he Joint Board's recommendation implements the schools and libraries section of the Telecommunications Act of 1996 as its sponsors intended -- to bring the educational benefits of the Internet within the reach of all Americans."[3424] NCTA asserts that section 254(h)(2) "contemplates the inclusion of `access' as part of universal service without regard to the regulatory treatment of access services."[3425] NCTA argues, therefore, that section 254(h)(2) allows the Commission to include such non-telecommunications services as Internet access "within the ambit of universal service for schools and libraries."[3426] Commercial Internet Exchange agrees and states that analysis should not focus on whether a service is a telecommunications or an information service, but rather "whether Internet access

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[3422] *See, e.g.,* AOL comments at 4-8; Business Software Alliance comments at 1-2; CNMI comments at 36; Commercial Internet Exchange comments at 2-3; EDLINC comments at 4; Great City Schools comments at 2; Illinois State Library comments at 2; Juno Online comments at 4-7; Metricom comments at 2; NetAction comments at 6; North Dakota PSC comments at 2; Oracle comments at 1; People For comments at 10; Seattle comments at 1; Atlanta Board of Education reply comments at 1; Colorado LEHTC reply comments at 2; Fort Frye School District reply comments at 1; GI reply comments at 1-2; NCTA reply comments at 5-7; Small Cable reply comments at 2. *Cf.* RTC comments at 43-44 (supporting the provision of toll-free dial-up Internet access for schools and libraries); Interior reply comments at 3 (same); NTIA reply comments at 29-30 (same).

[3423] EDLINC comments at 4.

[3424] AOL comments at 1-2 (footnote omitted, citing Feb. 1, 1996 statement of Senator Snowe).

[3425] NCTA reply comments at 6.

[3426] NCTA reply comments at 6. *See also* Small Cable reply comments at 2 (stating that "[s]ection 254(h)(2) gives the Commission the authority to promulgate this rule to enhance access to information services").

qualifies as an `advanced service' under [s]ection 254(h)(2)."[3427]

273. Numerous other commenters, including most of the Regional Bell Operating Companies (RBOCs), challenge the Commission's authority to designate non-telecommunications services, such as Internet access, as eligible for universal service support.[3428] These commenters assert that the Act limits universal service support to telecommunications services, and that the various sections of section 254(h) referring to "services" must be read in concert. [3429] For example, BellSouth maintains that section 254(c)(1) defines universal service as "an evolving level of telecommunications services."[3430] AT&T notes that the subsequent reference to "additional services" in section 254(c)(3) relates directly back to the "telecommunications services" referenced in section 254(c)(1).[3431]

274. BellSouth adds that, while section 254(c)(3) allows the Commission to designate additional services as eligible for universal service support, that section "does not

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[3427] Commercial Internet Exchange reply comments at 8.

[3428] *See, e.g.,* ALLTEL comments at 5; Ameritech comments at 18-19; AT&T comments at 20; BellSouth comments at 22-25; Citizens Utilities comments at 11-13; GTE comments at 89-95; PacTel comments at 37-41; SBC comments at 43; USTA comments at 35; ACTA reply comments at 4; APC reply comments at 6; GCI reply comments at 13; Sprint reply comments at 2-3. *Cf.* PCIA reply comments at 14 (stating that determination of whether non-telecommunications services such as Internet access should be eligible for universal service support should be deferred until the attendant legal issues are resolved).

[3429] *See, e.g.,* ALLTEL comments at 5; Ameritech comments at 18-19; AT&T comments at 20; BellSouth comments at 22-25; Citizens Utilities comments at 11-13; GTE comments at 89-95; PacTel comments at 37-41; SBC comments at 43-44; USTA comments at 35; GCI reply comments at 13.

[3430] BellSouth comments at 22 (*citing* 47 U.S.C. § 254(c)(1)) (emphasis omitted).

[3431] AT&T comments at 19. *See also* SBC comments at 44 (noting that the reference to "additional services" in section 254(c)(3) "clearly means `additional telecommunications services,' consistent with the use of `services' throughout [s]ection 254(c)").

provide that such additional universal services may include non-telecommunications services."[3432] SBC states further that any doubt about the meaning of "additional services" contained in section 254(c)(3) is removed when referring to section 254(h)(1)(B), "which discusses reimbursement for telecommunications carriers providing `any of its services which are within the definition of universal services under [[s]ection 254(c)(3)].'"[3433] SBC asserts that inclusion of information services such as Internet access is not addressed anywhere within sections 254(c)(1), (c)(3), or (h)(1)(B).[3434] PacTel states that only "[a] school's or library's purchase of telecommunications service from a telecommunications carrier to connect the school's or library's equipment to the telecommunications network for the purpose of reaching the Internet service provider could be made at discounted prices that are directly supported by the universal service fund."[3435] PacTel adds that if a telecommunications carrier is also an Internet service provider and packages the telecommunications and information services together, only the telecommunications portion of the package would be eligible for universal service support.[3436]

275. Several commenters assert that relying on section 254(h)(2)(A) to support discounts for Internet access does not provide a sound basis for the Joint Board's

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[3432] BellSouth comments at 23 (noting that "[t]o interpret [s]ection 254(c)(3) as providing authority for the Commission to designate additional `services' for USF support, regardless of whether they are `telecommunications services,' would mean that the Commission could designate any `services' whatsoever for the purposes of subsection (h), whether or not even remotely related to telecommunications services, as long as, of course, provided for `educational purposes'").

[3433] SBC comments at 44.

[3434] SBC comments at 44.

[3435] PacTel reply comments at 22.

[3436] PacTel reply comments at 22.

recommendation.[3437] BellSouth, for example, maintains that section 254(h)(2), which requires the Commission to "enhance access" to advanced telecommunications and information services, "cannot override the explicit provisions of Section 254(c)(1) limiting universal services to such telecommunications services as the Commission shall designate."[3438] Ameritech states that the reference in section 254(h)(2)(A) to enhancing access to "information services," indicates that "what is meant is not that the information services themselves are included in the concept of universal service but rather `access to' those services -- i.e., the communications services that connect the educational institution to the information services," is what the statute contemplated.[3439] Citizen Utilities notes that the Joint Board distinguished between access and services in other contexts, including its recommendation to provide universal service support for access to interexchange service and access to directory assistance services, but not to provide support for those underlying services. Citizens Utilities asserts that "[t]he same logic suggests that the service provided by a telecommunications carrier in access to the Internet can be severed from the service that an Internet access provider extends over the telecommunications carrier's transmission facility. It is only the latter facility that should, under [s]ection 254(h), be the subject of funded discounts." [3440] SBC notes that section 254(h)(2)(A) "does not speak of discounts, funds for

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[3437] *See, e.g.,* Ameritech comments at 18-19; BellSouth comments at 23; Citizens Utilities comments at 11-12; PacTel comments at 39-41; SBC comments at 44-45;

[3438] BellSouth comments at 23 (emphasis omitted).

[3439] Ameritech comments at 18-19. *See also* Citizens Utilities comments at 11 (stating that "it is clear that `access' is meant to be the means of physical connection, via a telecommunications service, between schools and libraries and advanced telecommunications services and information services"); GTE comments at 93 (asserting that "[t]elecommunications services are to be provided; however, only access to, not the advanced services themselves, is required here"); SBC comments at 44 (stating that "[t]he Commission is to adopt competitively neutral rules `to enhance . . . access,' not to include and support information services or non-telecommunications service provided by non-carriers").

[3440] Citizens Utilities comments at 13-14.

discount reimbursement or carrier contributions; it speaks only of `competitively-neutral rules.'"[3441]

276. Commenters opposing universal service support for non-telecommunications services raise two final issues. First, BellSouth and GTE argue that supporting Internet access is bad public policy. BellSouth asserts that local community initiatives are available to fund such services for schools and libraries, and "[c]learly the Act did not intend to usurp local community involvement and responsibility for its schools."[3442] GTE maintains that providing such support may interfere with the competitive markets currently providing non-telecommunications services.[3443] Second, Netscape contends that the Recommended Decision failed to "deal with the jurisdictional issues involved in Internet access."[3444] Since the telecommunications services underlying Internet access are arguably intrastate, Netscape maintains they are not within the Commission's authority. Netscape recommends that the Commission classify Internet access as an interstate service, since most such communications cross state lines. "Without this sort of preemption of state authority, the Commission's Internet-related decisions under [s]ection 254(h) may draw unnecessary legal challenge, compromising the goal, which Netscape shares, of making Internet access available universally to U.S. K-12 schools and libraries."[3445]

277. Numerous commenters support the Joint Board's recommendation permitting non-telecommunications carriers that provide eligible services to schools and libraries to draw

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[3441] SBC comments at 44.

[3442] BellSouth comments at 27.

[3443] GTE comments at 93-94.

[3444] Netscape comments at 6 n.21.

[3445] Netscape comments at 7 n.21.

from universal service support mechanisms.[3446] TCI, for example, asserts that such a result is within the Commission's authority under section 254(h)(2)(A).[3447] WinStar maintains that the Commission should clarify that the eligibility requirements of section 214(e) do not apply to providers furnishing supported services to schools and libraries."[3448] Commercial Internet Exchange asserts that section 254(e) requires that only providers of core telecommunications services under section 254(c)(1) can recover some of the costs of providing those services from universal service support mechanisms. Because universal service support mechanisms are intended to provide support for the broader category of section 254(h)(2) advanced services, however, Commercial Internet Exchange contends that recovery from universal service support mechanisms is not limited to carriers eligible under section 214(e).[3449]

278. Commercial Internet Exchange also states that allowing Internet service providers to participate in the competitive bidding process and to receive universal service support for providing services to schools and libraries is mandated by the competitive

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[3446] *See, e.g.,* Commercial Internet Exchange comments at 2-3; Cox comments at 10-11; Metricom comments at 2; NetAction comments at 7; TCI comments at 10; WinStar comments at 2-3; Business Software Alliance reply comments at 7; EDLINC reply comments at 3-5, 20; GI reply comments at 4; NCTA reply comments at 5-7; Small Cable reply comments at 3.

[3447] TCI comments at 9. *See also* Cox comments at 10 (stating that "[t]he Recommended Decision takes an important initial step by determining that [s]ection 254(h) does not limit eligibility for school, [and] library . . . subsidies to telecommunications carriers") (footnote omitted).

[3448] WinStar comments at 2-3.

[3449] Commercial Internet Exchange reply comments at 9. *See also* Business Software Alliance reply comments at 7 (stating that the section 254(e) restriction applies only to telecommunications carriers providing core telecommunications services under the general universal service program and "has no applicability to non-telecommunications products pursuant to the specific program that Congress established for schools and libraries").

neutrality requirement contained in section 254(h)(2).[3450] Including Internet service providers in the discount program, according to Commercial Internet Exchange, will also lead to more competitive pre-discount prices for services which will, in turn, "reduce the reimbursement burden on the universal service fund for each school and library participating in the program."[3451] NetAction, while noting that allowing non-telecommunications carriers to draw from universal service support mechanisms without requiring them to contribute is "inherently unstable, and open to possible appellate challenge," states further that "[t]he Joint Board properly interpreted the Act to require competitively neutral rules to advance universal service policies, rather than limit support to providers which must meet the narrow definition of `telecommunications provider.'"[3452]

279. Cox submits that requiring only telecommunications carriers to contribute to universal service support mechanisms but allowing non-telecommunications providers to receive universal service support from those same mechanisms is neither inconsistent nor unfair.[3453] Telecommunications carriers will contribute to universal service support mechanisms based on telecommunications revenues, not on revenues from non-telecommunications services such as Internet access.[3454] EDLINC notes that because telecommunications carriers will not be competing with non-telecommunications carriers to

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[3450] Commercial Internet Exchange comments at 4. *See also* NCTA reply comments at 7 (stating that "[s]ection 254(h)(2)'s mandate of competitive neutrality ensures that *any* entity can compete to provide access to schools and libraries regardless of whether it is a telecommunications carrier").

[3451] Commercial Internet Exchange comments at 4-5. *See also* Small Cable reply comments at 5 (stating that providing universal service support to non-telecommunications carriers will foster competition in the provision of services to schools and libraries).

[3452] NetAction comments at 7.

[3453] Cox comments at 10-11.

[3454] Cox comments at 10-11.

provide telecommunications services, the fact that only telecommunications carriers must contribute to universal service support mechanisms based on their provision of telecommunications services does not put them at a competitive disadvantage with respect to non-telecommunications carriers, such as Internet service providers.[3455] To the contrary, EDLINC states, the provision of universal service support for non-telecommunications services such as Internet access will be available to both telecommunications and non-telecommunications carriers. EDLINC contends that because neither entity will be required to contribute to universal service support mechanisms based on the provision of these non-telecommunications services and because both entities will be eligible to receive reimbursement from universal service support mechanisms for their provision of these services, neither party will be at a competitive disadvantage.[3456]

280. Numerous other commenters, again including most of the BOCs, challenge the Commission's authority to permit non-telecommunications carriers to draw from universal service support mechanisms.[3457] NYNEX, for example, asserts that since providers of Internet access are "not `telecommunications carriers' that provide universal service through their own facilities" pursuant to section 214(e), nor are they "`interstate telecommunications providers'

[3455] EDLINC reply comments at 4-5.

[3456] EDLINC reply comments at 4-5. *See also* Cox comments at 10-11 (stating that the "provision of advanced services, by either a telecommunications carrier or by a non-carrier, will not create any obligation to make universal service payments, leaving both carriers and non-carriers on an equal footing"); GI reply comments at 4 (stating that "payments for the fund for the provision of advanced service by either telecommunications carriers or non-carriers *would have no bearing on assessments for contributions to the fund").*

[3457] *See, e.g.,* Ameritech comments at 18-19; AT&T comments at 20; Bell Atlantic comments at 21; BellSouth comments at 25-28; Citizens Utilities comments at 13-14; MCI comments at 18; NYNEX comments at 40; PacTel comments at 39; SBC comments at 46; BANX reply comments at 19.

under [s]ection 254(d)," they are not eligible to receive universal service support.[3458] PacTel agrees and quotes section 254(e), which states that "only an eligible telecommunications carrier designated under [s]ection 214(e) shall be eligible to receive specific Federal universal service support."[3459] SBC contends that providing universal service support for non-telecommunications carriers raises such administrative problems as requiring the universal service administrator to oversee a large number of service providers and to monitor those non-regulated providers for potential fraud and abuse.[3460]

281. NYNEX notes that allowing non-telecommunications providers, such as Internet service providers, to draw from universal service support mechanisms without requiring them to contribute is also inconsistent with the concept of competitive neutrality.[3461] PacTel asserts that "[c]ompetitively neutral rules require that the category of service providers and services that receive support be the same as the category of service providers and services that provide support. Otherwise, one type of provider and service would be favored over another."[3462] Netscape states that "[p]roper universal service policy for K-12 schools and libraries compels that all communications providers - regardless of regulatory classification - both contribute to

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[3458] NYNEX comments at 40. *See also* Bell Atlantic comments at 21 n.81 (*citing* 47 U.S.C. § 254(e)).

[3459] PacTel comments at 38 (*quoting* 47 U.S.C. § 254(e)). *See also* SBC comments at 43 (stating that "[t]he Commission should reject universal service funding for internet access . . . as [s]ection 254 only allows support for `telecommunications services' and funding to be received by either eligible carriers (under [s]ection 254(e)) or carriers (under [s]ection 254(h))".

[3460] SBC comments at 49.

[3461] NYNEX comments at 40. *See also* AT&T comments at 20 (stating that "[s]ection 254(h)(2) does not otherwise expand the Commission's statutory license to apply the USF -- which is funded solely by telecommunications carriers -- to subsidize services other than telecommunications services")

[3462] PacTel comments at 39. *See also* SBC comments at 46 (asserting that "competitive neutrality is violated in that non-carriers can receive support but are not required to contribute to the fund").

and receive support from a `universal' universal service support system."[3463] Netscape states further that a situation in which competitors, such as telecommunications carriers and Internet service providers, have differing universal service payment obligations "is precarious, at best, and open to substantial legal challenge, at worst."[3464]

282. Some commenters further assert that allowing non-telecommunications carriers to draw from universal service support mechanisms without also requiring them to contribute to those mechanisms would violate the United States Constitution.[3465] SBC, for example, characterizes such a contribution mechanism as a tax, since interstate telecommunications carriers would be contributing to a fund that would be used to compensate non-telecommunications carriers "to achieve educational goals unrelated to the regulation of telecommunications."[3466] Because, under the Origination Clause of the United States Constitution,[3467] all federal taxes must originate in the United States House of Representatives, SBC maintains that telecommunications carriers' contributions to universal service support

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[3463] Netscape comments at 7 (footnote omitted).

[3464] Netscape comments at 7.

[3465] *See, e.g.*, ALLTEL comments at 5; PacTel comments at 43; SBC comments at 46-49.

[3466] SBC comments at 46-47. *See also* ALLTEL comments at 5 (stating that allowing non-telecommunications carriers to collect from universal service support mechanisms "removes the taxing authority from the legislative branch"); Georgia PSC reply comments at 25-26 (concurring with SBC's analysis and stating that universal service support for schools and libraries "can be made available through other, more appropriate methods than redefining telecommunications services and imposing what amounts to an additional tax in the absence of an express Congressional mandate"); PacTel reply comments at 18-19 (concurring with SBC's analysis and stating that "[t]o turn the Act into a tax measure -- by requiring one set of providers to pay into the fund and allowing an altogether different set of entities to take from it, as well as using the monies collected to support goods and services not regulated by the Commission -- thus is contrary to the will of Congress and must be rejected").

[3467] U.S. Const., Art. I, § 7, cl. 1.

mechanisms would amount to an unconstitutional tax, and that all provisions of section 254 addressing schools and libraries would, therefore, comprise unconstitutional delegations of authority.[3468] SBC urges the Commission instead to interpret section 254(c)(3) and 254(h) narrowly to avoid constitutional problems.[3469]

283. PacTel notes that permitting non-telecommunications carriers to draw from universal service support mechanisms without requiring them to contribute "would create a new subsidy for Internet access providers without addressing the implicit subsidy that LECs provide to them through the Commission's Enhanced service providers ("ESPs") exemption from access charges."[3470] PacTel contends further that such an arrangement would violate sections 201, 202, and 254 of the Communications Act, and would also be "an unauthorized taking of LEC property in violation of the Act and of the Fifth and Fourteenth Amendments to the U.S. Constitution."[3471]

284. Some commenters assert that, if the Commission adopts the Joint Board's recommendation to permit non-telecommunications carriers to draw from universal service support mechanisms, such providers must be reclassified as telecommunications providers.[3472] Citizens Utilities states that such a reclassification would impose two new obligations upon such carriers: "(1) they would be required to contribute to universal service funding under [s]ection 254(d); and (2) they would be responsible for the payment of access charges, where their services are interexchange in nature, and reciprocal compensation, where their services

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[3468] SBC comments at 47.

[3469] SBC comments at 48.

[3470] PacTel comments at 41.

[3471] PacTel comments at 43.

[3472] *See* BellSouth comments at 26; Citizens Utilities comments at 14.

are local exchange in nature."[3473]

285. Some commenters address the Joint Board's recommendation that schools and libraries be permitted to secure discounts on Internet access bundled with a minimal amount of content, but only if that bundled offering represents the most cost-effective way for the school or library to gain access to the Internet.[3474] AOL recommends that the Commission eliminate any requirement that Internet access may be bundled with only minimal content in order to qualify for universal service discounts.[3475] AOL asserts that such a requirement is inconsistent with the legislative intent,[3476] impermissibly supports one model for providing information services over another,[3477] and needlessly restricts the range of service options available to schools and libraries.[3478] In addition, AOL recommends that the Commission replace the minimal content requirement with a per-subscription cap on fees for access to the Internet, regardless of whether that access is bundled with other content.[3479] A per-subscription cap, according to AOL, will provide basic conduit access for schools and libraries, will give schools and libraries maximum flexibility in selecting Internet Service

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[3473] Citizens Utilities comments at 14.

[3474] *See, e.g.*, AOL comments at 2-6; Netscape comments at 6.

[3475] AOL comments at 2-6.

[3476] AOL comments at 3-4.

[3477] AOL comments at 4-5. *See also* EDLINC reply comments at 4 (stating that competitive neutrality requires that ISPs offering some bundled content as part of their basic Internet access be eligible for universal service support; to find otherwise would favor ISPs that offer strictly Internet access).

[3478] AOL comments at 6.

[3479] AOL comments at 6.

Providers, and will be easy to administer.[3480] AOL states that the cap should be based on the average charge for Internet access, computed on a nationwide basis.[3481] Using several different methods of calculation, AOL estimates a current average rate of $19.95 per month.[3482] Netscape states that a per-subscription cap "is a competitively neutral approach . . . far preferable to the creation of a new, factually incorrect and highly transitory system for classification of Internet providers as `content' and so-called `conduit' services."[3483] CNMI, however, opposes a per-subscription cap because it may not be adequate to support Internet access for schools and libraries in rural and insular areas and because such a cap may not be consistent with section 254's requirement that schools and libraries be provided with affordable access to services eligible for universal service support.[3484]

286. Netscape suggests a modification to the minimal content requirement recommended by the Joint Board. Netscape contends that the conduit/content distinction is ambiguous and has no meaningful application in the Internet environment to the functionalities and services available today from Internet service providers and online service providers.[3485] As an alternative, Netscape recommends that Internet access (i.e., the transport function) be differentiated from Internet services (i.e., the enhanced communications function), and that only Internet access be eligible for universal service discounts. "Under this approach, any provider offering dedicated transport facilities (T-1, 56 Kbps, frame relay, etc.) linking a user to the Internet would be considered, to that extent, to be providing

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[3480] AOL reply comments at 8-9.

[3481] AOL comments at 7.

[3482] AOL reply comments at 7-8.

[3483] Netscape reply comments at 6.

[3484] CNMI reply comments at 8-9.

[3485] Netscape comments at 6.

`telecommunications services' subject to discount under [s]ection 254(h)."[3486] Netscape also states that competitive neutrality precludes extending discounts only to dedicated Internet access, since many Internet service providers and Online service providers offer primarily dial-up access. Netscape does, however, support greater discounts for high-bandwidth Internet access to encourage schools and libraries to adopt broadband network solutions.[3487]

c. Intra-School and Intra-Library Connections

287. Numerous commenters support the inclusion of internal connections within the services eligible for the schools and libraries discount program.[3488] EDLINC, for example, agrees with the Joint Board that installation and maintenance of internal connections is a service under section 254(h)(1)(B).[3489] EDLINC states further that "[w]ithout internal connections, services cannot be delivered to classrooms, as contemplated by the legislation, making it impossible to fully integrate telecommunications into the curriculum."[3490] United States Senator Charles S. Robb commends the Joint Board for recommending that internal

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[3486] Netscape comments at 6.

[3487] Netscape reply comments at 5.

[3488] *See, e.g.*, AFT comments at 1; CNMI comments at 36; CTIA comments at 10; EDLINC comments at 3; Great City Schools comments at 2; ITI comments at 7; MassLibrary comments at 1; Mississippi comments at 4; NetAction comments at 6; New Jersey Advocate comments at 8-9; Oracle comments at 14-18; Owen J. Roberts School District comments at 1; People For comments at 10; TCI comments at 8-9; Charles S. Robb reply comments at 2; CWA reply comments at 3; GI reply comments at 2; Ohio PUC reply comments at 13-15; Vanderbilt reply comments at 3-4.

[3489] EDLINC comments at 3-4.

[3490] EDLINC comments at 3-4. *See also* Ohio PUC reply comments at 13 (stating that "the Joint Explanatory Statement made several reference to providing access to `classrooms' and not just school buildings"); Vanderbilt reply comments at 3 (*quoting* Benton Foundation statement that "it is the clear intent of Congress to connect classrooms, not just to reach the school house door").

connections be eligible for universal service support and "encourage[s] the FCC to adopt this recommendation in its final rules in keeping with the spirit of the law to not only provide internet wiring to the school door, but to enable our schools to afford the internal connections for the classroom where the children need them."[3491] New Jersey Advocate maintains that "[t]he discounts for the provision of Internet access and telecommunications services [will] be meaningless if schools and libraries cannot afford the cost of wiring the facilities for access."[3492]

288. EDLINC also asserts that the inclusion of internal connections among the services eligible for universal support is competitively neutral, since wireless technologies are not favored over wireline technologies.[3493] CNMI maintains that the inclusion of internal connections is consistent with "section 254(h)(2)(A)'s far-reaching mandate" that the Commission establish rules that provide access to advanced telecommunications and information services for schools and libraries.[3494] Great City Schools contends that there is "no debate over legal authority" to include internal connections within the class of services eligible for universal service support.[3495]

289. ITI asserts that if the Commission decides to support internal connections, the principle of competitive neutrality requires that both telecommunications carriers and non-

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[3491] Charles S. Robb reply comments at 2.

[3492] New Jersey Advocate comments at 8.

[3493] EDLINC comments at 4.

[3494] CNMI comments at 36. *See also* AFT comments at 1 (including internal connections and Internet access among the services eligible for universal service discounts is "crucial to delivering education via advanced telecommunications to the broadest numbers of K-12 students and adult learners").

[3495] Great City Schools comments at 2.

telecommunications carriers be eligible for universal service support.[3496] In addition, ITI asserts further that section 254(h)(2) provides the Commission with authority that is "separate and independent" from the authority granted through section 254(h)(1). ITI states that, "[b]ecause it is not so limited, [s]ection 254(h)(2) authorizes the Commission to establish a funding mechanism for reimbursement of both carriers and non-carriers who provide the advanced services identified by the Board."[3497] CTIA contends that the Commission should adopt a "flexible approach" that allows schools and libraries to use any type of internal connections, including wireless LANs.[3498] CTIA maintains that such an approach will result in greater competition and lower prices, and will ensure that the limited universal service funds "are spent in the most efficient manner possible."[3499]

290. Oracle seeks clarification on two points regarding internal connections. First, Oracle asks that the Commission include file server software within the definition of internal connections eligible for universal service support. Oracle defines file server software as the software "used to configure, operate and manage computer network communications."[3500] Noting that network file servers are useless without the necessary software and that most file server hardware is sold bundled with software, Oracle argues that "the Commission should not attempt to disaggregate network file server hardware and software."[3501] Second, Oracle states that, to ensure both competitive and technological neutrality, the Commission should avoid

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[3496] ITI comments at 7 (assuming for the sake of argument that the Commission has the authority to include internal connections within the scope of eligible services).

[3497] ITI comments at 5.

[3498] CTIA comments at 10.

[3499] CTIA comments at 11.

[3500] Oracle comments at 16.

[3501] Oracle comments at 15-16.

"any limitation on the size and type of network file servers, routers and similar network technologies K-12 schools and libraries are permitted to deploy using universal service support funds."[3502] Oracle maintains that the marketplace, rather than Commission regulations, should determine the network architecture that schools and libraries select.[3503]

291. Numerous commenters argue that the Commission should decline to adopt the Joint Board's recommendation to include internal connections within the services eligible for universal service support.[3504] Some of these commenters contend that the Commission has no statutory authority to provide support for internal connections.[3505] For example, AT&T states that internal connections are not telecommunications services under section 254(c)(3), and that section 254(h)(2)(A)'s directive to adopt rules to enhance "access" to advanced telecommunications and information services does not expand the Commission's authority to provide universal service support to non-telecommunications services such as internal

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[3502] Oracle comments at 17.

[3503] Oracle comments at 17-18.

[3504] *See, e.g.*, AirTouch comments at 18-19; ALTS comments at 17-18; Ameritech comments at 18-19; AT&T comments at 18; Bell Atlantic comments at 21; BellSouth comments at 25-28; California Dept. of Consumer Affairs comments at 25; Cincinnati Bell comments at 13-14; Frontier comments at 4, 13; GTE comments at 89-91; MCI comments at 18; MFS comments at 32; New York DOE comments at 7; NYNEX comments at 40; PacTel comments at 44; SBC comments at 46; SNET comments at 7; Sprint comments at 11-13; TURN comments at 9; USTA comments at 35-36; WorldCom comments at 28; Georgia PSC reply comments at 22-25; Motorola reply comments at 9, 13; PageMart reply comments at 3-4; PCIA reply comments at 6; UTC reply comments at 6-7.

[3505] *See, e.g.*, AirTouch comments at 18-19; ALTS comments at 17-18; Ameritech comments at 18-19; AT&T comments at 18; California Dept. of Consumer Affairs comments at 25; Cincinnati Bell comments at 13-14; Frontier comments at 4, 13; Sprint comments at 11-13; WorldCom comments at 28; GTE reply comments at 64; PCIA reply comments at 6.

connections.[3506] California Dept. of Consumer Affairs maintains that "it would be wrong for the Commission to interpret a reference to `access' as Congress' grant of jurisdiction over inside wiring providers."[3507] Ameritech adds that "the `access to . . . information services' referred to in [section] 254(h)(2)(A) is most logically interpreted as applying to the network transmission components necessary for access to information services."[3508]

292. Ameritech also states that because internal connections are not telecommunications services, but rather customer premises equipment (CPE), they are clearly not eligible for universal service support.[3509] AirTouch adds that the Recommended Decision does not provide a "workable standard" for differentiating among file servers eligible for universal service support as internal connections and personal computers ineligible for support, and concludes that funding internal connections would both violate section 254 and

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[3506] AT&T comments at 20.

[3507] California Dept. of Consumer Affairs comments at 29.

[3508] Ameritech reply comments at 4. *See also* BellSouth reply comments at 12 (stating that section 254(h)(2) provides only for "access" to advanced telecommunications and information services and does not contemplate inclusion of the services themselves among the services eligible for universal service support); Georgia PUC reply comments at 24-25 (stating that section 254(h)(2) addresses only competitively neutral rules to enhance "access" to advanced telecommunications and information services).

[3509] Ameritech comments at 19. *See also* AirTouch comments at 21 (stating that the Recommended Decision's "reliance on the term `access' to justify supporting internal connections is a `slippery slope,' providing no fundamental standard to judge what equipment or services should or should not be supported" (footnote omitted, citing Commissioner Chong's statement concurring with the Joint Board's Recommended Decision); Cincinnati Bell comments at 13-14 (stating that "[a]s Commissioner Chong and Commissioner Schoenfelder observe, as well as Representative Jack Fields, inside wire is plant and equipment, not a telecommunications service and as such is beyond the Congressional mandate of providing discounted *service* to schools and libraries") (footnote omitted).

be "administratively unworkable."[3510] WorldCom asserts that "[h]owever laudable the Joint Board's goals may be in this area, the Commission appears to lack the statutory authority to require universal service funding of inside wiring that constitutes unregulated plant or equipment, not a telecommunications service."[3511] UTC adds that "[w]hile the Joint Board's characterization of internal connections as a type of service may be accurate, this is not dispositive" because services eligible for universal service support must be telecommunications services.[3512] GTE maintains that providing universal service support for internal connections is inconsistent with the Commission's previous classification of inside wiring and CPE as non-common carrier services under Title II that are not subject to Commission regulation.[3513]

293. Numerous commenters contend that permitting non-telecommunications carriers that install and maintain internal connections to draw from universal service support mechanisms violates section 254.[3514] Commenters provide essentially the same arguments that they make regarding the inclusion of Internet access among the services eligible for universal service support.[3515] NYNEX, for example, states that providers of internal connections are neither eligible telecommunications providers under section 214(e), nor are they interstate

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[3510] AirTouch reply comments at 30.

[3511] WorldCom comments at 28.

[3512] UTC reply comments at 6-7.

[3513] GTE comments at 89-91 and n.140 (*citing* prior Commission decisions). *See also* UTC reply comments at 7 (stating that "[t]he Commission has explicitly ruled that the installation and maintenance of inside wiring are not common carrier communications services").

[3514] *See, e.g.,* Ameritech comments at 18; AT&T comments at 20; Bell Atlantic comments at 21; BellSouth comments at 25-28; MCI comments at 18; NYNEX comments at 40; PacTel comments at 44; SBC comments at 46; BANX reply comments at 19.

[3515] *See supra* paras. 24 - 26.

telecommunications providers under section 254(d).[3516] BellSouth contends that providers of internal connections can collect universal service support only if the Commission reclassifies the providers as telecommunications carriers and internal connections as telecommunications services, "thus ignoring its historical treatment of such services and connections as well as these statutory definitions."[3517] Bell Atlantic maintains that the Commission must limit the entities that can be reimbursed for providing internal connections to telecommunications carriers only.[3518]

294. Some commenters maintain that including internal connections within the services eligible for universal service support would either greatly increase the magnitude of universal service support mechanisms or would rapidly deplete the available funds.[3519] TURN contends that the size of universal service support mechanisms would have to increase by billions of dollars if internal connections were eligible for support.[3520] TURN also maintains

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[3516] NYNEX comments at 40. *See also* Bell Atlantic comments at 21 n.81; PacTel comments at 38; SBC comments at 43.

[3517] BellSouth comments at 26.

[3518] Bell Atlantic comments at 21. *See also* MCI comments at 18 (asserting that "non-telecommunications carriers are not eligible under the Act for reimbursement").

[3519] *See, e.g.*, AT&T comments at 18; Citizens Utilities comments at 15; GTE comments at 96; MFS comments at 32; New York DOE comments at 7; TURN comments at 10; USTA comments at 35-36; WorldCom comments at 28; PCIA reply comments at 12.

[3520] TURN comments at 10. *See also* Citizens Utilities comments at 15 (stating that "support of *any* internal connections will load significant costs upon the universal service system that are not contemplated under the statute"); GTE comments at 96 (stating that "the potentially immense financial ramifications of including inside wiring in the educational support fund cut against the Board's decision"); USTA comments at 35 (citing Commissioner Chong's concurring statement for the premise that "inclusion of internal connections will cause the fund to balloon to a level much higher than may be fiscally prudent, at the expense of all consumers of telecommunications services").

that the impact would be felt by telecommunications consumers because carriers would have to raise rates. TURN further avers that "[t]his would place the Commission's mandate to improve affordability and advance universal service in jeopardy."[3521] New York DOE notes that "[w]hile the intent of the Joint Board recommendations for supporting discounts for inside wiring is laudable, it may not be practical because costs for this purpose could quickly deplete a capped national fund."[3522] New York DOE also maintains that some schools may choose very sophisticated configurations for internal connections, placing a disproportionate burden on the fund and taking support away from the most needy schools and libraries.[3523] PageMart adds that providing universal service support for internal connections would "not [be] economically reasonable as required by [s]ection 254(h)(2)(A)."[3524]

295. Some commenters assert that including internal connections among the services eligible for universal service support would not serve the public interest because, for example, it would seriously disrupt the competitive market that now exists for internal connections.[3525] AirTouch, for example, notes that because the internal connections market is nonregulated and highly competitive, providing universal service support for internal connections "is likely to place significant burdens upon other telecommunications consumers: both the direct burdens of the taxes used to fund such subsidies and in indirect efficiency costs that will be triggered

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[3521] TURN comments at 10. *See also* Sprint comments at 13-14 (stating that "[t]he Commission should be keenly aware that there is no such thing as free money, and that the costs of the proposed multi-billion dollar subsidy will ultimately be borne by consumers of telecommunications services generally").

[3522] New York DOE comments at 6.

[3523] New York DOE comments at 7.

[3524] PageMart reply comments at 4.

[3525] *See, e.g.,* AirTouch comments at 20; Cincinnati Bell comments at 14; GTE comments at 93-94.

by the collection of such subsidies."[3526] Cincinnati Bell contends that "since inside wire has been deregulated for some time and the market is clearly competitive, schools have opportunities to solicit bids from many different providers and to negotiate for discounts to meet their needs. In short, there is no need for subsidies for inside wire."[3527] GTE maintains that because many internal connections providers would not meet the Act's definition of telecommunications carrier, their service would not be eligible for universal service support. The result would be that eligible telecommunications carriers would have a competitive advantage over these other, full-priced competitors in the internal connections market.[3528] AT&T, on the other hand, asserts that non-telecommunications carriers providing internal connections would have a competitive advantage over telecommunications carriers providing internal connections because only the telecommunications carriers will contribute to universal service support mechanisms and large portions of the funding will likely flow to the non-telecommunications carriers. AT&T contends that such a result would not be competitively neutral.[3529]

[3526] AirTouch comments at 20 (footnote omitted).

[3527] Cincinnati Bell comments at 14.

[3528] GTE comments at 94.

[3529] AT&T comments at 20. *See also* Ameritech comments at 18 (stating that "[t]he principle of competitive neutrality would be violated if providers who are not required to contribute toward the preservation of universal service were permitted to receive disbursements from the fund"); NYNEX comments at 40 (asserting that "it is not clear how allowing a provider to receive universal service support, without requiring it to contribute to the fund as will telecommunications carriers that provide inside wiring . . . is consistent with the concept of competitive neutrality"); PacTel comments at 46-47 (stating that "[r]ather than ensuring competitive neutrality, the Board has established a system in which telecommunications carriers must pay into the fund to subsidize non-telecommunications carriers whose inside wiring and CPE will be provided to schools and libraries"); Georgia PSC reply comments at 23 (stating that "just one of the resulting problems will be a violation of the principle of `competitive neutrality," because non-telecommunications carriers would be eligible to receive fund subsidies even though they would not be obliged to participate in contributing to the fund").

296. Some commenters assert that providing universal service support for internal connections violates the principle of technological neutrality.[3530] GTE, for example, asserts that the inclusion of internal connections within the services eligible for universal service support violates this principle because it "target[s] a subsidy (inside wiring support) to a characteristic (wiring) unique to a particular technology (wireline services)."[3531] Motorola agrees with GTE's analysis and adds that "the inclusion of internal connections in the universal service support program ignores the existence of cost-effective wireless alternatives."[3532]

297. Finally, some commenters maintain that, if universal service support is provided for internal connections, the owner of those internal connections should not be permitted to restrict access to them.[3533] If one provider receives universal service support funds to supply internal connections to a school or library, WinStar asserts that that provider may not then restrict access to the internal connections if the school or library chooses another provider to supply its telecommunications services or Internet access. WinStar maintains that the Commission should condition the receipt of universal service funds on the requirement that the installer or owner not restrict access.[3534] Similarly, if the internal connections are already in place, WinStar contends that the owner should not be permitted to

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[3530] *See, e.g.,* GTE comments at 95; Motorola reply comments at 15-16.

[3531] GTE comments at 95.

[3532] Motorola reply comments at 15.

[3533] *See, e.g.,* MFS comments at 32-33; WinStar comments at 7-9; WorldCom comments at 29.

[3534] WinStar comments at 8. *See also* MFS comments at 32-33 (asserting that the Recommended Decision should be clarified to indicate that internal connections subsidized by universal service funds must be made available to any competing service providers a school or library may select); WorldCom comments at 29 (stating that "[t]he ILECs cannot be subsidized by other carriers to provide physical plant, and then deny those same carriers access to that wiring").

prevent the school or library from choosing another provider for its telecommunications services or Internet access. If a telephone carrier owns the internal connections and currently has a tariff for those connections, it should be compensated for the use of those connections at the schools' and libraries' discounted rate and be permitted to recover the rest of the tariffed rate from the universal service support mechanism.[3535] If the owner does not currently charge for the use of the internal connections, WinStar asserts that it should not be permitted to begin charging if the school or library selects an alternate service provider.[3536]

C. Discount Methodology

1. Comments

a. Pre-Discount Price

298. Competitive Environment. Numerous commenters support the Joint Board's recommendation that schools and libraries be required to participate in a competitive bidding process in which requests for proposals (RFPs) will be posted on a website.[3537] Ameritech, for example, contends that the competitive bidding process "should encourage widespread participation and aggregation of demand, thus facilitating economic efficiency and reducing administrative costs."[3538] BellSouth asserts that competitive bidding and posting RFPs on a website "will ensure that many providers will have the opportunity to submit bids, and, thus,

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[3535] WinStar comments at 8. *See also* MFS comments at 33 (stating that "the owner of the inside wire should not be allowed to prohibit competitors from using the inside wiring to provide subsidized services, and should provide the inside wiring at the tariffed rates less the applicable 20-90% discount").

[3536] WinStar comments at 8-9.

[3537] *See, e.g.*, Ameritech comments at 20; BellSouth comments at 29; GTE comments at 97; MCI comments at 16-17; Seattle comments at 2; Teleport comments at 9; Motorola reply comments at 9, 13.

[3538] Ameritech comments at 19-20.

brings to the process many benefits which can be gained through the natural operation of competitive forces."[3539]

299. Several commenters raise issues that they contend must be clarified so that the competitive bidding process can operate smoothly. Nextel and other commenters contend, for example, that the Commission's competitive bidding rules must state that schools and libraries need not select the provider that submits the lowest bid. These commenters argue that schools and libraries should be permitted the flexibility to determine which bid best fits their particular requirements.[3540] AOL recommends that the Commission clarify that schools and libraries may consider such factors as amount of classroom down time, quality connections, and customer support services, in addition to the price of service, when determining which Internet subscription charge is the most cost-effective. AOL states that the alternative, which would require schools and libraries to accept the lowest bid for Internet access, would provide schools and libraries with no flexibility to choose services that best meet their needs.[3541] Community Colleges states that "[q]uality concerns must be recognized in the competitive bidding process to ensure that schools are not relegated to take service from unreliable carriers simply because they outbid competitors."[3542]

[3539] BellSouth comments at 29.

[3540] *See, e.g.,* AOL comments at 8; Community Colleges comments at 16-17; iSCAN comments at 3-4; Nextel comments at 11-12; PacTel comments at 49-50; U S WEST comments at 47-48; GI reply comments at 5.

[3541] AOL comments at 8.

[3542] Community College comments at 17. *See also* EDLINC comments at 10 n.10 (stating that "schools and libraries should be free to reject low bidders on grounds permitted by local procurement rules, such as a past record of poor performance"); iSCAN comments at 3 (stating that schools and libraries should be able to make their final choice of service providers based on price and quality); PacTel comments at 49-50 (stating that schools and libraries should be permitted to select service providers based on attributes other than price, such as quality, reliability, and service); U S WEST comments at 47-48 (stating that "if a particular school's procurement processes allow it to take into account factors other than price (e.g., reliability of provider or value add-ons) in

300. Other commenters contend that potential service providers participating in the schools and libraries competitive bidding process should be required to submit "unbundled" bids that identify the costs of all covered services separately.[3543] Community Colleges asserts, for example, that providers of such services as Internet access and internal connections need not also provide the whole bundle of services that a school or library seeks in order to collect from universal service support mechanisms.[3544] Nextel asserts that an unbundling requirement would permit new entrants, such as wireless service providers, to compete to provide advanced services.[3545] WinStar maintains that "[s]uch an unbundling would maximize the number of competitors who could respond to RFPs and thereby maximize competition for the provision of supported services."[3546] ALTS maintains that "[i]f the services were not bid separately, joint marketers would have an unfair competitive advantage."[3547] NCTA notes that maximizing the number of competing bidders will result in a lower pre-discount price for

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choosing among competing bids, the Commission should not invalidate those requirements or rules by mandating that the school accept the lowest bid price"); GI reply comments at 5 (stating that "[s]chools should be allowed to choose the service provider they believe offers them the most for their money, which may or may not be the lowest bidder"). *But see* GCI reply comments at 13 (stating that the Commission should require schools and libraries to accept the lowest bid).

[3543] *See, e.g.,* ALTS comments at 16; Community Colleges at 15; Cox at 13; Nextel comments at 12-13; Time Warner comments at 11; WinStar comments at 3, 10. *See also* NCTA comments at 18 (supporting use of separate RFPs).

[3544] Community Colleges comments at 13-14.

[3545] Nextel comments at 12-13.

[3546] WinStar comments at 3. *Cf.* Community Colleges comments at 15 ("[p]ermitting such bundling, without a requirement to submit independent bids for particular services, will restrict the meaningful choice of schools and libraries to take service from those entities that may more efficiently provide advanced services (*e.g.*, wireless providers, cable providers") (footnote omitted).

[3547] ALTS comments at 16.

schools and libraries. NCTA also notes that the use of separate RFPs for individual service offerings such as telecommunications services and internal connections "will reduce the opportunities for ILECs to make non-compensatory, cross-subsidized low bids for particular competitive components of an RFP and to make up the difference by undetected higher prices charged for monopoly services in a `package' RFP."[3548]

301. GTE and SBC raise a potential conflict between the Joint Board's recommended competitive bidding requirement and existing federal tariff restrictions applicable to ILECs.[3549] SBC maintains that, at the present time, ILECs are limited to providing services under publicly available tariffed rates and because competitors will know precisely what an ILEC is required to bid, competitors will underbid and effectively exclude ILECs from providing services to the lucrative schools and libraries market. GTE asserts that such a result would be contrary to the intent of the Recommended Decision, which contemplates a competitive bidding process open to all carriers.[3550] GTE and SBC state that they have attempted to have their tariff restrictions revised to allow them to respond to competitive bid requests with other than tariffed rates, but that the Commission has rejected their attempts.[3551] These carriers also note that the Court of Appeals recently remanded SBC's tariff to the Commission for further consideration because of the Commission's refusal to consider the issue of "competitive necessity."[3552] GTE urges the Commission to consider the issue of "competitive necessity" in the context of ILECs providing services to schools and

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[3548] NCTA comments at 21.

[3549] *See* GTE comments at 97-98; SBC comments at 39-41.

[3550] GTE comments at 98.

[3551] GTE comments at 97 (*citing Southwestern Bell Telephone Co*, 11 FCC Rcd 1215 (1995) and *GTE Telephone Operating Cos*., 11 FCC Rcd 3698 (1995) *appl. for rev. pending*); SBC comments at 40.

[3552] GTE comments at 97-98 (*citing Southwestern Bell Telephone Company v. FCC*, Case. No. 95-1592 (D.C. Cir. Nov. 26, 1996); SBC comments at 40 (same).

libraries, and emphasizes that the principle of competitive neutrality requires that tariff relief be adopted before any universal service competitive bidding requirement is adopted.[3553] SBC states that "[b]y effectively excluding incumbent LECs from providing service to schools and libraries without any explanation whatsoever, the Joint Board has recommended an approach that is unreasonable, arbitrary, and otherwise unlawful."[3554]

302. USTA and EDLINC maintain that the Commission must clarify the obligations of carriers of last resort, in the event that a school or library issues an RFP and receives no bids.[3555] EDLINC states that "[t]here must either be a carrier of last resort that will provide the requested services at an affordable rate, or all service providers serving the geographic area must be under an affirmative obligation to submit their LCPs [lowest corresponding prices] in response to an RFP."[3556] USTA contends that the Commission must clarify "how the obligation of carriers of last resort mesh with the new universal service requirements."[3557]

303. Commenters raise several other issues regarding the competitive bidding requirement. NASTD expresses the concern that posting descriptions of services on a website for the purpose of soliciting competitive bids may not comply with the procurement code with which state and local government entities must comply.[3558] GTE states that, if the website arrangement does not permit electronic searches or automatic retrieval of bid requests,

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[3553] GTE comments at 98. *See also* SBC comments at 40 (requiring ILECs to comply with tariff restrictions in the context of competitive bidding is not competitively neutral).

[3554] SBC comments at 41.

[3555] USTA comments at 53; EDLINC reply comments at 9-10.

[3556] EDLINC reply comments at 6-10.

[3557] USTA comments at 38.

[3558] NASTD comments at 4-5.

"schools and libraries should be required to provide other forms of notification to maximize the number of bids."[3559] NCTA asserts that requiring schools and libraries to publish notice of their service requests in their local daily newspapers for some reasonable period of time would give all potential service providers equal opportunity to bid and would increase the number of bids received by schools and libraries. According to NCTA, "[g]iven the magnitude of the support at issue and the potential for lower prices resulting from more bidders, the expense of such newspaper publication will be *de minimis*."[3560] BellSouth maintains that the website could be used to post both bids and the assignment of discounts, so that carriers could verify the discount that applies to each school and library.[3561] TCI recommends requiring vendors to submit their qualifications and demonstrate that they have both the resources and the experience to provide the requested services.[3562] Vermont PSB asserts that a competitive bid process is not necessary to stimulate competition, and, because of the administrative burden, recommends that the Commission adopt a waiver for schools and libraries with fewer than ten access lines.[3563] Teleport and NCTA support limiting competitive bidding to one round of sealed bids, in order to minimize the burden imposed on schools and libraries,[3564] while EDLINC asserts that the Commission should permit local conditions to prevail to determine bidding structure.[3565]

[3559] GTE comments at 100.

[3560] NCTA reply comments at 17.

[3561] BellSouth comments at 30.

[3562] TCI comments at 10.

[3563] Vermont PSB comments at 18.

[3564] NCTA comments at 22; Teleport comments at 9; GCI reply comments at 14.

[3565] EDLINC reply comments at 12.

304. Numerous commenters support the Joint Board's recommendation to allow schools and libraries to participate in consortia with both eligible and ineligible entities for the purpose of aggregating demand.[3566] EDLINC and Washington UTC, for example, agree with the Joint Board's conclusion that denying schools and libraries the efficiencies that would result from participating in consortia would not be in the public interest.[3567] Washington UTC also agrees with the Joint Board's conclusion that the benefits of participating in consortia far outweigh the potential of abuse, stating that "[i]t is absolutely essential that schools, libraries and other public facilities participate in community-based demand aggregation efforts to ensure that advanced network services are available to all Americans."[3568] BellSouth asserts that the market power generated by consortia may result in making services affordable without the assistance of universal service support, and suggests that the Commission consider modifying the Joint Board's recommendations regarding consortia to reflect this significant market power.[3569]

305. Lowest Price Charged to Similarly Situated Non-Residential Customers for Similar Services. Numerous commenters note that using the lowest price charged to similarly situated non-residential customers for similar services ("lowest corresponding price") to

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[3566] *See, e.g.*, ALA comments at 9; Alliance for Community Media comments at 10; BellSouth comments at 39-40; Community Colleges comments at 21; EDLINC comments at 5; Florida Dept. of Management Services comments at 1-2; Georgia Dept. of Administrative Services comments at 2; MassLibrary comments at 1; Washington Library comments at 8; Washington UTC comments at 8-9.

[3567] EDLINC comments at 5; Washington UTC comments at 8.

[3568] Washington UTC comments at 8-9.

[3569] BellSouth comments at 39-40.

determine the pre-discount price is a concept that requires clarification.[3570] Some commenters address the question of defining what constitutes a "similarly situated non-residential customer."[3571] ALA, for example, contends that the definition of a similarly situated non-residential customer should not be so narrow as to exclude comparable customers whose situations differ only marginally from an eligible school or library. ALA asserts that "[d]ifferences in situation should be limited to those factors that demonstrably and significantly impact the direct cost of providing a service in one area versus another and/or one customer versus another."[3572] USTA asks the Commission to clarify that a carrier need only consider one of its own similarly situated customers, rather than the customer of another carrier, to determine the pre-discount price to be offered to schools and libraries.[3573] Ameritech asserts that a school or library would not be similarly situated to a customer in the latter years of a multi-year contract, and that the lowest corresponding price should be based on a recently charged rate.[3574] NTIA asserts that state public service commissions are better positioned to ascertain lowest corresponding prices because they interact with customers on a

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[3570] *See, e.g.,* ALA comments at 14; Ameritech comments at 20; Brooklyn Public Library comments at 2-3, 6-7; Community Colleges comments at 15-16; Cox comments at 11; MCI comments at 17; New Jersey Advocate comments at 8; PacTel comments at 48-50; SBC comments at 41-42; USTA comments at 37-39; U S WEST comments at 48; WinStar comments at 11-12. *But see* EDLINC comments at 6-7 (supporting use of a national benchmark pre-discount price); CEDR comments at 14 (same).

[3571] *See, e.g.,* ALA comments at 14; Ameritech comments at 20; Brooklyn Public Library comments at 2-3; EDLINC comments at 8-9; USTA comments at 37-39. *But see* New Jersey Advocate comments at 8 (stating that carriers should be required to provide services to schools and libraries at rates no higher than rates charged to *residential* customers for equivalent services).

[3572] ALA comments at 14.

[3573] USTA comments at 37-39.

[3574] Ameritech comments at 20.

daily basis and are better able to make the necessary factual determinations.[3575]

306. EDLINC maintains that carriers should not be permitted to consider such factors as length of contract and proximity to switching facilities to determine whether a non-residential customer is similarly situated to a school or library. EDLINC maintains that, instead, the concept of similarly situated non-residential customer should be simplified to mean a user of roughly equivalent volume to that of an eligible school or library, and that the pool of similarly situated customers should include both eligible schools and libraries and ineligible entities.[3576] To allow carriers to apply a broad range of factors in setting prices, according to EDLINC, will subvert the entire lowest corresponding price mechanism.[3577] Recognizing EDLINC's concern that prices differ from location to location and carrier to carrier, SBC opposes EDLINC's proposal and states that there are legitimate reasons, including costs and state regulatory policies, that account for those differences in prices.[3578] Ameritech asserts that a requirement to ignore distance factors would be misdirected because "distance is a primary factor in determining differences in nontraffic sensitive costs in many cases."[3579]

[3575] NTIA reply comments at 23.

[3576] EDLINC comments at 8-9. *See also* NTIA reply comments at 23 (finding "merit in EDLINC's `volume of usage' criterion").

[3577] EDLINC reply comments at 6.

[3578] SBC reply comments at 22. *See also* PacTel reply comments at 26 (supporting the Joint Board's recommendation to base the pre-discount price on the amounts charged for similarly situated non-residential customers for similar services and stating that "[c]ontrary to EDLINC's view, this formulation may give rise to regional differences that cause the LCP [lowest corresponding price] to differ within a carrier's service area").

[3579] Ameritech reply comments at 6. *See also* BANX reply comments at 21-22 (stating that EDLINC's proposal should be rejected and that the lowest corresponding price should be "based on all factors that affect the cost of service").

307. While maintaining that the concept of lowest corresponding price needs clarification, EDLINC continues to assert that the use of a nationally based pre-discount price is the better approach. EDLINC contends that a national pre-discount price "would ensure that rates are not computed from an artificially high base and help ensure that the final discounted rate is as low as possible" and "would allow establishment of uniform rates for the same service, thus putting schools and libraries on a more equal footing."[3580] SBC also states that adopting EDLINC's proposal to establish a national benchmark pre-discount price would violate section 254(h)(1)(B) of the Act.[3581] Furthermore, Ameritech asserts that "in cases in which the national benchmark rate is not compensatory for the particular carrier, there would be unlawful confiscation."[3582]

308. ALA seeks clarification on the concept of "similar services."[3583] ALA recommends that the Commission clarify that services that are otherwise similar are not made dissimilar simply because one is offered under contract and the other under tariff. ALA maintains that this clarification would be consistent with the Joint Board's recommendation that schools and libraries be afforded maximum flexibility in selecting the package of services that best meets their needs. According to ALA, such a definition "also maximizes the number of choices available to libraries thereby promoting a more competitive environment and efficient use of funds."[3584]

[3580] EDLINC comments at 6.

[3581] SBC reply comments at 22.

[3582] Ameritech reply comments at 6 (also stating that because carriers would not receive explicit support for the difference between their own lowest corresponding price and a national benchmark price, "the difference would be maintained as an implicit subsidy and is clearly inappropriate").

[3583] ALA comments at 14.

[3584] ALA comments at 14.

309. Some commenters seek clarification on the length of time that a particular lowest corresponding price would remain in effect.[3585] USTA asserts that the lowest corresponding price applicable within 12 months of the bid should be used to compute the bid price, and that lowest corresponding price should remain in effect for the life of the contract.[3586] EDLINC agrees, but maintains that the applicable time period should be 24 months, "to make it more likely that there will be a contract that applies to a particular service and similarly situated customer."[3587] When the contract is renegotiated, USTA contends that a new lowest corresponding price should be calculated based on current market conditions.[3588] PacTel concurs and maintains that the school or library contract price should remain fixed at no more than the lowest corresponding price at the time the contract is signed. The contract price should not be affected by subsequent fluctuations up or down in the prices charged to others.[3589]

310. Several commenters address what constitutes "geographic area" for purposes of determining the lowest corresponding price.[3590] Community Colleges, for example, supports the Joint Board's recommendation that geographic area means the area in which the service provider is seeking to serve customers. Community Colleges asserts that this definition of geographic area "will create meaningful opportunities for new service providers to gain economic footholds in new markets" and will "prevent the unnecessary exclusion of new entrants that are unable to provide services throughout an incumbent LEC's entire service

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[3585] *See, e.g.,* PacTel comments at 48-49; USTA comments at 37-39; EDLINC reply comments at 10.

[3586] USTA comments at 37-39.

[3587] EDLINC reply comments at 10.

[3588] USTA comments at 37-39.

[3589] PacTel comments at 48-49.

[3590] *See, e.g.,* Ameritech comments at 21; Community Colleges comments at 15-16; Cox comments at 11; PacTel comments at 49; SBC comments at 41; BANX reply comments at 22.

area."[3591] Cox recommends that the Commission more narrowly define geographic area to encompass a school district because the smaller the service area, the larger number of service providers that will be likely to bid to provide services to schools and libraries.[3592] PacTel interprets the definition of geographic area to permit a carrier to consider geographic price differences when calculating the lowest corresponding price, and therefore does not require carriers to offer the same lowest corresponding price to all schools and libraries in its service area. PacTel maintains that requiring a carrier to offer the same lowest corresponding price to all schools and libraries in its service area, regardless of price differences, would be "irrational and perhaps confiscatory."[3593]

311. Some commenters consider the application of lowest corresponding price to areas in which there is no competition.[3594] USTA seeks clarification on how the lowest corresponding price concept will apply when there is no competition and how the obligations of carriers of last resort interact with universal service obligations.[3595] MCI and EDLINC

[3591] Community Colleges comments at 15-16. *See also* EDLINC comments at 10 (supporting the Joint Board's recommendation regarding geographic area and stating that the definition will only be relevant in limited circumstances).

[3592] Cox comments at 11.

[3593] PacTel comments at 49 (noting that the lowest corresponding price determines the rate of reimbursement from universal service support mechanisms, and if the lowest corresponding price is below cost, it would be confiscatory). *See also* SBC comments at 41 (stating that "[i]f the LCP [lowest corresponding price] concept is implemented across a broad geographic area, where costs can vary significantly, then carriers are penalized for serving broad geographic areas," resulting in carriers not being able to recover costs in high cost areas); BANX reply comments at 22 (agreeing with PacTel that requiring a carrier to offer the same lowest corresponding price throughout its service area would be "`irrational, and perhaps confiscatory'").

[3594] *See, e.g.,* MCI comments at 17; PacTel comments at 50; USTA comments at 37-39.

[3595] USTA comments at 37-39.

maintain that TSLRIC should apply in non-competitive markets,[3596] while BANX and SBC contend that using TSLRIC to determine the pre-discount price would violate section 254(h)(1)(B).[3597] PacTel asserts that the lowest tariff rate in the county in which a school or library is located should constitute the lowest corresponding price in such situations, unless a cost-based agreement would produce a lower price.[3598] PacTel also asks that the Commission clarify that carriers may rely on existing tariffs, rather than being required to file new tariffs, to determine the lowest corresponding price for services provided to schools and libraries.[3599]

312. Other commenters oppose the use of the lowest corresponding price to determine the pre-discount price for schools and libraries.[3600] U S WEST maintains, for example, that because a carrier may not charge for some services, calculating the lowest corresponding price would be extremely difficult.[3601] WinStar asserts that the lowest corresponding price is unnecessary because competition in the bidding process will ensure that

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[3596] MCI comments at 17; EDLINC reply comments at 9.

[3597] BANX reply comments at 22-23 (stating that section 254(h)(1)(B) requires that carriers be reimbursed for discounts from "`amounts charged for similar services to other parties'"); SBC reply comments at 21 (stating that "[t]he literal and unambiguous language of [s]ection 254(h)(1)(B) mandates that the discounts from the carrier's otherwise applicable charges are to be reimbursed from the universal service fund"). *See also* PacTel reply comments at 26-27 (stating that "[t]he `amounts charged' language of the Act reflects Congress' intent for pre-discount prices to be based on *actual market prices* rather than theoretical pricing constructs").

[3598] PacTel comments at 50.

[3599] PacTel comments at 50.

[3600] *See, e.g.,* SBC comments at 41-42; U S WEST comments at 48; WinStar comments at 12.

[3601] U S WEST comments at 48. *See also* SBC reply comments at 21 (stating that the lowest corresponding price concept "may be unworkable" and "should be rejected as administratively impracticable").

the prices offered to schools and libraries are the lowest available.[3602] WinStar also maintains that, at the very least, the Commission should not require non-dominant carriers to certify that the price offered is the lowest corresponding price. WinStar maintains that such a ruling would be consistent with the Commission's decision to eliminate tariff filing requirements for non-dominant carriers, which was based in part on the conclusion that non-dominant carriers could not control the market price or set prices at exorbitant levels.[3603] SBC contends that the entire lowest corresponding price concept violates the Act because the language of 254(h)(1)(B) "plainly means that the price a carrier would otherwise charge the school or library is the pre-discount price."[3604] SBC asserts that implementation of the lowest corresponding price would "artificially lower the reimbursement level" and "appears to mandate an unfunded discount."[3605]

313. Finally, Citizens Utilities addresses concerns regarding the special circumstances under which a particular subset of schools and libraries is currently receiving below-cost rates that were established through negotiated resolution of a state commission's earnings investigation.[3606] Citizens Utilities maintains that such rates should apply only to the schools or libraries that are part of such a regulatory bargain, and should not apply to any other school or library. That is, such a below-cost price should not be used to establish the

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[3602] WinStar comments at 4, 11.

[3603] WinStar comments at 12.

[3604] SBC comments at 41.

[3605] SBC comments at 41.

[3606] Citizens Utilities comments at 17-18.

pre-discount price for all schools and libraries within a carrier's service area.[3607]

b. Discounts

314. Numerous commenters support the Joint Board's recommendation that schools and libraries receive discounts ranging from 20 percent to 90 percent.[3608] EDLINC, for example, states that "the wide range of the proposed discounts is essential if final discounted rates are to be affordable for all schools and libraries."[3609] Illinois State Library asserts that the 20 percent to 90 percent discounts "will be instrumental in assisting libraries in meeting the information needs of their community of users."[3610] USTA notes that the discount matrix recommended by the Joint Board should be easy to administer.[3611]

315. Other commenters oppose the Joint Board's recommended discount structure.[3612] ALTS, for example, expresses the concern that there does not seem to be any concrete

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[3607] Citizens Utilities comments at 17-18. *See also* PacTel reply comments at 27 (stating that the lowest corresponding price should not be based on short-term promotional rates because of the risk that a carrier will have to offer "in perpetuity a special promotional rate, or the rate the carrier charges other schools and libraries, even if the carrier's costs increase").

[3608] *See, e.g.,* ALA comments at 2; Alliance for Community Media comments at 10; EDLINC comments at 3; Illinois State Library comments at 1; Mississippi comments at 5; Owen J. Roberts School District comments at 1; PacTel comments at 51-52; Teleport comments at 9; Urban League comments at 3-4; Universal Service Alliance comments at 9; USTA comments at 36; Washington Library comments at 2; Atlanta Board of Education reply comments at 1; Fort Frye School District reply comments at 1.

[3609] EDLINC comments at 3.

[3610] Illinois State Library comments at 1.

[3611] USTA comments at 36.

[3612] *See, e.g.,* ALTS comments at 18; LCI comments at 11.

evidence that 20 percent to 90 percent discounts are necessary for schools and libraries, and warns that analysis outlining why those particular discount rates were chosen must be completed before discounts are permitted.[3613] LCI states that the proposed discounts are "excessive" and that no discount above 20 percent should be permitted.[3614]

316. Discounts in High Cost Areas. Most commenters support giving a greater discount to schools and libraries located in high cost areas.[3615] ALA states, for example, that "[a]dditional discounts for high cost areas are not only appropriate, they are clearly called for in the law."[3616] Illinois State Library asserts that high cost of services is as important a consideration as level of economic disadvantage in making services affordable to libraries.[3617] United States Senator Charles S. Robb states that "[t]he Joint Board recognizes in its recommendations and the FCC should continue to recognize in the final rules that affordability includes not only the ability for a school to pay for services, but the total cost of

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[3613] ALTS comments at 18.

[3614] LCI comments at 11. *See also* AirTouch reply comments at 30-31 (supporting LCI's position because "[i]t is a sound way to ensure that the broadest number of schools and libraries benefit, and thus the largest number of children benefit, from this support program").

[3615] *See, e.g.,* ALA comments at 5-6; Alliance for Distance Education comments at 2; Ameritech comments at 21; Brooklyn Public Library comments at 4-6; BellSouth comments at 37; CEDR comments at 2, 10; Colorado LEHTC comments at 2; EDLINC comments at 15-16; Governor of Guam comments at 11-12; Great City Schools comments at 4-5; Illinois Board of Education comments at 2; Illinois State Library comments at 1-2; ITC comments at 8; New York DOE comments at 4; PacTel comments at 51; RTC comments at 38; SBC comments at 9; Teleport comments at 9; USTA comments at 37; Washington Library comments at 5-7; Washington UTC comments at 6; West Virginia Consumer Advocate comments at 7-19; WorldCom comments at 30; Wyoming PSC comments at 10-11.

[3616] ALA comments at 5.

[3617] Illinois State Library comments at 1. *See also* RTC comments at 41 (stating that including a high cost variable in the discount matrix is necessary to ensure that the affordability requirement of the 1996 Act is met).

obtaining services in that school's area."[3618]

317. Some commenters suggest modifications to the discount structure recommended by the Joint Board.[3619] ALA, EDLINC, and NTIA, for example, contend that the discount matrix contained in the Recommended Decision fails adequately to address the needs of libraries in high cost areas. These commenters note that, for economically disadvantaged schools and libraries, there is no greater discount for those located in high cost areas than for those in low cost areas, and even in the less disadvantaged categories where there is a greater percentage discount for those in high costs areas, that additional percentage discount is not adequate to address the true cost differential.[3620] ALA and NTIA assert, therefore, that the discount matrix should be adjusted to reflect a discount for schools and libraries located in high cost areas greater than the Joint Board recommended.[3621] NTIA recommends that the most economically disadvantaged schools receive steeper discounts based on their location in a high cost area. That is, NTIA suggests that schools with 50 percent to 74 percent of their students eligible for the national school lunch program receive discounts ranging from 75 percent if located in a low cost area, to 80 percent if located in a mid-cost area, to 85 percent

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[3618] Charles S. Robb reply comments at 2.

[3619] *See, e.g.,* ALA comments at 7; CNMI comments at 15-17; Cox comments at 13-14; Mississippi comments at 5.

[3620] ALA comments at 7; EDLINC comments at 16; NTIA reply comments at 24-25. EDLINC provides the following example of the cost differential between high cost and low cost schools:

> For example, schools in Vancouver, Washington, pay about $125.00 per month for a T-1 line, while schools in rural White Salmon, Washington, pay $2,100.00 per month for the same service -- a difference of over 1600 percent.

EDLINC comments at 16 (*citing* a survey conducted by the American Association of School Administrators, August 1996). *See also* Washington Library comments at 5-6 (expressing concerns about the lack of additional high cost support for the most economically disadvantaged schools and libraries and stating its belief that "the discount scale should provide more support for the combination of high cost/high economic need").

[3621] ALA comments at 7.

if located in a high cost area. NTIA also recommends that schools with 75 percent to 100 percent of their students eligible for the national school lunch program receive discounts ranging from 85 percent if located in a low cost area, to 90 percent if located in a mid-cost area, to 95 percent if located in a high cost area.[3622]

318. EDLINC maintains that areas in which there is no competition should be treated as high cost areas because "[i]f there is no competition in an area, even the price offered to similarly-situated customers is likely to reflect the lack of competition and therefore result in a higher discount price than would be available to schools and libraries in areas where there is competition."[3623] CNMI asserts that the discount matrix should be modified to reflect per-capita income levels. As support for that premise, CNMI states that, although just under 70 percent of children in the Commonwealth are eligible for the national school lunch program and its schools, therefore, would not qualify for the greatest discount under the Joint Board proposal, the Northern Mariana Islands have among the lowest telephone subscribership rates and some of the highest telecommunications rates in the nation.[3624]

319. Discounts for Economically Disadvantaged Schools and Libraries. Several commenters support the Joint Board's decision not to grant 100 percent discounts to schools

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[3622] NTIA reply comments at 24-25. *See also* West Virginia Consumer Advocate comments at 7-10 (asserting that the Commission should amend the proposed discount matrix to provide an 85 percent discount for high cost schools and libraries with between 50 and 74 percent of their students eligible for the national school lunch program, and a 95 percent discount for high cost schools with over 75 percent of their students eligible for the national school lunch program.)

[3623] EDLINC comments at 9.

[3624] CNMI comments at 15-16. *See also* Mississippi comments at 5 (suggesting that discounts should be based on data such as per capita income and households below the poverty line reflecting the entire economic condition of an area rather than just its schools).

and libraries.[3625] Ameritech maintains that requiring schools and libraries to contribute toward the cost of covered services will encourage them to solicit the best pre-discount price and will discourage wasteful purchases.[3626] BellSouth states that requiring schools and libraries to share in the expense of services will prompt them to "seek the best pre-discount price and to make informed, knowledgeable choices among their options, thereby building in effective fiscal constraints on the discount fund."[3627] Other commenters, however, contend that even the highest discounts recommended by the Joint Board will not render supported services affordable to the most economically disadvantaged schools and libraries.[3628] Washington SPI recommends that such schools and libraries be eligible for a Lifeline program similar to the program currently in place for eligible low-income consumers.[3629]

320. ALA asserts that the Joint Board's proposed discount matrix does not adequately address the needs of libraries, because ALA contends that poverty data, rather than school lunch eligibility data, should be used to determine libraries' levels of economic disadvantage. ALA, therefore, submits an alternate discount matrix that uses the percentage of residents living in poverty within a one mile radius of a library outlet to determine a

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[3625] *See, e.g.,* Ameritech comments at 20; BellSouth comments at 34; Washington UTC comments at 6.

[3626] Ameritech comments at 20.

[3627] BellSouth comments at 34.

[3628] *See, e.g.,* Alliance for Community Media comments at 11; CEDR comments at 16; Washington SPI comments at 1.

[3629] Washington SPI comments at 1. *See also* CEDR comments at 16 (recommending that in districts where even the maximum level of discount does not make services affordable, "the option should exist to appeal to the state regulatory commission for an additional lifeline discount").

library's level of economic disadvantage.[3630] The matrix is based on a sample of 500 library outlets and uses 1990 U.S. Census poverty data.[3631] The percentage breakdowns proposed by ALA are based on the percentage breakdowns in the Joint Board's recommended discount matrix. For example, 16 percent of schools have between 50 and 74 percent of their students eligible for the national school lunch program. The Joint Board proposed giving such schools an 80 percent discount on supported services. ALA states that 16 percent of libraries have between 16 and 22 percent of the patrons within a one mile radius living at or below the poverty line. ALA recommends that such libraries also be eligible for an 80 percent discount on supported services. According to ALA, an area in which over 22 percent of the population is at or below the poverty line is considered extremely impoverished.[3632]

c. Identifying High Price Areas

321. Some commenters support the Joint Board's recommendation to use unseparated loop costs to determine the high cost discount for schools and libraries.[3633] ALA, for example, states that unseparated loop costs "may well be a convenient and useful method of estimating eligibility."[3634] Alliance for Distance Education contends that the Commission

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[3630] Letter from Carol C. Henderson, ALA, to Mark Nadel, Common Carrier Bureau, dated March 17, 1997 at Att. 2 (ALA March 17 *ex parte*)

[3631] ALA March 17 *ex parte* at Att. 2.

[3632] Letter from J. Andrew Magpantay, ALA, to Irene M. Flannery, Common Carrier Bureau, dated April 4, 1997 (ALA April 4 *ex parte*).

[3633] *See, e.g.,* ALA comments at 5-6; Alliance for Distance Education comments at 2; New York DOE comments at 4; West Virginia Consumer Advocate comments at 7-10. *But see* RTC comments at 41-42 (supporting use of total unseparated loop costs because schools and libraries have different requirements and a different geographical relationship to central office locations than individual subscribers).

[3634] ALA comments at 6.

should use unseparated loop costs until review of the program in 2001.[3635] West Virginia Consumer Advocate asserts that the Commission should use unseparated loop costs to develop a definition of low, high, and mid-cost schools and libraries.[3636]

322. Other commenters support using the same mechanism to determine high cost for schools and libraries as that used to determine high cost support for "core" services.[3637] SBC asserts that using the same mechanism will be less administratively burdensome than implementing and maintaining different mechanisms.[3638] USTA contends that because the Commission is currently working to develop a proxy model for the high cost portion of core services funding, there is no need to develop a separate model for schools and libraries.[3639] ITC recommends using the same mechanism to determine high cost for "core" services and schools and libraries, but also recommends eliminating from the final discount matrix the mid-cost category contained in the Recommended Decision matrix.[3640] EDLINC states that using the same high cost methodolgy for core services and for schools and libraries generally appears to be reasonable, with one exception. In some areas with developed core networks but with relatively low demand for the more advanced services to which schools and libraries may subscribe, EDLINC contends that there may not be a correlation between the cost of

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[3635] Alliance for Distance Education comments at 2.

[3636] West Virginia Consumer Advocate comments at 7-10.

[3637] *See, e.g.,* BellSouth comments at 37; ITC comments at 8; NCTA comments at 19; SBC comments at 9; Teleport comments at 9; USTA comments at 37; WorldCom comments at 30; Wyoming PSC comments at 10-11.

[3638] SBC comments at 9.

[3639] USTA comments at 37.

[3640] ITC comments at 8.

providing core services and the cost of providing advanced services.[3641]

323. Some commenters provide alternative methods for calculating the high cost discount for schools and libraries.[3642] Colorado LEHTC recommends that the Commission "consider all rural areas, as defined by the Department of Health and Human Services' Office of Rural Health Policy including the Goldsmith Modification, to be high cost areas for the purposes of the discount matrix."[3643] Governor of Guam maintains that the Commission should provide for additional mechanisms, over and above the discount matrix, so that schools and libraries for which the lowest bid for services is over 115 percent of the national average, for example, should be eligible to receive discounts in addition to those contemplated in the discount matrix.[3644] PacTel contends that all schools and libraries participating in the discount program should submit to the administrator a written statement of the retail price of a T-1 connection from the school or library to the point of presence of the nearest service provider. The administrator should be directed to sort the data and calculate dividing lines to distinguish between higher and lower cost categories to conform to the allocation percentages in the Joint Board's proposed discount matrix.[3645] EDLINC, however, maintains that service providers, rather than schools and libraries, should be required to submit pricing information

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[3641] EDLINC reply comments at 16-17.

[3642] *See, e.g.,* Brooklyn Public Library comments at 4-6; Colorado LEHTC comments at 2; Governor of Guam comments at 11-12; Illinois State Library comments at 1-2; New York DOE comments at 4; PacTel comments at 51; RTC comments at 41-42; West Virginia Consumer Advocate comments at 7-10.

[3643] Colorado LEHTC comments at 1-2 (stating that "distance and isolation combine to create unaffordable rates").

[3644] Governor of Guam comments at 11-12.

[3645] PacTel comments at 51.

because the providers are much more familiar with their pricing structures.[3646] Illinois State Library asserts that high cost for schools and libraries should be calculated using a population density factor.[3647] New York DOE suggests that availability of advanced services should be considered in determining high cost for schools and libraries.[3648] AFT states that the definition of high cost should consider factors that lead schools in densely populated, low-income areas to pay high telecommunications costs. According to AFT, these factors include the cost of providing the complex technologies required by students with disabilities and the higher costs associated with protecting and maintaining educational facilities and equipment.[3649]

324. Finally, Brooklyn Public Library asserts that the Joint Board's recommendations did not adequately consider high cost factors and to correct the flaw it perceives, proposes an alternative, two-part formula for determining the high cost discount. Brooklyn Public Library recommends calculating local baseline rates for all services. In areas in which certain advanced services, such as frame relay, are not available and the subscriber pays a "premium" rate for those advanced services, that "premium" rate should be discounted to the local baseline rate. This discounted rate would be known as the adjusted baseline rate. Brooklyn Public Library then recommends that the adjusted baseline rate be compared against a national average of local baseline rates to calculate an additional discount. These two discounts would comprise the high cost discount.[3650]

d. Identifying Economically Disadvantaged Schools and Libraries

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[3646] EDLINC reply comments at 15.

[3647] Illinois State Library comments at 1-2.

[3648] New York DOE comments at 4.

[3649] AFT reply comments at 2-3.

[3650] Brooklyn Public Library comments at 4-6.

325. Schools. Many commenters support using eligibility for the national school lunch program to determine a school's level of economic disadvantage.[3651] Great City Schools, for example, states that use of the national school lunch program "is workable, it is nationally understandable, it is uniform, and it is as fair or fairer on the whole as [any] other measure of poverty."[3652] AFT notes that since eligibility for the national school lunch program is based on family income, it is "generally regarded as a good indicator of schools' and districts' ability to afford educational services."[3653] Washington UTC contends that using eligibility for the national school lunch program "is likely to result in a more accurate determination of the school's need level than a measure which examines general community income."[3654] Washington UTC further asserts that using a measure of economic disadvantage that is external to the school itself, such as average area income, is not as likely to reflect the level of poverty within schools or school districts.[3655] USTA maintains that "[u]sing an existing and readily available metric has the advantage of being both simple and relatively

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[3651] *See, e.g.,* AFT comments at 3; Alliance for Distance Education comments at 2; Great City Schools comments at 3-4; Kansas CC comments at 4-5; NCTA comments at 20; New York DOE comments at 4; Ohio DOE comments at 6; USTA comments at 36-37; Washington UTC comments at 6-7. Children from families whose incomes are 130 percent or less of the poverty level qualify for a free lunch, while children from families whose incomes are between 130 percent and 185 percent of the poverty level qualify for a reduced price lunch. *See* 47 U.S.C. § 1758(b).

[3652] Great City Schools comments at 3. *Cf.* Time Warner comments at 33 (stating that "[a]lthough adoption of the national school lunch program standard for differentiating among wealthy and disadvantaged schools will help, the Commission should continue to evaluate and refine other approaches to minimize the drain on the limited resources available to support universal service").

[3653] AFT comments at 3.

[3654] Washington UTC comments at 7.

[3655] Washington UTC comments at 7.

inexpensive to administer."[3656]

326. Some commenters address the use of eligibility for the national school lunch program to determine discounts for non-public schools.[3657] Great City Schools supports using eligibility for the national school lunch program and "disputes any contention that the free or reduced price lunch index and child count is not a viable measure of poverty for private and parochial schools."[3658] Great City Schools also contends that the burden imposed on non-public schools is not great because school-wide counts of low-income children are used to determine eligibility for other federal programs, such as Title I of the Improving America's Schools Act of 1994.[3659] Further, Great City Schools maintains that alternate methods of determining the actual number of low-income children that involve a mathematical equating of one measure of poverty with another are currently permitted by regulation.[3660] For

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[3656] USTA comments at 36 (noting also that "the Commission should seek guidance from the education community and others more familiar with these issues before making a final decision"). *See also* AFT comments at 3 ("[u]sing school lunch criteria minimizes administrative burden").

[3657] AFT comments at 3-4; Great City Schools comments at 2-4.

[3658] Great City Schools comments at 2. *See also* Washington UTC comments at 7 (supporting use of eligibility for the national school lunch program for non-public schools, stating that "[u]se of the same measure for both public and non-public schools will result in a more equitable determination of support and in ease of administration").

[3659] Great City Schools comments at 3. *See also* New York DOE comments at 4 (stating that New York already requires information on the number of students eligible for the school lunch program from non-public schools).

[3660] Great City Schools comments at 3. Great City Schools cites 34 C.F.R. § 200.28(a)(2)(i)(B), which is part of Title I of the Improving America's Schools Act of 1994. Under this regulation, private schools that do not have access to the same poverty data that public schools use to count children from low-income families may use comparable data "(1) [c]ollected through alternative means such as a survey" or "(2) [f]rom existing sources such as AFDC or tuition scholarship programs." 34 C.F.R. § 200.28(a)(2)(i)(B)(1) and (2).

example, Great City Schools states that non-public schools may match children's home addresses with the home addresses of individuals on the Aid to Families with Dependent Children (AFDC) rolls, or they may conduct a survey of the income levels of their students' families to determine eligibility for the school lunch program.[3661] Great City Schools emphasizes that non-public schools must be required to use actual counts of low-income children and should not be permitted to approximate the percentage of low-income children using the zip codes of individual children's residences or the poverty level of the surrounding public school district. According to Great City Schools, allowing the use of those latter methods may overcount eligible students.[3662] EDLINC suggests, however, that if it draws at least 60 percent of its students from the surrounding public school district, a non-public school should be permitted to use the same discount as the school district.[3663] Great City Schools responds that EDLINC's proposal "inherently overstates virtually every private school's low income rate and allows such private schools to qualify and receive an unjustifiably high discount from the universal service fund."[3664]

327. AFT also supports the use of federally approved proxy methods to determine a school lunch count for schools that do not participate in the national school lunch program.[3665] In addition, AFT supports the use of those same proxy methods for schools that do participate

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[3661] Great City Schools comments at 3.

[3662] Great City Schools comments at 4 (stating that "private school exclusionary criteria and costs . . . should disqualify such an entity from using the entire zone or area's overall poverty rate as an alternative to an actual count of low-income children"). *But see* EDLINC comments at 13 (stating that "another simple proxy could include an examination of family income by census data, by either county school district, library service area, or zip code to identify a count that mirrors schools lunch data").

[3663] EDLINC comments at 14.

[3664] Great City Schools reply comments at 4.

[3665] AFT comments at 3.

in the school lunch program, but in which students undersubscribe to the program, producing an inaccurate count of eligible students. AFT states that such schools include "some high schools, rural schools, [and] urban schools with highly transient populations."[3666] Advantages of using federally approved proxy methods, according to AFT, include the fact that they are contained in an existing statute and are the product of a negotiated rulemaking proceeding in which schools participated, as well as the fact that schools already use the models.[3667] EDLINC suggests that, to address the high school undercounting problem, public schools be permitted to determine high school free or reduced price lunch eligibility by using elementary school data, such as sibling count or "feeder pattern" counts.[3668] AFT advises, however, that "expanding the use of proxies beyond those that have already been adopted could unnecessarily entangle the FCC in endless review and approval processes of many, less appropriate proxy schemes."[3669]

328. Some commenters suggest alternative approaches to determining a school's level of economic disadvantage.[3670] GTE, for example, asserts that the universal service administrator use Census Bureau data to determine the underlying economic wealth of the geographic area served by a school.[3671] GTE states that "[t]his source has the advantage of

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[3666] AFT comments at 3. *See also* EDLINC comments at 12 (stating that "high school students have been historically undercounted and there may also be undercounting of transient populations").

[3667] AFT comments at 4.

[3668] EDLINC comments at 13.

[3669] AFT comments at 4. *See also* AFT reply comments at 2 (noting that the Food Research and Action Council has developed software, available at a cost of less than $5000.00, that allows states and localities to calculate the poverty count that is the basis for national school lunch eligibility).

[3670] *See, e.g.,* CEDR comments at 11-17; GTE comments at 106-107.

[3671] GTE comments at 106.

being readily available from an expert government agency, and requires only minimal, one-time activity by the school . . . -- identification of the geographic areas used by the Census Bureau that are included within the school's serving area, based upon information provided by the fund administrator."[3672] CEDR suggests using a formula that takes into account value of owner-occupied housing or median household income, and population density, to determine the applicable discount for each school district in the country.[3673] The discount rate would then be applied to a "median national benchmark price for each telecommunications service existing in a competitive environment."[3674]

329. Libraries. While some commenters agree with the Joint Board's recommendation that eligibility for the national school lunch program may provide an accurate measure of a library's level of economic disadvantage,[3675] many commenters representing the library community disagree with that premise.[3676] ALA, for example, noting that the Act does not require that the same measure be used for schools and libraries, states that libraries may not have ready access to information that would allow them to coordinate their service areas with the applicable school district lunch data. ALA also notes that library service areas and school districts often are not identical, and further notes that whether that is

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[3672] GTE comments at 106-107.

[3673] CEDR comments at 15.

[3674] CEDR comments at 14.

[3675] *See, e.g.*, Alliance for Distance Education comments at 2; NCTA comments at 20; New York Public Library comments at 2.

[3676] *See, e.g.*, ALA comments at 3-5; Brooklyn Public Library comments at 8; Colorado LEHTC comments at 2; Great City Schools comments at 4; Illinois State Library comments at 1; New York DOE comments at 4-5; NCLIS comments at 9-10; North Dakota State Library comments at 1; Pennsylvania Library Ass'n comments at 1; Seattle comments at 3; Washington Library comments at 3-5; Washington UTC comments at 8.

the case varies greatly from state to state.[3677] ALA and Brooklyn Public Library note that many libraries already use poverty level data for other purposes.[3678] ALA suggests, therefore, using the poverty rate, based on U.S.Census Bureau data, of those in a library's service area to determine libraries' levels of economic disadvantage.[3679] Specifically, ALA proposes requiring libraries to determine their levels of economic disadvantage by measuring the percentage of residents at or below the poverty line within either a one mile radius[3680] or a two-mile radius[3681] of a public library branch or facility.

[3677] ALA comments at 4. *See also* Colorado LEHTC comments at 2 (noting that use of the national school lunch program "will be difficult for libraries to implement due to overlapping jurisdictions"); NCLIS comments at 10 (stating that "[w]hile the national school lunch program reflects the level of economic disadvantage for children enrolled in school as students, there appears to be little evidence that such a community wealth measurement model can be applied to those larger community segments that are served by public libraries"); Washington Library comments at 3 (noting that "many libraries of the state cover wide geographic areas which include several school districts within each library service area and that there is no clear correlation of a school district to a library service outlet").

[3678] *See* ALA comments at 5; Brooklyn Public Library comments at 8.

[3679] ALA reply comments at 3-4. *See also* Brooklyn Public Library comments at 8 (supporting use of poverty data); New York DOE comments at 5 (same); North Dakota State Library comments at 1 (same). *Cf.* Great City Schools comments at 4 (stating that "[p]ublic libraries serve all residents of a jurisdictional area without exclusionary criteria or fees, and therefore might legitimately use the entire jurisdiction's composite poverty rate or combined school zone poverty rates").

[3680] *See* ALA reply comments at 5; ALA March 17 *ex parte* at Att. 2. *See also* Letter from Andrew Magpantay, ALA, to Mark Nadel, Common Carrier Bureau, dated April 25, 1997 at 2 (ALA April 25 *ex parte*) (*citing* E. Susan Palmer, *The Effect of Distance on Public Library Use: A Literature Survey* LIBRARY RESEARCH, Winter 1981, at 317, for the 1911 and 1943 historical precedent cited for use of a one-mile radius); Letter from Nancy Bolt, Colorado Department of Education, to Mark Nadel, Common Carrier Bureau, dated March 27, 1997 at 2 (Colorado Department of Education March 27 *ex parte*).

[3681] Letter from Andrew Magpantay, ALA, to Irene Flannery, Common Carrier Bureau, dated May 1, 1997 at 2-3 (ALA May 1 *ex parte*).

330. According to Colorado Department of Education, using a one-mile radius has several advantages: "a) precise service area boundaries do not exist for every public library outlet in the U.S.; b) in the absence of such boundaries and in the interest of fairness, some standard geographic boundary must be selected; and c) because studies of public library use have found consistently that residential proximity to a public library outlet is a major predictor of its use."[3682] Colorado Department of Education also asserts that calculating poverty data for that one-mile radius is possible using geographic information systems (GIS) software.[3683] According to ALA, Florida State University, which performed the analysis underlying the libraries matrix submitted by ALA, will calculate the one-mile radius poverty data for all public library outlets in the United States, and ALA will ensure that the information is readily available to all public libraries.[3684]

331. Colorado Department of Education recommends that, to be consistent with eligibility standards under the national school lunch program, the poverty-based discount for libraries should be based on 185 percent of the poverty level.[3685] ALA notes, however, that applying the distribution of universal service discounts contained in the Joint Board's proposed discount matrix to a libraries discount matrix "should obviate the need for recalculating residential poverty data to set up library universal service discount distributions based on residents within 185% of the poverty level."[3686]

332. Some commenters provide additional alternatives to use of the national school

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[3682] Letter from Nancy Bolt, Colorado Department of Education, to Mark Nadel, Common Carrier Bureau, dated March 28, 1997 at 2 (Colorado Department of Education March 28 *ex parte*).

[3683] Colorado Department of Education March 28 *ex parte* at 2.

[3684] ALA April 4 *ex parte* at 2-3.

[3685] Colorado Department of Education March 28 *ex parte* at 2.

[3686] ALA April 4 *ex parte* at 2.

lunch program to determine libraries' levels of economic disadvantage.[3687] Colorado LEHTC "recommend[s] using the same income threshold as the [national school lunch program], but broadening the scope to all households in a library service area, not a school district."[3688] Seattle suggests aggregating the discounts of the three public schools closest to a library, and also suggests considering any unusual population characteristics, such as a large senior citizen population, when calculating a library's level of economic disadvantage.[3689] Pennsylvania Library Ass'n recommends using statistics that "determine the per capita market value in each community" to determine libraries' level of economic disadvantage.[3690]

333. Some commenters support allowing library systems to compute discounts on an individual branch basis or to compute an average discount.[3691] ALA, for example, states that a library system may have a branch in an extremely impoverished area, but the rest of the system's service area may be relatively wealthy. The system's overall poverty rate may not, therefore, adequately reflect conditions for the impoverished branch. "In such a case, ALA recommends that library systems be allowed to report each branch service area separately and allocate the discounts accordingly."[3692] Washington State Library notes that such an approach would be consistent with the Joint Board's recommendation regarding computation of

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[3687] *See, e.g.*, Colorado LEHTC comments at 2; Pennsylvania Library Ass'n comments at 1; Seattle comments at 3.

[3688] Colorado LEHTC comments at 2 .

[3689] Seattle comments at 3.

[3690] Pennsylvania Library Ass'n comments at 1. *See also* Mississippi comments at 5 (supporting the use of per-capita income to determine libraries' level of economic disadvantage).

[3691] *See, e.g.*, ALA comments at 9; Brooklyn Public Library comments at 8; Washington Library comments at 5.

[3692] ALA comments at 9.

discounts by school districts.[3693]

334. Additional Considerations. EDLINC suggests that the Commission establish a "hardship appeals process," through which a school or library could apply for a greater discount. This process would be limited to schools and libraries in great need and that did not, in their own estimation, receive an adequate discount. Under EDLINC's proposal, the maximum discount would remain at 90 percent.[3694] AFT, on the other hand, asserts that establishing a hardship appeals process at this time would raise numerous problems, including additional administrative burden and possible circumvention of the discount mechanism.[3695] AFT suggests that the Commission defer any decision to establish a hardship appeals process until after the discount mechanism has been implemented and a "national evaluation" has been completed.[3696]

335. Some commenters oppose the Joint Board's recommendation that the Commission -- rather than the states -- dictate a schedule for providing different levels of discounts to schools and libraries based on economic disadvantage.[3697] Cincinnati Bell, for example, contends that decisions regarding the level of discounts and how they are calculated should be left to the states. "A federal program that mandates specific discounts down to the individual school level cannot possibly lead to an efficient distribution of funds because of the

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[3693] Washington Library comments at 4-5 (*citing* Recommended Decision, 12 FCC Rcd at 375).

[3694] EDLINC comments at 15.

[3695] AFT comments at 4-5. *See also* Great City Schools reply comments at 5 (stating that "a hardship appeal option will generate thousands of requests for special consideration based on factors other that [sic] actual low-income counts or high cost status as allowed in the Act").

[3696] AFT comments at 5.

[3697] *See, e.g.,* Cincinnati Bell comments at 16; CSE comments at 12; Delaware PSC comments at 1-2, 4-6.

vast differences between schools and education funding programs across the nation."[3698] CSE maintains that universal service support should be available only to the schools and libraries in greatest need, and should not be available for "schools serving the wealthy."[3699] Delaware PSC is concerned that it will become a "net loser" under the recommended schools and libraries discount structure because it is likely to contribute more money than it will receive.[3700]

336. Finally, some commenters address additional issues related to the issue of how the Commission should determine a school's or library's level of economic disadvantage.[3701] Ameritech, for example, asserts that the universal service administrator should calculate the discounts for all eligible schools and libraries and post the information on the same website on which the RFPs are published.[3702] Ohio DOE urges the Commission to ensure that the schools and libraries discount program does not widen the existing disparity between economically disadvantaged schools and their more affluent counterparts. Ohio DOE recommends, therefore, that a "trust fund or other similar mechanism" be established to set aside funding for economically disadvantaged schools and to give such schools additional time to acquire the technical assistance necessary to implement a program eligible for universal service support.[3703]

e. Cap and Trigger

[3698] Cincinnati Bell comments at 16.

[3699] CSE comments at 12.

[3700] Delaware PSC comments at 1-2, 4-6.

[3701] *See, e.g.*, Ameritech comments at 21; Ohio DOE comments at 6.

[3702] Ameritech comments at 21.

[3703] Ohio DOE comments at 6.

(1) Cap Level

337. Numerous commenters address the $2.25 billion annual cap on schools and libraries universal service support recommended by the Joint Board.[3704] Washington UTC, for example, "supports the Joint Board adoption of an annual cap on schools and library support, set at a fiscally prudent level,"[3705] while Great City Schools states that the $2.25 billion annual cap is "reasonable and defensible."[3706] While generally supporting the concept of an annual cap, AT&T and several other commenters assert that the Joint Board's recommended cap is too high and should be reduced.[3707] Bell Atlantic and WorldCom characterize the recommended cap as "excessive,"[3708] while Ad Hoc contends that "the establishment of a cap does not fully address the fiscal concerns raised by the Joint Board's proposal."[3709] California PUC fears that the estimated cost of providing discounts to schools and libraries may be higher than the $2.25 billion cap and doubts that the funding requirements for schools and

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[3704] *See, e.g.,* Ad Hoc comments at 31-32; AT&T comments at 21; Bell Atlantic comments at 21; Citizens Utilities comments at 17; CSE comments at 11-12; MCI comments at 17-18; NYNEX comments at 39-40; TCA comments at 8; Washington UTC comments at 5; WorldCom comments at 27; AFT reply comments at 4; AirTouch reply comments at 30-31; ALA reply comments at 7; EDLINC reply comments at iv, 17; Great City Schools reply comments at 2.

[3705] Washington UTC comments at 5.

[3706] Great City Schools reply comments at 2.

[3707] *See, e.g.,* Ad Hoc comments at 31-32; AT&T comments at 21; Bell Atlantic comments at 21; Citizens Utilities comments at 17; MCI comments at 17-18; WorldCom comments at 27.

[3708] Bell Atlantic comments at 21; WorldCom comments at 27. *See also* Ameritech reply comments at 4-5 (stating that size of cap is inappropriate); SBC reply comments at 19 (arguing that size of fund "will place an undue burden on consumers").

[3709] Ad Hoc comments at 30.

libraries will be predictable or sustainable.[3710] NYNEX asserts that the $2.25 billion figure far exceeds what will be necessary to fund the eligible services, is unwieldy, and will significantly burden both carriers and consumers.[3711] NYNEX recommends instead that the cap be set initially at $1.5 billion, with a goal of achieving the McKinsey full classroom model by the year 2005, and that the cap be reevaluated in 10 years.[3712] NYNEX also asserts that undisbursed funds in any given year should not be carried over to the next year because such a carry-over provision "is likely to make the fund increasingly burdensome as time goes on."[3713] ALA, however, states that "[b]arring carryover would create artificial deadlines and incentives to make hasty commitments."[3714] If the cap exceeds demand and there is a substantial amount of carryover each year, ALA recognizes that universal service support mechanisms may become unmanageable. ALA suggests that the Commission revisit the size of universal service support mechanisms at the 2001 review or, as an alternative, suggests that the Commission impose a reasonable cap on either the amount of carryover permitted each year or a limit on how long carryover funds remain available for use.[3715]

338. Citizens Utilities also contends that the recommended cap will "become the funding floor or target figure that will be pursued by potential recipients" and will "become

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[3710] California PUC comments at 17-18.

[3711] NYNEX comments at 38.

[3712] NYNEX comments at 39. *See also* AirTouch reply comments at 30-31 (supporting NYNEX's position).

[3713] NYNEX comments at 39-40.

[3714] ALA reply comments at 7.

[3715] ALA reply comments at 7 (suggesting a cap on carryover funds of three times the annual $2.25 billion cap or a time limit of two years).

the dollar value of a politically untouchable environment."[3716] According to Citizens Utilities, lowering the cap will ensure that universal service funds are targeted to the neediest schools and libraries in high cost areas and will encourage states to fund their own schools and libraries discount programs.[3717] Ameritech argues that if the cap is not reduced, it should be divided into two components: one cap for telecommunications services and another cap for non-telecommunications services such as internal connections and Internet access. Ameritech states that "[t]his will guarantee that the subsidization of the usage of non-telecommunications products and services for certain schools will not unfairly deprive other schools of the ability to receive an appropriate subsidy for their use of telecommunications services."[3718] In addition, Ameritech recommends that the cap for non-telecommunications products and services be reduced over time because demand for internal connections "will peak initially and then decline over time."[3719]

339. Other commenters oppose proposals to lower the recommended $2.25 billion annual cap and to prohibit carry-over of undisbursed funds.[3720] EDLINC contends that there is general agreement that the costs calculated in the McKinsey Report are accurate and that rolling over of undisbursed funds may be particularly important in the early years of the discount program because many schools may not be ready to participate at the outset.[3721] NTIA adds that "[t]here is no track record for any universal service support fund for schools

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[3716] Citizens Utilities comments at 16-17.

[3717] Citizens Utilities comments at 17.

[3718] Ameritech reply comments at 5.

[3719] Ameritech reply comments at 5.

[3720] *See, e.g.,* EDLINC reply comments at 17-18; NTIA reply comments at 27.

[3721] EDLINC reply comments at 17.

and libraries, so claims that the funding level has been `set too high' have no basis in fact."[3722] New York Public Library asserts that not only should the recommended cap not be lowered, the size of universal service support mechanisms should be increased. According to New York Public Library, "the size of the universal service fund outlined in the Joint Board proposal is too small to meet adequately the needs of schools and libraries nationwide, and it recommends that strong consideration should be given to increasing the size of the fund."[3723] TCA, on the other hand, maintains that a cap is not in the best interest of schools and libraries because it is not predictable,[3724] while Time Warner asserts it would be premature to establish a cap without first adopting a working funding mechanism.[3725]

(2) Operation of Cap and Trigger

340. Several commenters seek clarification regarding how disbursement of the schools and libraries fund would occur under the proposed trigger mechanism and rules of priority.[3726] RTC, for example, asserts that "[u]nless some method is found whereby all school and library service requests are cumulated, prioritized and allocated prior to the beginning of the year, it is apparent that a given recipient will have no practical means of determining whether the discount promised by the matrix will actually be available and hence

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[3722] NTIA reply comments at 27.

[3723] New York Public Library comments at 2. *Cf.* AFT reply comments at 4 (stating that, at the time of the universal service review, adjustments to the size of universal service support mechanisms, including increases, could be considered).

[3724] TCA comments at 8.

[3725] Time Warner reply comments at 22.

[3726] *See, e.g.,* Ad Hoc comments at 31-32; New York DOE comments at 2; PacTel comments at 53; RTC comments at 39-40; Seattle comments at 2; Washington Library comments at 5.

will not be able to determine whether its telecommunications bill will be within its budget."[3727] Washington Library expresses its concern that, under the rules of priority that operate when the $2 billion trigger amount is reached, libraries will be unsure whether funding will be available by the end of any given year and whether they will be guaranteed funding from one year to the next.[3728] Ad Hoc maintains that the recommended cap does not address important issues such as how the first $2 billion will be rationed among eligible schools and libraries and "whether schools and libraries will have a future entitlement to the recommended discounts once the cap is exceeded."[3729] NTIA contends that the recommended $2 billion trigger is set too high because the most economically disadvantaged schools and libraries represent a significant percentage of the total number of eligible schools and libraries and because they may have less access to information regarding the discount program and, consequently be less able than their more affluent counterparts to take advantage of the discounts quickly.[3730]

341. NTIA recommends, therefore, that the trigger be lowered from $2 billion to $1.5 billion in order to address more effectively the needs of the most economically disadvantaged schools and libraries.[3731] RTC suggests that discounts in the first year of the program should be limited to telecommunications services, with internal connections and Internet access phased in thereafter.[3732] PacTel asserts that a first come, first served approach

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[3727] RTC comments at 39-40.

[3728] Washington Library comments at 5.

[3729] Ad Hoc comments at 31.

[3730] NTIA reply comments at 28-29.

[3731] NTIA reply comments at 28-29. *See also* Great City Schools reply comments at 5 (stating that "the reservation for the most disadvantaged schools, at least in the first few years of Fund operation, [should] be expanded from the 10% Joint Board recommendation to a 25% to 35% reservation").

[3732] RTC comments at 40.

should be used in the first year of the program, while top priority should be given to economically disadvantaged schools and libraries beginning in the second year. PacTel maintains that this approach will balance the needs of the most technologically advanced schools and libraries that will be ready to participate in year one against the needs of the poorest and least technologically advanced schools and libraries that may not be ready to participate the first year.[3733] Ad Hoc contends that first priority should be given to economically disadvantaged schools and libraries, as well as those located in high cost areas.[3734] New York DOE concludes that "[s]ome accommodation should be made in each subsequent year's allocation to ensure that priority is given to institutions that did not receive discounts in previous years."[3735] Seattle asserts that some limitation should be imposed on the scope of services to be funded when the cap is almost reached, so that the maximum number of schools and libraries can receive some funding.[3736] BANX proposes establishing a cap on funds flowing to each state to "mitigate concerns of states regarding equitable distribution."[3737]

342. Finally, AT&T recommends that the Commission establish a "per-institution cap" in addition to the overall cap on schools and libraries spending.[3738] AT&T maintains that

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[3733] PacTel comments at 53.

[3734] Ad Hoc comments at 32.

[3735] New York DOE comments at 2.

[3736] Seattle comments at 2.

[3737] BANX reply comments at 23. *See also* Alliance for Public Technology comments at 3 (supporting establishment of a per-state cap).

[3738] AT&T comments at 21. *See also* BANX reply comments at 23 (stating that a per-institution cap "would help forestall a rush by schools and libraries to take advantage of the program before the overall annual cap is reached, and it would minimize the provider's need to engage in unrealistic pricing activities and staffing demand"); Georgia PSC reply comments at 27 (stating that "without a per-institution cap, the system would confer an arbitrary advantage on institutions that were better organized or those that simply acted earlier in the

a per-institution cap will ensure the equitable distribution of universal service funds. Without such a cap, AT&T contends that schools and libraries that are better organized or ready to apply for support early in the year may have an "arbitrary advantage" over other eligible institutions and may rapidly deplete the fund. AT&T also recommends that the per-institution cap vary according to factors such as the number of students served or the size of the discount to which an institution is entitled and that schools and libraries be required to obtain certification of their eligibility from the universal service administrator.[3739]

343. Other commenters, however, oppose the imposition of a per-institution cap.[3740] EDLINC contends that the overall $ 2.25 billion cap will be sufficient to control the cost of the discount program. EDLINC concedes that some schools and libraries will be better prepared to take advantage of the discounts right away and, without a per-institution cap, may appear to receive a disproportionate share of the benefits in the first couple of years. EDLINC contends, however, that "in time all schools will have the opportunity to install their networks, determine the level of service they need and obtain their fair share of discounts."[3741] Colorado LEHTC adds that "capping the amount each entity may utilize from the fund is arbitrary."[3742]

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funding year"); WorldCom reply comments at 15 (stating that "AT&T's proposal to require a per-institution cap makes eminent sense as a means of assuring that all schools and libraries have a realistic opportunity to receive adequate funding").

[3739] AT&T comments at 21.

[3740] *See, e.g.,* Colorado LEHTC reply comments at 5; EDLINC reply comments at 18-19.

[3741] EDLINC reply comments at 18-19.

[3742] Colorado LEHTC reply comments at 5. *Cf.* Time Warner reply comments at 22 (opposing the imposition of a per-institution cap because "[i]t is virtually impossible to predict the requisite amount needed for schools and libraries before the fund is established").

f. Existing Contracts

344. Some commenters assert that the new universal service discounts should apply to existing special rates.[3743] EDLINC, for example, maintains that a school or library should not be expected to abandon negotiated contract rates to obtain discounted rates based on prevailing pre-discount rates; instead, schools and libraries should be able to obtain the larger discounts that would result from basing the discounted rate on the negotiated contract rate."[3744] Agreeing, Minnesota Coalition states that "existing discount arrangements are in the public interest and should not be retroactively disqualified by newly established discount arrangements."[3745] Minnesota Coalition adds that existing discount arrangements should be presumed to be eligible for universal service funding because most such arrangements were established through competitive bidding or received close scrutiny by state agencies.[3746] PacTel asserts that schools and libraries should be permitted to retain existing contracts, regardless of whether they were obtained through a competitive bidding process. In addition to the time and expense associated with renegotiating existing contracts and opening them to competitive bidding, PacTel contends that "[t]here is no guarantee that a new bidding process would produce rates that are even as low as the ones currently in effect, particularly if the current rate is the product of a long-term agreement that has protected the schools and

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[3743] *See, e.g.,* EDLINC comments at 18-19; Illinois Board of Education comments at 3-4; Minnesota Coalition comments at 30; Ameritech reply comments at 708; BANX reply comments at 20; PacTel reply comments at 2, 18, 28-29; SBC reply comments at 22.

[3744] EDLINC comments at 19. *See also* South Carolina comments at 6 ("restricting eligibility to new contracts for services penalizes those who have already embraced these principles and moved forward expeditiously to provide widespread Information Highway access").

[3745] Minnesota Coalition comments at 30.

[3746] Minnesota Coalition comments at 30. *See also* BANX reply comments at 20 (stating that many existing school and library contracts "have already been subjected to a competitive bidding or best rate process").

libraries from rate increases."[3747] SBC adds that the Commission lacks the authority to void or insert new terms in existing contracts.[3748] While supporting the competitive bidding concept, Ameritech adds that the administrative strains of reopening all existing contract arrangements to competitive bidding would be "monumental."[3749] Ameritech also asserts that schools and libraries ultimately will have the incentive to submit their requirements to a bid process to determine whether they can obtain a more favorable price.[3750] BellSouth, on the other hand, asserts that the states should determine whether state-mandated special rates remain in effect.[3751]

345. Small Cable suggests that the Commission establish a rebuttable presumption in favor of existing contracts between schools and libraries and their service providers, along with rules to ensure that existing contracts are efficient and reasonably priced.[3752] Small Cable states that schools, libraries, and service providers should be required to comply with the bona fide request requirement that descriptions of services be submitted to the universal service administrator for posting on a website. Small Cable suggests that, for a specified period of time, perhaps 60 days from the date of posting, interested parties could submit objections to the existing contract based on assertions of unreasonable prices, improper cross-subsidization, or anti-competitive conduct by the parties. According to Small Cable, the

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[3747] PacTel reply comments at 28.

[3748] SBC reply comments at 22.

[3749] Ameritech reply comments at 7. *See also* BANX reply comments at 20 (stating that requiring schools and libraries to renegotiate existing contracts "would create chaos in the marketplace due to the number of bids that would have to be entertained simultaneously").

[3750] Ameritech reply comments at 8.

[3751] BellSouth comments at 38.

[3752] Small Cable reply comments at 8-10.

administrator would determine, subject to appeal to the Commission, whether services covered by the existing contract should be eligible for universal service support, with a presumption in favor of the existing contract's eligibility. Small Cable contends that such a process would provide a level of scrutiny for existing contracts to prevent collusive or unfair arrangements between schools, libraries, and their service providers.[3753]

346. Other commenters assert that the Commission should ensure that schools and libraries benefit from the new universal service discounts. Community Colleges, for example, states that the Commission should adopt a "fresh look requirement" that would obligate carriers that have existing service contracts with schools and libraries to participate in a competitive bidding process. Community Colleges contends that such a requirement would be consistent with section 254(h)(2)'s requirement that the Commission establish competitively neutral rules.[3754] New York DOE supports the "establishment of a provision that can excuse schools and libraries from current contracts if it can be demonstrated that contracts would not permit the institutions to receive lower rates under the discounted programs."[3755] New York DOE reasons that institutions that negotiated long-term contracts prior to the passage of the 1996 Act should not be penalized.[3756] PacTel adds, however, that mandating a "fresh look" process may have a confiscatory effect on service providers that have not yet recovered costs that were to be amortized over the length of the contract, and recommends that schools and libraries electing to re-bid an existing contract be required to reimburse the original service provider for any out-of-pocket expenses that the provider has not yet recovered.[3757]

[3753] Small Cable reply comments at 8-10.

[3754] Community Colleges comments at 18.

[3755] New York DOE comments at 10.

[3756] New York DOE comments at 10.

[3757] PacTel reply comments at 29.

347. Some commenters assert that universal service discounts should not be applied to existing contract rates.[3758] Cox, for example, states that applying the discounts to existing contract rates would not be in the public interest because it would confer an inappropriate advantage upon incumbent LECs because they were most likely the only providers previously in a position to provide service to schools and libraries.[3759] ALTS supports requiring all schools and libraries with existing contracts that were not entered into pursuant to competitive bidding to participate in the competitive bidding process in order to receive section 254(h) discounts. ALTS states that "[t]he entire purpose of providing efficient low cost services to schools and libraries would be defeated if carriers not otherwise found to be eligible under [s]ection 214(e) were prevented from bidding on individual contracts for schools and libraries."[3760]

g. Interstate and Intrastate Discounts

348. Some commenters, particularly schools and libraries groups, support the Joint Board's recommendations that the Commission provide federal universal service support to fund intrastate discounts and that states be required to establish intrastate discounts at least equal to the discounts on interstate services in order for their schools and libraries to be eligible to receive federal universal service support.[3761] New York Public Library, for example, asserts that the Joint Board's recommendations provide "a very strong incentive for states to implement significantly reduced intrastate telecommunications rates for schools and

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[3758] *See, e.g.,* ALTS comments at 15-16; Cox comments at 12; Teleport comments at 8.

[3759] Cox comments at 12. *See also* Teleport comments at 8 (stating that applying discounts to existing contracts will effectively bar competitors from potentially lucrative markets and force schools and libraries to remain "captives" of the ILEC).

[3760] ALTS comments at 16.

[3761] *See, e.g.,* Brooklyn Public Library comments at 6; EDLINC comments at 5; Great City Schools comments at 2; New York Public Library comments at 2; RTC comments at 38.

libraries as mandated in the Telecommunications Act of 1996."[3762] EDLINC states that the Joint Board's approach "strikes an appropriate balance between federal and state prerogatives."[3763]

349. Other commenters, particularly state public utility commissions and at least one RBOC, state that the determination of state discounts should be left to the states.[3764] SBC, for example, cites section 254(h)(1)(B) as support for the position that only states can set the intrastate discount.[3765] Georgia PSC adds that the Joint Board's recommendation that the Commission grant waivers "does not cure the jurisdictional intrusion upon a State's discretion to make these determinations on its own."[3766] New York DOE states that "[t]he possible loss of state authority and flexibility, and the possible loss of revenues earned within the state, far outweigh any potential gains derived from a centralized, federal administrative oversight."[3767]

[3762] New York Public Library comments at 2.

[3763] EDLINC comments at 5.

[3764] *See, e.g.,* Illinois CC comments at 3; New York DOE comments at 8; Oregon PUC comments at 3; SBC comments at 42; Wyoming PSC comments at 11-12; Georgia PSC reply comments at 26-27; New York DPS reply comments at 1-2.

[3765] SBC comments at 42. *See also* Georgia PSC reply comments at 26 (stating that "[s]ection 254(h)(1)(B) does not authorize the Joint Board or the Commission to condition support for discounted intrastate services upon adoption of the interstate discount schedule").

[3766] Georgia PSC reply comments at 27 n.70 (*citing Louisiana Public Service Commission v. Federal Communications Commission,* 476 U.S. 355 (1986) and 47 U.S.C. § 152(b) for the premise that "[a] State need not attempt to satisfy the Commission's waiver standard (*see* FCC Rule 1.3) in order to exercise authority already solely and exclusively vested with that State by Congress").

[3767] New York DOE comments at 8. *See also* New York DPS reply comments at 2 (opposing requirement that states adopt the federal discount matrix because "[t]o do so would effectively preempt the states' flexibility to design intrastate discount programs that complement current state aid formulas, legislative programs, private

New York DOE, therefore, supports allowing the states to retain the intrastate portion of revenues that would be contributed to universal service support mechanisms and maintain responsibility for distributing those funds to eligible schools and libraries within their jurisdiction.[3768] Wyoming PSC states that it is solely within the competence of the states to determine discounts on intrastate services and that one of the strengths of the Act is that it relies on the states for their local expertise.[3769] Wyoming PSC also asserts that "[t]he Act intends to create a federal/state partnership and does not intend to turn states into clients of the federal government."[3770]

D. Restrictions Imposed On Schools and Libraries

1. Comments

350. Eligibility. Some commenters assert that additional entities should be eligible for the schools and libraries universal service discount program.[3771] Illinois Board of Education contends that otherwise ineligible members of consortia, such as institutions of higher education, should be entitled to receive universal service discounts on the portion of services they provide to eligible students. Illinois Board of Education cites the example of

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sector efforts, and the needs of each state's schools and libraries").

[3768] New York DOE comments at 8.

[3769] Wyoming PSC comments at 11-12. *See also* Oregon PUC comments at 3 (stating that "[i]t is entirely within the jurisdiction of the states to determine the discounts that are appropriate and necessary for intrastate services").

[3770] Wyoming PSC comments at 11-12.

[3771] *See, e.g.,* APTS comments at 5-6; Community Colleges comments at 5-6; Illinois Board of Education comments at 10-11; New York DOE comments at 9; People For comments at 10-11; Urban League comments at 5-6.

colleges that provide high-speed, high-bandwidth video services to elementary and secondary students and argues that "[a]llowing these institutions targeted discounts to provide services to eligible students will encourage even more partnerships to flourish."[3772] Community Colleges maintains that to the extent they teach programs focusing on basic educational skills, such as general equivalency diploma (GED) preparation, community colleges should be eligible to receive universal service support.[3773] Community Colleges also asks the Commission to permit community college libraries to receive universal service support to the extent they perform the same functions as a public library.[3774] People For and the Urban League support including a variety of community institutions and organizations, such as community computing and media centers and local Urban Leagues, among the entities eligible to receive schools and libraries discounts.[3775] Urban League asserts that "an access policy for low-income communities solely based on access via schools and libraries will adequately serve some communities while leaving out many other communities."[3776]

351. MassLibrary and APTS assert that a consortium including eligible schools and libraries should itself be eligible to receive universal service discounts.[3777] MassLibrary states that in Massachusetts, automated library resource sharing networks such as MassLibrary

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[3772] Illinois Board of Education comments at 10-11.

[3773] Community Colleges comments at 5-6.

[3774] Community Colleges comments at 11.

[3775] People For comments at 10-11; Urban League comments at 5-6. *See also* Benton reply comments at 5-6 (proposing that "the Commission recognize the benefits of lowering telecommunications operating expenses for community-based organizations such as community computing centers, PEG access centers, nonprofit technical assistance providers, community economic developers, distance learning and library consortia, low-income constituency human services organizations, and the like").

[3776] Urban League comments at 6.

[3777] APTS comments at 5-6; MassLibrary comments at 1-2.

currently order telecommunications services on behalf of their members and such services can only be ordered and paid for by the consortium itself. MassLibrary expresses the concern that the Joint Board's recommendations will require such a system to dismantle in order to permit its school and library members to qualify for universal service support.[3778] Georgia PSC also expresses concern that the consortia provision of the Recommended Decision would not permit the state's telecommunications agency to receive universal service support.[3779] The Information Technology Division of Georgia's Department of Administrative Services (DOAS-IT), which is the state's telecommunications agency, serves as an aggregator for many local governments and their departments, including school districts. According to Georgia PSC, DOAS-IT secures term and volume discounts on telecommunications services for its customers, and if it is not eligible to participate in the schools and libraries discount program, the cost of telecommunications services will increase for members of DOAS-IT.[3780] NASTD adds that the Commission should clarify that state government telecommunications networks that serve as aggregators for eligible schools and libraries are acceptable consortia under section 254(h) and that schools and libraries participating in a statewide public network consortium are eligible to receive universal service support in addition to any other special pricing mechanisms in place as a result of participating in such a consortium.[3781] APTS contends that Congress intended to include distance-learning consortia as entities eligible to receive universal service support and that permitting educational television station licensees to

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[3778] MassLibrary comments at 2. *See also* Georgia Dept. of Administrative Services comments at 2 (stating its concern that "the Commission will inadvertently create rules which force the deaggregation of these volumes, thereby causing not only the cost to schools. libraries, and rural hospitals to rise, but also increasing the cost to state government and its other network and service users").

[3779] Georgia PSC reply comments at 27-29.

[3780] Georgia PSC reply comments at 27-29.

[3781] NASTD ex parte comments (February 12, 1997).

qualify for universal service discounts will carry out that intent.[3782] SBC, however, states that the Act is very clear regarding the entities eligible to receive discounts under section 254(h), and "[t]he Commission has no authority to re-write the legislation by expanding this precise definition."[3783]

352. Some commenters maintain that the Commission should affirmatively encourage eligible schools and libraries to form partnerships with institutions of higher education.[3784] New York DOE recognizes that the Commission cannot include post-secondary and cultural institutions as eligible entities under the schools and libraries provisions, but encourages the Commission to strengthen incentives for the development of consortia by "allow[ing] educational institutions to assume the lead role in network planning and implementation, with associated costs recoverable from the Universal Service Fund."[3785] In addition, Benton urges the Commission to adopt clear language: (1) defining consortia of eligible and ineligible entities and which entities will be eligible for discounts; (2) delineating the potential benefits of participating in consortia; (3) addressing incentives for vendors to offer volume discounts to consortia; and (4) encouraging eligible entities to involve communities in preparing technology plans and their implementation.[3786]

[3782] APTS comments at 5-6 (supporting extension of the definition of eligible entities to include public television stations "for the limited use of closed captioning services for captioning instructional programming to schools and libraries").

[3783] SBC reply comments at 23. *See also* BellSouth comments at 38 (supporting the Joint Board's recommendation that "the Commission adhere to the restrictions embodied in the 1996 Act regarding what entities are entitled to obtain discounts under [s]ection 254(h)(1)(b)").

[3784] *See, e.g.*, New York DOE comments at 9; Vanderbilt reply comments at 5.

[3785] New York DOE comments at 9.

[3786] Benton reply comments at 6-7.

353. Several commenters urge the Commission to address the eligibility of libraries in a manner consistent with the recently enacted Library Services and Technology Act.[3787] ALA, for example, states that the Library Services and Construction Act, which was referenced in section 254(h)(4) and from which the Joint Board developed its definition of library, was repealed and replaced with the Library Services and Technology Act. ALA also states that section 254(h)(4) was amended to reflect the enactment of the Library Services and Technology Act. ALA asserts that the Library Services and Technology Act clarified the definition of library, "and was specifically linked to the Communications Act as the operative definition of libraries within universal service."[3788] Colorado LEHTC states that academic libraries, which are included within the LSTA definition of library, "will have no difficulty in separating their costs of telecommunications services from that of the higher education institution of which they are a part."[3789] NCLIS also notes the enactment of the Library Services and Technology Act and states that the Commission may want to review the National Center for Education Statistics' definition of public libraries in order to define libraries for the purposes of section 254(h).[3790]

[3787] *See, e.g.,* ALA comments at 9-10; EDLINC comments at 6 n.8; NCLIS comments at 11; North Dakota State Library comments at 1.

[3788] ALA comments at 13. *See also* Colorado LEHTC reply comments at 1 (supporting the use of the LSTA definition for libraries and library consortia).

[3789] Colorado LEHTC reply comments at 2.

[3790] NCLIS comments at 11. The definition to which NCLIS refers is as follows:

> A public library is established under state and enabling laws or regulations to serve the residents of a community, district, or region. A public library is an entity that provides at least the following: 1.) an organized collection of printed or other library materials, or a combination thereof; 2.) a paid staff to provide and interpret such materials as required to meet the informational, cultural, recreational, and/or educational needs of a clientele; 3.) an established schedule in which services of the staff are available to clientele; and 4.) the facilities necessary to support such a collection, staff,

354. One commenter addresses the eligibility of private and parochial schools to receive universal service support.[3791] West Virginia Consumer Advocate notes that the Elementary and Secondary Education Act, which provides the definition of elementary and secondary schools for purposes of section 254(h), states that a school's eligibility for universal service support is dependent on whether it is a school under state law.[3792] Because state laws vary regarding whether private and parochial schools are schools under state law, West Virginia Consumer Advocate asks what test should be used to determine whether private or parochial schools are eligible for universal service support under section 254(h). Arguing that the intent of the law was to provide support to as many schools as possible, West Virginia Consumer Advocate asserts that "a presumption should be established that all schools are eligible for the discount under [s]ection 254 of the Act, unless it can be shown that a particular school is not providing elementary and secondary education `as determined under State law.'"[3793]

355. NTIA contends that the Commission should strive to ensure that schools established under tribal authority receive discounted rates under the schools and libraries program.[3794] NTIA notes that the 187 schools funded by the Bureau of Indian Affairs are included within the total number of schools cited by the Joint Board, but that there may also be other schools established by tribes or tribal organizations that should be eligible for

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and schedule.

Id. (*citing* National Center for Educational Statistics E.D. Tabs - Public Libraries in the United States: 1993 at 109 (Sept. 1995)).

[3791] *See* West Virginia Consumer Advocate comments at 1-12.

[3792] West Virginia Consumer Advocate comments at 10.

[3793] West Virginia Consumer Advocate comments at 11-12.

[3794] NTIA reply comments at 26-27.

universal service support.[3795] According to NTIA, "[t]elecommunications technology can help to reduce many of the disparities facing the more than 550 tribes, including geographic isolation and significantly higher rates of unemployment, poverty, and high school droputs."[3796]

356. Several commenters assert that universal service support should specifically be targeted to schools and libraries serving individuals with disabilities.[3797] Universal Service Alliance states that "the Commission should provide universal service support for specialized equipment and additional services when needed by schools and libraries to serve children with disabilities."[3798] Consumer Action argues that universal service support should be provided for hardware, software, and specialized customer premises equipment used by deaf and hard of hearing children.[3799] Consumer Action also contends that rate discounts should be used to enhance access to educational technologies for children with disabilities.[3800]

357. Resale. Some commenters support the Joint Board's recommendation that all

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[3795] NTIA reply comments at 27 n.52.

[3796] NTIA reply comments at 27 (stating that "closer examination by the Commission of universal service policies and general telecommunications regulations, as they affect tribes, is warranted in order to ensure that no community in need is left behind").

[3797] *See, e.g.*, United Cerebral Palsy Ass'n comments at 8-10; Universal Service Alliance comments at 6-7; Consumer Action reply comments at 2-3.

[3798] Universal Service Alliance comments at 6. *See also* United Cerebral Palsy Ass'n comments at 10 (urging the Commission "to ensure that where Federal support mechanisms are established for classrooms and libraries, such support should include provision for telecommunications services which are accessible to children with disabilities").

[3799] Consumer Action reply comments at 2.

[3800] Consumer Action reply comments at 2.

resale of discounted services be prohibited.[3801] Ameritech, for example, states that "[p]ermitting resale would either permit schools or libraries to make a `profit' on these services or would confer the benefit of the discount on otherwise ineligible parties." Other commenters, however, contend that the prohibition on resale should be more narrowly interpreted.[3802] EDLINC suggests that eligible entities be permitted to apply to the Commission or the universal service administrator for waivers of the prohibition on resale if the purchaser of the discounted services is using them for "a clearly defined and segregable educational purpose."[3803] Vermont PSB contends that user fees, such as computer laboratory fees, should be permitted and should not be subject to the prohibition on resale. Vermont PSB also states that, since the Joint Board recommended against providing a 100 percent discount on any services, "[s]chools and libraries should not be prohibited from charging as necessary to recover the remaining undiscounted costs."[3804] Washington SPI emphasizes that restrictions on resale should be defined narrowly enough to permit eligible and ineligible entities to aggregate demand for telecommunications services.[3805]

358. As noted above, numerous commenters support the Joint Board's recommendation to allow schools and libraries to participate in consortia with both eligible and ineligible entities for the purpose of aggregating demand.[3806] AT&T, on the other hand,

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[3801] *See, e.g.*, Ameritech comments at 22; RTC comments at 38; Seattle comments at 2.

[3802] *See, e.g.*, EDLINC comments at 18; Vermont PSB comments at 20; Washington SPI comments at 1.

[3803] EDLINC comments at 18.

[3804] Vermont PSB comments at 20.

[3805] Washington SPI comments at 1.

[3806] *See, e.g.*, ALA comments at 9; Alliance for Community Media comments at 10; BellSouth comments at 39-40; Community Colleges comments at 21; EDLINC comments at 5; Florida Dept. of Management Services comments at 1-2; Georgia Dept. of Administrative Services comments at 2; MassLibrary comments at 1;

asserts that the Commission should limit the permissible range of consortia to include only eligible schools, eligible libraries, and municipalities.[3807] AT&T states that consortia present the risk of abuse of the prohibition on resale, as well as the possibility of significantly increasing enforcement and auditing costs.[3808]

359. Other commenters question aspects of the Joint Board's recommendation regarding consortia and its impact upon the prohibition on resale.[3809] Ameritech and BellSouth oppose the Joint Board's recommendation that carriers be responsible for ensuring that the appropriate discounts are applied to members of consortia because the related administrative costs would likely be reflected in higher costs for services.[3810] USTA asserts that the consortium itself, as a result of its decision to combine eligible and non-eligible entities, is the entity that must be held responsible and liable for certifying the appropriate usage of its members.[3811] MassLibrary asks the Commission to clarify what the Joint Board

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Washington Library comments at 8; Washington UTC comments at 8-9.

[3807] AT&T comments at 22. *See also* SBC reply comments at 23 (stating that AT&T's recommendation that consortia be limited to schools, libraries, and municipalities "has considerable merit").

[3808] AT&T comments at 22-23. *See also* SBC reply comments at 23 (stating that "[w]hile SBC recognizes the public policy benefits of permitting consortia, the Commission should balance these benefits against the administrative costs of enforcing that Act's clear prohibition against resale").

[3809] *See, e.g.,* BellSouth comments at 39-40; MassLibrary comments at 1-2; Washington Library comments at 7-8.

[3810] Ameritech comments at 23; BellSouth comments at 38-39.

[3811] USTA comments at 38. *See also* PacTel comments at 52-53 (stating that "[p]lacing responsibility for this recordkeeping with the schools and libraries themselves is most consistent with the Joint Board's `self-certification' mechanism"); SBC reply comments at 24 (stating that "[m]embers of the consortia are in the best position to manage this process and should be responsible for the proper use of services to ensure that non-eligible institutions are not receiving the benefits of the Act's discount framework").

intended when it stated that schools and libraries could join consortia with other customers "in their community." MassLibrary recommends that the Commission interpret that language to refer to a service area, rather than to a single city or town.[3812] Washington Library asserts that "flexibility in establishing discounts" will encourage the use of consortia. Washington Library notes, for example, that libraries within Washington State will eventually be able to take advantage of a statewide kindergarten through grade 20 (K-20) network, and it contends that libraries in that state need the flexibility to secure services through such a network and other sources.[3813]

360. Bona Fide Request for Educational Purposes. Numerous commenters support the Joint Board's recommendation that schools and libraries be required to comply with several self-certification requirements.[3814] Ameritech maintains that the self-certification requirements will "help to ensure that universal service funds are used efficiently and only for the purposes intended" and "should create no additional burden on the school or library."[3815] Teleport contends that the self-certification requirements will "mitigate any concern that the promise of `free' money to buy attractive new telecommunications services might encourage unnecessary purchases simply because the money appears to be readily available."[3816] New York Public Library characterizes the proposed self-certification process as a "simple, efficient, and effective methodology" that lessens the administrative burden on schools and

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[3812] MassLibrary comments at 1.

[3813] Washington Library comments at 7.

[3814] *See, e.g.*, Ameritech comments at 22-23; Business Software Alliance comments at 3; MCI comments at 17; New York Public Library comments at 2; RTC comments at 38-39; Teleport comments at 10; NCTA reply comments at 15-18.

[3815] Ameritech comments at 23.

[3816] Teleport comments at 10.

libraries.[3817] NCTA asserts that "[t]aken as a whole, these three [self-certification] requirements are the minimum requirements the Commission could adopt to safeguard the public interest in ensuring that only eligible entities receive funding, that resources are not wasted, and that applicable statutory guidelines are followed."[3818]

361. EDLINC maintains that existing procurement procedures should be sufficient to ensure that telecommunications services are ordered by authorized personnel, but also understands the Joint Board's concern with the potential for waste, fraud, and abuse.[3819] EDLINC asserts, therefore, that any certification requirements adopted by the Commission should not be so burdensome as to create disincentives for schools and libraries to order discounted services, nor should such requirements increase institutional costs. EDLINC recommends that the Commission develop a short and simple self-certification form addressing eligibility.[3820]

362. Other commenters contend that the Commission should adopt a certification process simpler than the one recommended by the Joint Board.[3821] Vermont PSB expresses the concern that the self-certification process recommended by the Joint Board may be so administratively burdensome and time-consuming that needy institutions, particularly in rural

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[3817] New York Public Library comments at 2.

[3818] NCTA reply comments at 18.

[3819] EDLINC comments at 16-17.

[3820] EDLINC comments at 17.

[3821] *See, e.g.,* CEDR comments at 17; EDLINC comments at 17; New York DOE comments at 9; Ohio DOE comments at 6; Southern Adirondack Library System comments at 1-2; Vermont PSB comments at 19.

areas, may be discouraged from applying for discounted services.[3822] Vermont PSB recommends, therefore, that "[a] waiver of these various requirements or a streamlined process (akin to IRS Form 1040EZ) for small organizations may strike a reasonable balance."[3823]

363. New York DOE suggests simplifying the self-certification process by just requiring every school and library applying for discounted services to submit its technology plan to its state education agency.[3824] New York DOE asserts that the technology plan would contain all of the self-certifications contained in the Recommended Decision, as well as the priorities of the state's long-range technology plan, and would result in a "comprehensive and consistent planning approach to telecommunications and technology deployment that would have learning and teaching as the focus."[3825] New York DOE states further that "[t]o require a separate set of certifications for these new components of service would create a substantial reporting burden on schools and libraries and it could serve to separate this kind of accountability from those requirements already imposed by state education agencies."[3826]

364. On the other hand, TCI contends that self-certification is "not sufficient to

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[3822] Vermont PSB comments at 19. *See also* Southern Adirondack Library System comments at 1-2 (stating that the recommended self-certification requirements will favor large organizations with grant-writing staff and will "further enlarge an already large, bureaucratic and expensive administrative effort proposed in the Recommended Decision").

[3823] Vermont PSB comments at 19 (defining a small organization as one using less than 10 lines).

[3824] New York DOE comments at 9.

[3825] New York DOE comments at 9.

[3826] New York DOE comments at 9. *See also* Ohio DOE comments at 6 (stating that state education agencies should be the recipients of technology plans because such an approach "would assure accountability and prevent duplication of effort at the federal level, while insuring the state's ability to coordinate the Universal Service initiative with state technology plans").

protect either the amount of resources at stake or the importance of the social goals at risk."[3827] TCI maintains, therefore, that a request will only be considered bona fide if it establishes that the school or library has accounted for connectivity, internal connections, hardware, software, training, overcoming societal and cultural barriers, and ongoing operations support.[3828] TCI also asserts that schools and libraries must be required to submit their plans to a designated state agency for review and approval. According to TCI, "[a]bsent comprehensive and bona fide technology and service plans approved by a state representative or agency, there is grave danger that the substantial investment in educational support would be wasted."[3829] EDLINC, however, asserts that the plan TCI is promoting is identical to the USTA plan that was rejected by the Joint Board and, therefore, warrants no further consideration by the Commission.[3830]

365. Time Warner suggests that, to avoid abuse of the discount program, the Commission should establish guidelines outlining what constitutes "educational purposes" under section 254(h).[3831] EDLINC and AFT, on the other hand, oppose any such efforts. "[3832] AFT suggests that schools and libraries be required to develop their technology plans in accordance with one or more of existing federal education statutes,[3833] while EDLINC asserts

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[3827] TCI comments at 7.

[3828] TCI comments at 7.

[3829] TCI comments at 8.

[3830] EDLINC reply comments at 15.

[3831] Time Warner comments at 35-36 (also stating that the Commission should "seek comment on the scope of the term `for educational purposes'").

[3832] AFT reply comments at 3; EDLINC reply comments at 14.

[3833] AFT reply comments at 3 (*citing* the Improving America's Schools Act; the Goals 2000: Education America Act; the Carl D. Perkins Vocational and Applied Technology Education Act; the School-to-Work Opportunities Act; and the Individuals with Disabilities Education Act).

that "[b]y their very nature as schools and libraries, every activity in which such institutions engage should be presumed to be for an educational purpose."[3834]

366. Auditing. Some commenters address how the Commission should use audits to ensure that schools and libraries comply with the requirements of the Act.[3835] Vanguard supports the Joint Board's recommendation that random audits be used to ensure compliance with Commission rules. Vanguard states further that failure to track adequately the use of universal service funds will substantially increase the size of universal service support mechanisms and may prevent eligible entities from obtaining funding.[3836] TCI asserts that the Joint Board's recommendation should be expanded to require all eligible schools and libraries receiving universal service support to file annual reports, which would be subject to audit, with a designated state agency.[3837] According to TCI, "[i]f such an approach were implemented, the Commission should also send a clear message that it is prepared to invoke its legal authority to fine or otherwise discipline those administrators and institutions which make misrepresentations to the Commission as to the use of the subsidized services."[3838] EDLINC contends, however, that such an annual filing requirement would be "burdensome and unnecessary" because the Joint Board's recommended auditing requirement will be sufficient to address the unlikely occurrence of fraud or abuse.[3839]

367. Annual Carrier Notification Requirement. No parties commenting on the

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[3834] EDLINC reply comments at 14.

[3835] *See, e.g.,* TCI comments at 13; Vanguard comments at 7-8.

[3836] Vanguard comments at 7-8.

[3837] TCI comments at 12-13.

[3838] TCI comments at 13 (footnote omitted).

[3839] EDLINC reply comments at 15.

Recommended Decision address the issue of an annual carrier notification requirement.

E. Funding Mechanisms for Schools and Libraries

1. Comments

368. Separate Funding Mechanisms. Some commenters support the Joint Board's recommendation that the universal service administrator distribute support for schools and libraries from the same source of revenue used to support other universal service purposes under section 254.[3840] Ameritech adds that proper accounting and targeting of the funds would have to be undertaken.[3841] Other commenters assert that the Commission should establish a separate funding mechanism for schools and libraries.[3842] SNET maintains that "[t]he proposed education subsidy is new and its funding should not be commingled with the current implicit and explicit subsidies."[3843] SNET also asserts that the schools and libraries discount program can be more easily evaluated if the funds are kept separately from other universal service funds.[3844]

369. Offset versus Reimbursement. Ameritech states that entities providing services at a discount should be able to receive compensation through either reimbursement or an offset to their universal service obligations. According to Ameritech, however, it would not be competitively neutral to permit entities that do not contribute to universal service support

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[3840] *See, e.g.,* Ameritech comments at 23; New York DOE comments at 9.

[3841] Ameritech comments at 23.

[3842] *See, e.g.,* SNET comments at 6-7; TCA comments at 8; Colorado LEHTC reply comments at 5.

[3843] SNET comments at 6.

[3844] SNET comments at 7.

mechanisms to receive reimbursement for services provided to schools and libraries.[3845] ITI, on the other hand, citing anti-competitive concerns, states that "the Commission cannot establish any reimbursement mechanism for carriers who provide Internet access if non-carriers who provide the same services are excluded from the mechanism."[3846]

370. GTE objects to the Joint Board's recommendation to require schools and libraries to pay only the undiscounted portion of their bill so that service providers receive the balance through either reimbursement or offset from the universal service administrator.[3847] That is, GTE maintains that requiring service providers to modify their customer records and billing systems to reflect partial payment from schools and libraries and partial payment from the universal service administrator could discourage providers from bidding for schools' and libraries' business. GTE suggests instead that service providers be able to collect the entire amount of their bill directly from schools and libraries, leaving the educational institutions to be reimbursed by the administrator; GTE contends that this would not be unduly burdensome for schools and libraries.[3848] EDLINC, however, states that the Joint Board considered and rejected a similar proposal.[3849] EDLINC also asserts that GTE's proposal violates section 254(h) because eligible schools and libraries are entitled to discounts and service providers are entitled to payments from universal service support mechanisms.[3850] Further, EDLINC states that requiring schools and libraries to pay the entire amount of their bills would be unduly burdensome to schools and libraries because they would have to budget for that substantial

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[3845] Ameritech comments at 23-24.

[3846] ITI comments at 6.

[3847] GTE comments at 102-104.

[3848] GTE comments at 103.

[3849] EDLINC reply comments at 15.

[3850] EDLINC reply comments at 15-16.

amount of money and await reimbursement at some much later date.[3851]

F. Access to Advanced Telecommunications and Information Services

1. Comments

371. LCI proposes a definition of "advanced telecommunications services" that would not include the "core" services eligible for high cost support under section 254(c)(1). LCI states that "the Commission should clarify that `advanced telecommunications services' does *not* include voice grade access to the public switched network, DTMF or touch-tone, single-party service, access to emergency service, access to operator service, access to interexchange service and access to directory assistance."[3852]

372. New York DOE disagrees with the Joint Board's assertion that the schools' and libraries' discount program will automatically stimulate demand for more advanced services.[3853] To the contrary, New York DOE asserts that the discount program may simply make more affordable the same services that service providers already provide in a particular region and may not result in broader access to advanced services. New York DOE maintains that Congress's intent in enacting section 254 was to facilitate schools' and libraries' use of technologies requiring expanded bandwidth and to increase technological sophistication, but that the Joint Board's recommendation contains no assurances that these developments will happen. According to New York DOE, "[a]t a minimum, the FCC should be expediting the development of a collaborative proceeding with consumers and providers to identify competitively neutral strategies for promoting access to and use of advanced

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[3851] EDLINC reply comments at 16.

[3852] LCI comments at 10.

[3853] New York DOE comments at 10.

telecommunications services for schools and libraries."[3854]

G. Sections 706 and 708 of the 1996 Act

1. Comments

373. California Dept. of Consumer Affairs and GI expect that section 706 will be addressed in a separate proceeding but nonetheless comment on its merits.[3855] GI states that the Commission has the opportunity to advance simultaneously the goals of sections 254 and 706 by making Internet access and advanced services eligible for universal service support.[3856] California Dept. of Consumer Affairs urges both the Commission and state commissions to implement section 706 quickly, asserting that schools and libraries will not reap the full benefits of the section 254(h) discount mechanism until section 706 is implemented.[3857] California Dept. of Consumer Affairs also contends that section 706's definition of advanced telecommunications capability "lends support to those interested parties who argue that the Commission should not allow universal service funds to be used to fund wiring in schools because doing so favors wireline technology over wireless technology."[3858] Further, California Dept. of Consumer Affairs states that section 706 does not contain an additional funding mechanism for providing advanced telecommunications services to schools and libraries.[3859]

[3854] New York DOE comments at 10.

[3855] California Dept. of Consumer Affairs reply comments at 13-15; GI reply comments at 3-4.

[3856] GI reply comments at 3-4.

[3857] California Dept. of Consumer Affairs reply comments at 14.

[3858] California Dept. of Consumer Affairs reply comments at 15.

[3859] California Dept. of Consumer Affairs reply comments at 15.

374. Alliance for Public Technology and Universal Service Alliance criticize the Joint Board's recommendation that section 706 be considered in a separate proceeding.[3860] According to Alliance for Public Technology, "[t]he Joint Board's decision to isolate [s]ection 706 for further consideration violates Congressional recognition that network deployment is an integral part of reaching the Act's goal of ensuring access to advanced telecommunications services for all Americans and will drive the nation in the direction of an information rich/poor society."[3861] Universal Service Alliance states that "[s]ections 706 and 254 should *not* be rigidly compartmentalized" because both statutory provisions strive to achieve the common goal of "ensuring that *all* Americans have access to affordable basic and advanced services in a competitive environment."[3862] In its reply comments, Universal Service Alliance notes that encouraging community involvement in the integration of technology into schools and libraries is one way that the Commission could, in the context of section 254, encourage the deployment of advanced services, as contemplated in section 706.[3863]

375. United States Senator Charles S. Robb states that the goals of the National Education Technology Funding Corporation, which are described in section 708, should be incorporated in the universal service program for schools and libraries. Senator Robb encourages the Commission to "examine specific mechanisms, new or existing, to facilitate the purpose of this funding corporation, which includes leveraging resources to provide important assistance to elementary and secondary schools and encouraging private investment in education technology infrastructure."[3864]

[3860] Alliance for Public Technology comments at 18-19; Universal Service Alliance comments at 8-9.

[3861] Alliance for Public Technology comments at 18-19.

[3862] Universal Service Alliance comments at 8-9.

[3863] Universal Service Alliance reply comments at 5-7.

[3864] Charles S. Robb reply comments at 3.

H. Implementation

1. Comments

376. Numerous commenters support the Joint Board's recommendation that the Commission adopt rules that will permit schools and libraries to begin using discounted services ordered pursuant to section 254(h) at the start of the 1997-1998 school year.[3865] New York DOE, however, notes that many schools and libraries may choose to delay investing in telecommunications and networking infrastructure until the "full impact" of the universal service proceeding is known, given the potential for significant savings. New York DOE notes further that "[t]his delay could have potentially devastating consequences for near term capacity building, precisely at the time when these services are needed the most."[3866]

XI. HEALTH CARE PROVIDERS

A. Overview

The following is a summary of the comments relating to universal service support for rural health care providers.

B. Services Eligible for Support

1. Comments

377. Medical Applications Using Telecommunications Services. Several

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[3865] *See, e.g.*, ALA comments at 3; Alliance for Distance Education comments at 2; Brooklyn Public Library comments at 1; Illinois State Library comments at 1; Mississippi comments at 2; Ohio DOE comments at 6; Washington Library comments at 8.

[3866] New York DOE comments at 10.

commenters describe medical applications or functions that they assert currently use or require telecommunications services.[3867] Some commenters ask us to designate the Advisory Committee's "market basket" of essential telemedicine services for support.[3868] Others request additions thereto, and still others submit similar recommendations without reference to the Advisory Committee's report.[3869] For example, Kansas Hospital Association endorses the Advisory Committee's list but would also include support for home care and "rural-to-rural" connections,[3870] explaining that the long distances that make it difficult for rural health care providers to deliver critical home care services also cause these providers to rely on each other, rather than hospitals in urban centers, for consultations.[3871] RTC recommends its own list of services that includes clinical interactive video consultation, management and transport of patient information, links between rural facilities and library resources, access to on-line patient medical histories, and easier access to insurance data.[3872]

378. Nurse Practitioners list the following "basic telecommunications tools" that they assert are needed for patient care in rural, as well as urban, settings: 1) the ability to send and receive non-radiologic still images for patient assessment and consultation; 2) the ability to send and receive diagnostic quality physiologic sounds (*e.g.*, heart, lung) from patients to

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[3867] *See e.g.*, AAMC comments at 2-3; AHA comments 5; Alaska PSC comments at 5; Ameritech comments at 25; Kansas Hospital Association comments at 1; Nebraska Hospitals comments at 1-2; Nurse Practitioners comments at 2-3; RTC comments at 45-46; St. Alexius comments at 1.

[3868] *See e.g.*, AAMC comments at 1; AHA comments at 1; Kansas DHE comments at 1-2; Kansas Hospital Association comments at 1; United Health Services comments at 1-2.

[3869] *See e.g.*, Alliance for Public Technology comments at 27-30.

[3870] Kansas Hospital Association comments at 1.

[3871] Kansas Hospital Association comments at 1.

[3872] RTC comments at 45.

health care professionals; 3) the ability to send and receive synchronous, two-way audio and video of instructional and educational quality for health professional education; 4) the ability to use high speed transmission of outputs of patient data collection and monitoring devices (e.g. EKG, vital signs); and 5) the ability to send body fluid smear images to remote diagnostic labs for assessment.[3873] ITC asserts that "the quality of transmitted x-ray, CAT Scan and MRI detail must be of diagnostic quality," and that "[o]n-line video transmission of emergency room surgical procedures must be such that professional guidance can be provided from experts in the distant city."[3874]

379. Numerous commenters involved in public health fields assert that the health-related services that public health agencies provide -- including the prevention and control of epidemics, and the coordination of the public response to disasters such as toxic spills, floods, and tornadoes -- should be eligible for support. These commenters state that in times of disaster, having instant access to information from each other and agencies like FEMA, CDC, and the FDA, will prevent disease and save lives, so that the ability to communicate electronically throughout the state and nation is imperative.[3875] Representing state and territory health officials, ASTHO asserts that the term "health care" should be interpreted

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[3873] Nurse Practitioners comments at 1-2; North Dakota DOH comments at 1-2; RTC comments at 45-46.

[3874] ITC comments at 9.

[3875] *See* APHA comments at 1; Ford County Health Department comments at 1; Grant County Health Department comments at 1; Gray County Health Department comments at 1; Livingston County Public Health Department comments at 1; Marquette County Health Department comments at 1; Mitchell County Health Dept. comments at 1; Osage County Health Department comments at 1; Osborne County Health Department comments at 1; Phillips County Health Department comments at 1; Russell County Health Department comments at 1; Stanton County Health Department at 1. *See also* HHS comments at 2 (describing public health services -- including transmission of preventive health data, reports of epidemiological investigations, guidelines for delivery of preventive services, training materials, and emergency notices; professional tele-consultation with two-way interactive audio and video, access to health data and information via Internet, and multi-point consultation for health emergencies -- as health care services requiring and eligible for supported telecommunications services).

broadly to include non-clinical, population-based public health services.[3876] ASTHO adds that a "core responsibility" of the public health system is the collection and dissemination of public health data to appropriate local, state, and federal entities.[3877]

380. Determining the Scope of Necessary Telecommunications Services. In responding to the question in the Public Notice about how best to determine "the exact scope of telecommunications services necessary for the provision of health care services in a state," AHA and other commenters report difficulty in finding more than anecdotal evidence upon which to base an answer. AHA reports that it is "extremely difficult, if not impossible," to respond to the question, because health care needs and the methods of delivery of health services vary across states and among local communities.[3878] AHA asserts that there is "very little evaluative data regarding what exactly works, what doesn't and under what circumstances with regard to telecommunications for health care" and even less regarding non-health care delivery applications for teaching and administration.[3879] American Telemedicine states that "[t]he required connectivity speeds for the delivery of health care varies widely depending on the type of medical service being delivered, immediacy of need, and quality of equipment used on both ends of the transmission.[3880]

381. Some commenters contend that the Commission should not designate or limit

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[3876] ASTHO comments at 1.

[3877] ASTHO comments at 2.

[3878] AHA comments at 5.

[3879] AHA comments at 4.

[3880] American Telemedicine comments at 2.

services for support.[3881] U S West, for example asserts that the Commission "should avoid mandating particular services or modes of service delivery in ways that would limit customer choice, risk `locking in' obsolete technologies, or hamper the most efficient results by unwisely favoring some technologies over others."[3882] Several parties maintain that support mechanisms should "permit health care service providers the flexibility to choose the service that best suits their specific needs."[3883] Similarly, several parties contend that the Commission should not restrict the scope of supported services to a particular bandwidth or technology that might become obsolete.[3884] United Services suggests that setting such limits on support might inhibit the development or deployment of new technologies.[3885] To avoid these consequences, United Services suggests defining supported services in broad, practical terms.[3886] West Virginia Consumer Advocate criticizes the Joint Board for implying that rural health care providers should be limited to a pre-approved menu of services.[3887]

382. Some commenters suggest limiting the definition of necessary telecommunications services in various ways. USTA states that "the statute recognizes the

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[3881] *See, e.g.,* Fred Williamson comments at 5; iSCAN, L.P. comments at 5; United Health Services comments at 2; U S West comments at 50-51.

[3882] U S West comments at 50.

[3883] U S West comments at 51; *see also* Sprint comments at 22 (contending that Commission should establish modest list of initial services, then allow market to determine whether demand exists for additional, more sophisticated services); Wyoming PSC comments at 12 (proposing that the exact scope of services should be determined by relevant health care providers based on actual local needs).

[3884] Fred Williamson comments at 5; United Health Services comments at 2; U S West comments at 50-51.

[3885] United Health Services comments at 2.

[3886] United Health Services comments at 2.

[3887] West Virginia Consumer Advocate comments at 13.

distinction between `necessary'. . . and . . . `desirable'" and that only necessary services should be supported.[3888] Citing the requirement of section 254(c)(1)(C) that to be eligible for core universal service support, a telecommunications service must be "commercially available in urban areas,"[3889] USTA and PacTel agree that "[t]o be considered a `necessary' telecommunications service," the requested service should be "commercially available and deployed within a carrier's network, and subscribed to by a majority of urban health care providers."[3890] BellSouth agrees and would add the requirement that necessary services "in a State" must be widely deployed in telecommunications networks.[3891] SBC would limit support to only those services that 1) are "required" and "used solely" to enhance delivery of patient care or are used for patient diagnostic activities and treatment, and 2) have been subscribed to by a majority of health care providers in urban markets.[3892] Several ILECs contend that only telecommunications services supporting clinical-care medical services should be eligible for support.[3893] AT&T asserts that only the hospital's "administrative network, i.e., the networks used to deliver patient care, and not the alternative network used to provide telecommunications services to patients in their rooms," should be eligible for support.[3894]

[3888] USTA comments at 39.

[3889] *See* 47 U.S.C. § 254(c)(1)(C).

[3890] PacTel comments at 54; USTA comments at 39-40.

[3891] BellSouth comments at 41.

[3892] SBC comments at 10.

[3893] *See* Ameritech comments at 25 (asserting that televisions in patients' rooms are not necessary or eligible for support); PacTel comments at 54 (asserting that "bedside services" such as patient phones for personal use in hospitals should not be eligible under § 254(h)(1)(A)); SBC comments at 10 (proposing to add general administrative lines to list of unnecessary services).

[3894] AT&T comments at 24 n.15.

383. Alternatively, some commenters propose other methods of determining which services are "necessary for the provision of health care." Some commenters suggest letting the carriers decide the level of services to be deployed to health care providers.[3895] SBC suggests allowing carriers to work with health care providers to determine the technologies and services that will best serve their needs.[3896] Contending that the needs for health care delivery, infrastructure, and service will vary greatly, University of Nevada School of Medicine suggests that the Commission require that a committee be established in each state to define the services and needs for that state. Under this plan, each state would provide specific recommendations to a task force appointed by the Commission, which would gather information through state offices of rural health and other telemedicine projects and meet to refine these issues in order to develop national standards and variations.[3897]

384. Limitations Based on Bandwidth. The majority of commenters agree that limitations on supported services for health care providers might appropriately be based on bandwidth.[3898] Of these, virtually all either support, or make recommendations similar to, the

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[3895] *See* PacTel reply comments at 29; SBC reply comments at 25; Sprint reply comments at 4.

[3896] SBC reply comments at 25.

[3897] University of Nevada School of Medicine comments at 1-2.

[3898] *See, e.g.,* Alaska PUC comments at 5; Ameritech comments at 25; Apple comments at 4; BellSouth comments at 41 (stating "this does not necessarily mean that all services up to DS1 would automatically qualify for support"); HHS comments at 2-4; LCI comments at 13; MCI comments at 19 (stating that "support should be limited to advanced services such as T-1 service"); SBC comments at 10; University of Nevada School of Medicine comments at 1 (urging that "support should be provided to rural communities for services of at least the equivalent of T-1 capacity due to the cost implications and lack of availability of multiple switched lines"); USTA comments at 39-40 (endorsing recommendation that "necessary communications services should be limited to those supporting a capacity of up to and including 1.544 Mbps speed or its equivalent"); U S West comments at 51.

Advisory Committee's recommendation,[3899] that the Commission limit universal service support to services that employ transmission speeds up to and including 1.544 Mbps or its equivalent.[3900] HHS agrees with the Advisory Committee's recommendation and adds that the Commission should allow providers to choose any service up to the 1.544 Mbps ceiling for any health-care-related application the provider determines to be necessary.[3901] HHS emphasizes the need to provide bandwidths high enough to transmit high-quality images and deliver fully interactive video.[3902] Ameritech likewise supports a 1.544 Mbps bandwidth limitation, stating that it has noted "a number of telemedicinal applications[3903] that utilize services at speeds ranging from 384 Kbps to 1.544 Mbps and that services up to and including that range should satisfy the overwhelming majority of applications."[3904] Several other commenters agree that a full range of telemedicine services requires transmission speeds of up to 1.544 Mbps.[3905] Nebraska Hospitals, adding that the "opposing forces operating on

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[3899] Advisory Committee Report at 1-2.

[3900] *See, e.g.*, Alaska PUC comments at 5; Ameritech comments at 25; Apple comments at 4; BellSouth comments at 41; HHS comments at 2-4; LCI comments at 13; MCI comments at 19; SBC comments at 10; University of Nevada School of Medicine comments at 1; USTA comments at 39-40. The comments sometimes refer to the digital transmission rate 1.544 Mbps as T-1 or DS-1 service.

[3901] HHS comments at 2-4.

[3902] HHS comments at 2-4.

[3903] For purposes of this Order, we take the terms "telemedicine," "telehealth," "telemedicinal applications," and "telemedicine-related services," to be interchangeable.

[3904] Ameritech comments at 25.

[3905] *See* Apple comments at 4; Illinois DPH comments at 2; NACCHO comments at 1 (asserting that T-1s are needed for all rural areas); Nebraska Hospitals comments at 2; PacTel reply comments at 29; Rural Wisconsin Health Cooperative comments at 2; St. Alexius comments at 1 (asserting importance of setting the minimum bandwidth at 1.544 Mbps because less bandwidth delays image transmission and causes "jerkiness" in

telemedicine" make 1.544 Mbps a reasonable bandwidth, explains that "improved compression technology has the effect of reducing required bandwidth, while on the other hand, development of new technologies in medicine increases the need for bandwidth."[3906]

385. Other commenters distinguish among different bandwidth needs for different medical functionalities.[3907] American Telemedicine asserts that although most telemedicine functions can be accomplished with a bandwidth of 112 Kbps,[3908] transmission speeds up to T-1 levels should be made available to "rural hospitals and academic medical centers" to facilitate live video conferencing and continuing medical education for rural health providers.[3909] American Telemedicine contends that 1.544 Mbps capacity "is primarily needed for medical consultations requiring live, interactive video with high quality images," but that applications using "store and forward" transmission of still images require far slower

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picture quality when patient moves that interferes with ability accurately to diagnose and treat patient).

[3906] Nebraska Hospitals comments at 2.

[3907] *See e.g.*, American Telemedicine comments at 2; Alaska PSC comments at 5 (asserting that a minimum of 128 Kbps to 384 Kbps data lines should be available to allow store and forward technologies for data transfer, but 384 Kbps to 1.544 Mbps data services are needed for video teleconferencing and teleradiology at larger rural health care facilities that may serve as regional hubs for remote locations); Nebraska Hospitals comments at 1 (asserting that although 56 Kbps lines are currently sufficient for transmitting health-care-related information, 1.544 Mbps is most appropriate and cost effective service for real-time video between patients, doctors, and specialists, and for simultaneous transmission of multiple, high-resolution X-ray-type studies, where transmission time may be critical to injured person).

[3908] *See* American Telemedicine comments at 2, n 2 ("This rate was derived using an ISDN line with merged channels, increasing the normal ISDN transmission from 64 Kbps to 112 Kbps" to double the rate over normal phone lines.").

[3909] American Telemedicine comments at 2.

transmission speeds.[3910] Kansas Hospital Association supports the Advisory committee's recommendation on supporting 1.544 Mbps services, its experts, however, agree that 384 kbps is the minimum needed for interactive video technology.[3911]

386. Only one commenter suggests that a bandwidth limitation at some level below 1.544 Mbps might be appropriate. U S West, which prefers that the Commission set no limit on supported services, contends that if the Commission decides to mandate a particular service, the Commission should designate Private Line Transport Service (PLTS) at 56/64 Kbps. U S West asserts that this level of bandwidth "will adequately meet the various needs of rural health care providers."[3912] Both PacTel and American Telemedicine, which previously suggested that limiting support to ISDN levels would be sufficient,[3913] now acknowledge that some carriers might find it more cost effective to provide services up to T-1 speeds[3914] and that 1.544 Mbps is necessary for some real-time interactive emergency and diagnostic-quality video applications.[3915]

387. Services Requiring Bandwidth Higher Than 1.544 Mbps. Only iSCAN L.P.

[3910] American Telemedicine comments at 2-3.

[3911] Kansas Hospital Association comments at 1-2.

[3912] U S West comments at 51. *But compare* Association for Computing Machinery comments at 1 ("The telecommunications bandwidth required to support real-time access and/or high resolution medical imagery is among the highest required for any computing application so the issue is more than simply universal service, high bandwidth is also needed").

[3913] *See* PacTel NPRM comments at 9; PacTel comments at 54.

[3914] PacTel reply comments at 29.

[3915] American Telemedicine comments at 3.

seeks support for services requiring bandwidth higher than 1.544 Mbps.[3916] iSCAN L.P. states that the Commission should avoid limiting services to 1.544 Mbps because iSCAN L.P. provides services at higher bandwidths that might cost less or provide higher quality.[3917] For example, iSCAN L.P. asserts that it provides a technology that offers bandwidth above 1.544 Mbps that does not require video compression equipment costing tens of thousands of dollars as do modem-based services like T-1.[3918] iSCAN L.P. further states that transmitting X-rays requires bandwidth higher than 1.544 Mbps but that the extra cost of higher bandwidth may be justified by the savings resulting from the ability of more experienced doctors to provide second opinions.[3919]

388. Several commenters express doubt that services transmitting at bandwidths higher than 1.544 Mbps are necessary to provide health care services at the present time.[3920] For example, Kansas Hospital Association "agree[s] completely with the Advisory Committee that the relative costs [of supporting higher bandwidths] would be higher than the benefits."[3921] Indeed, Kansas Hospital Association suggests that if bandwidths higher than 1.544 Mbps are supported, the opportunity cost will be that areas needing greater access to minimum-levels of bandwidth will suffer at the expense of high-bandwidth users.[3922]

[3916] *See* iSCAN L.P. comments at 3-5.

[3917] iSCAN, L.P. comments at 3-5.

[3918] iSCAN, L.P. comments at 5-6.

[3919] iSCAN, L.P. comments at 5-6.

[3920] *See, e,g,*. AAMC comments at 1-2; Ameritech comments at 25; BellSouth comments at 13; Kansas Hospital Association comments at 2; Nebraska Hospitals comments at 2; MCI comments at 19; SBC comments at 4; USTA comments at 39; Wyoming PSC comments at 13 ("The cost of low volume usage would in many cases exceed the ability to pay for [bandwidth higher than 1.544 Mbps.").

[3921] Kansas Hospital Association comments at 2.

[3922] Kansas Hospital Association comments at 2.

Nebraska Hospitals concurs that "[s]upporting bandwidth greater than 1.544 Mbps would appear to offer relatively small additional return in improved health care to the rural residents."[3923] Apple, which advocates limiting support to 1.544 Mbps for the present, asserts that "[i]n the near future, universal service will have to comprise a full range of additional digital services, with bandwidths ranging between at least 45 and 100 Mbps."[3924]

389. Bifurcated Support. Some commenters contend that we should provide different levels of support for different categories of health care providers. For example, characterizing its proposal as a cost-saving measure, AT&T asserts that "rural hospitals providing secondary care and above" should receive access to a level of service consistent with T-1 throughput (1.544 Mbps) and that rural primary care providers should receive access to telecommunications services up to ISDN or similar technology.[3925]

390. Internet Access. Numerous commenters agree with the Advisory Committee[3926] that the telecommunications link providing access to an Internet service provider is a telecommunications service necessary for the provision of health care services by rural health care providers.[3927] American Telemedicine asserts that there is no doubt that the Internet will

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[3923] Nebraska Hospitals comments at 2.

[3924] Apple comments at 4.

[3925] AT&T comments at 23; *see also* ORHP/HHS NPRM comments at 8-9 (stating that rural hospitals providing secondary care and above should receive T-1 services, while rural primary-care clinics, should receive services at 64 to 128 Kbps, with emergency capacity up to 384 Kbps).

[3926] Advisory Committee Report at 4, 6-7.

[3927] *See, e.g.*, AAMC comments at 1, 2; AHA comments at 1 (urging the Commission to adopt recommendations of Advisory Committee, including Internet access); American Telemedicine comments at 4; APHA comments at 1, 3-5 (stating that telecommunications access, including Internet applications, is important to public health); HHS comments at 2; Nebraska Hospitals comments at 1 (stating that access to the Internet is necessary to provide access to numerous sources of medical information and to distribute health-care-related information); Alaska Telemedicine Project reply comments at 7; NTIA reply comments at 29; Scott & White

play an increasing role in the use of telemedicine in the years ahead.[3928] SBC and Georgia PSC contend that Internet access itself is not a telecommunications service and therefore is not eligible for support.[3929] BellSouth and USTA, on the other hand, acknowledge that the telecommunications component of Internet access is eligible for support.[3930]

391. Infrastructure Development and Upgrade. Most commenting on this subject urge the Commission to reject the Advisory Committee's recommendation,[3931] supported by some members of Congress and Senate sponsors of the 1996 Act,[3932] to use universal service support mechanisms to build or upgrade the public switched network or backbone

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reply comments at 1; *see also* letter from Senators Olympia J. Snowe, J. Robert Kerrey, and John D. Rockefeller IV, primary sponsors of the Snowe-Rockefeller-Exon-Kerrey provision of the 1996 Act, to Chmn. Reed E. Hundt, FCC, dated January 9, 1997, at 1 (Senate January 9 *ex parte*) at 2 (supporting local toll rates for Internet access); Letter from Senator Kent Conrad et al., Congress of the United States, to Chmn. Reed E. Hundt, FCC dated January 10, 1997 (Congressional January 10 *ex parte*) at 2 (asserting that the intent of § 254(h)(1)(A) is that "providers receive access to the Internet as quickly as possible, and that they not wait for the marketplace which may not respond to the communications needs of rural communities").

[3928] American Telemedicine comments at 4.

[3929] SBC comments at 10; Georgia PSC reply comments at 2-30, citing AT&T comments at 24.

[3930] BellSouth comments at 43; USTA comments at 40.

[3931] *See* Advisory Committee Report at 3, 8; Recommended Decision, 12 FCC Rcd at 421.

[3932] *See* Senate January 9 *ex parte* at 1 (Strongly supporting the use of universal service support mechanisms to fund the construction or upgrade of infrastructure); Congressional January 10 *ex parte* at (strongly recommending that the Commission allow universal service support to be used for telemedicine infrastructure development to the fullest extent possible).

infrastructure.[3933] These commenters contend that supporting network buildout would be contrary to the provisions of section 254(h).[3934] Several commenters assert that section 254(h)(1)(A) does not provide a support mechanism that would allow for network buildout or upgrade.[3935] Others contend that section 254(h)(2)(A) likewise does not permit the funding of such activities that are not telecommunications services.[3936] Several commenters assert that supporting network buildout and upgrade for rural areas would be too costly and would unnecessarily burden the universal service support mechanisms.[3937] PacTel adds that funding network buildout would not be economically reasonable under section (h)(2)(A),[3938] and NCTA asserts that alternative technologies such as broadband cable services or wireless may be more efficient than wireline services.[3939]

[3933] *See, e.g.,* AT&T comments at 25; Bell Atlantic comments at 19; Georgia PSC comments at 30-31; MCI comments at 19; NCTA comments at 23-24; Nebraska Hospitals comments at 3; SBC comments at 11; WorldCom comments at 33; AirTouch reply comments at 32-33; Ameritech reply comments at 30; BANX reply comments at 24; WorldCom reply comments at 17.

[3934] *See* BellSouth comments at 44 (asserting that nothing in § 254(h) would permit such a use of universal service funds).

[3935] MCI comments at 19; *see also* BellSouth comments at 44; NCTA comments at 24 ("no record evidence that such construction is necessary"); PacTel comments at 58 ("inconsistent with the statute"); SBC comments at 11 ("beyond the scope of authority under the Act").

[3936] AT&T comments at 25-26; *see also* Ameritech comments at 27 (asserting that Congress did not intend to fund modernization of networks in rural areas through the mechanism of § 254(h)(2)).

[3937] *See* Ameritech comments at 31; Bell Atlantic comments at 19; SBC comments at 11; Ameritech reply comments at 30; U S West comments at 49.

[3938] PacTel comments at 58.

[3939] NCTA comments at 24.

392. Several commenters contend that funding network buildout and upgrade would not be competitively neutral as required by section 254(h)(2)(A).[3940] They assert that only ILECs would receive such support and that carriers receiving such support would receive a substantial competitive advantage, because they could use the funds that they otherwise would have used to upgrade their rural networks to support competitive services in other areas.[3941] In addition, some commenters contend that supporting network buildout and upgrade would be unfair to those carriers that have upgraded their networks without support or those that have entered into state-sponsored programs to build out the network.[3942] Several commenters urge us to let natural market forces operate to provide any needed infrastructure upgrades.[3943] Some assert that the availability of universal service support will provide the necessary incentive for carriers to invest in the infrastructure necessary to extend needed services to rural areas and that this deployment will be achieved at a lower cost and with less waste than if it were attempted through regulation[3944]

393. Some commenters approve of mandated extension of services to unserved areas so long as carriers are compensated for their construction costs. Ameritech distinguishes between requiring carriers to conduct general network upgrades, which it opposes, and requiring carriers to extend service, on a case-by-case basis, to currently unserved customers.[3945] Ameritech asserts that if a health care provider requests a service "not yet

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[3940] *See* Ameritech comments at 27*;* AT&T comments at 26; BellSouth comments at 45-46; NCTA comments at 23-24; PacTel comments at 58; Ameritech reply comments at 9.

[3941] *See* AT&T comments at 26; NCTA comments at 23-24; Ameritech reply comments at 9.

[3942] *See* Ameritech comments at 27; BellSouth comments at 45-46; PacTel comments at 59-60.

[3943] *See, e.g.*, SBC comments at 11; USTA comments at 40-41.

[3944] *See* Ameritech comments at 28; BellSouth comments at 45; USTA comments at 41.

[3945] *See* Ameritech comments at 26-28; U S West comments at 49.

available in the rural area," the rural health care provider, not universal service support mechanisms, should fully reimburse the carrier for any required "special construction charges."[3946] U S West states that the Commission should not require services to be deployed in areas where they are not currently offered unless carriers are reimbursed from universal service support mechanisms for the up-front construction costs.[3947]

394. Support for Other Specific Services. AHA and PacTel agree with the Joint Board's recommendation to support terminating as well as originating services when terminating services are billed to the health care provider, as in the case of cellular air time charges.[3948] AT&T and SBC support the Joint Board's recommendation that non-telecommunications services be excluded from the list of services to be supported for health care providers.[3949]

395. Use of Other Technologies. Some commenters suggest providing support for non-wireline technologies. Cylink suggests that the relative costs of providing digital links, which common carriers may employ to provide service to rural areas and to facilitate the provision of rural health care and distance-learning communications, can be reduced through the use of "unlicensed spread spectrum, non-consumer, point-to-point links" made possible with Cylink equipment.[3950] Alaska PSC reports that it is heavily dependent on satellite communications to provide links between remote, rural health care providers and regional

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[3946] *See* Ameritech comments at 26-27.

[3947] *See, e.g.*,U S West comments at 51-52.

[3948] *See* Recommended Decision, 12 FCC Rcd at 421; AHA comments at 5; PacTel comments at 54.

[3949] AT&T comments at 24; SBC comments at 10.

[3950] Cylink comments at 1-3. Cylink explains that it manufactures and sells equipment for the support of non-consumer (marketed to common carriers, industrial concerns and governments), point-to-point digital links at less than the cost of conventional microwave technology.

health care services.[3951]

396. Comparative Cost of Services With Capacities of up to 1.544 Mbps. HHS agrees with the Advisory Committee that the Commission need not limit the amount of services to be funded for individual health care providers.[3952] HHS contends that providing universal service funding to health care providers will not generate tremendous demand for sophisticated telecommunications services, because rural health care providers and local health departments have very limited budgets and are likely to be extremely cost conscious when requesting services.[3953]

397. U S West reports that the monthly cost of providing Private Line Transport Service at the DS-0 speeds (56/64 Kbps) into a Frame Relay network fifty miles away from a business customer would be approximately $180.00. Service to the same customer at DS-1 speeds (1.544 Mbps) would cost approximately $1288.06 or over seven times as much.[3954] Citing a recent study by Abt Associates for the federal Office of Rural Health Policy, AHA states that most telemedicine networks are complex, containing an average of four-spoke sites, two hubs, and four facilities to provide and receive consultations.[3955] Equipment costs, excluding switches and new lines, range from $134,378.00 for spoke sites to $287,503.00 for

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[3951] Alaska PSC comments at 5.

[3952] Advisory Committee Report at 7; HHS comments at 2-4; West Virginia Consumer Advocate comments at 13.

[3953] HHS comments at 2-4; West Virginia Consumer Advocate comments at 13.

[3954] *See* letter from Glen Brown, US West, to William F. Caton, FCC, dated November 4, 1996 (U S West November 4 *ex parte*) at 1-2.

[3955] AHA comments at 3.

hub sites.[3956] Reported annual transmission costs range from an average of $18,573.00 for spokes to $80,068.00 for hubs. According to AHA, many rural hospitals, even acting through a consortium, would be unable to afford these infrastructure and transmission costs absent significant relief through the universal service support mechanisms.[3957] The Nevada Rural Hospital Project cites the equipment cost of interactive video, with appropriate diagnostic equipment, for the Nevada telecommunications project for rural providers ranging from $65,000.00 to $100,000.00 per site.[3958] For each of its six to eight fiber-optic transmission lines with multiple switch 56 capability, the project incurred a $200.00 per line hook-up charge and a monthly charge of $40.00 per line, in addition to long distance rates, which varied by carrier and community.[3959]

398. High Plains Rural Health Network, which includes 13 rural and six urban health institutions, spends $3,934.00 per month on one in-state point-to-point telemedicine connection.[3960] The Bassett Healthcare Telemedicine Network in New York spends from $2,198.00 to $4,087.00 per month for T-1 lines at different sites.[3961] Illinois DPH reports that it has incurred approximately $1.2 million in additional costs annually to extend high speed links to the 72 local health departments located in rural areas of Illinois. iSCAN estimates the cost of its eight Mbps channel at over $4,000.00 per month, compared to its estimate of T-1 service at $1,968.00 per month.

[3956] AHA comments at 3.

[3957] AHA comments at 3.

[3958] AHA comments at 3.

[3959] AHA comments at 3.

[3960] AHA comments at 3.

[3961] AHA comments at 3.

399. Periodic Review. Several commenters emphasize the need for regular review of the services for which health care providers may receive support.[3962] AHA rejects the Joint Board's recommendation of review in the year 2001 and instead suggests that the Commission revisit the list of supported services within 18 months of issuance of the final regulations.[3963] HHS, supporting the review cycle recommended by the Advisory Committee, asserts that rapid development in the health sector and evolving telecommunications technology creates a need to reassess the "market basket" of essential applications within two years.[3964] HHS would also like a review to be completed before the end of a recently initiated three-year telemedicine demonstration sponsored by the Health Care Financing Administration, a major goal of which is to determine whether or how Medicare should cover such services.[3965]

C. Eligibility of Health Care Providers

1. Defining eligibility for health care providers.

a. Comments

400. Some commenters endorse the Joint Board's recommendation to limit eligibility

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[3962] *See* AHA comments at 5; Congressional January 9 *ex parte* at 2 (contending that the intent of the statute is that Commission revisit "the issues of provider eligibility, eligible services, and infrastructure development on a regular basis, to ensure that both access and cost concerns are fairly balanced"); HHS comments at 4; ITC comments at 9 ("Above all others, this aspect of Universal Service support should be looked upon as evolving and in need of constant guidance and oversight by representatives of the medical profession, the telecommunications industry and the regulators"); Senate January 9 *ex parte* at 1 (supporting a flexible and frequently reviewed implementation program).

[3963] AHA comments at 5.

[3964] HHS comments at 4.

[3965] HHS comments at 4.

to health care providers located in rural areas.[3966] Others propose that the Commission not limit support in such a manner. DC PSC contends that economically disadvantaged health care providers as well as those in high cost areas should be eligible for universal service support, irrespective of whether they are located in rural or urban areas.[3967] Colorado LEHTC asserts that the list of eligible health care providers should include teaching hospitals, located in urban areas, that benefit rural areas.[3968] Community Colleges argues that community colleges located in non-rural areas that provide health care instruction via distance learning should be eligible for universal service support. According to Community Colleges, "it is the very need for affordable telecommunications services to support distance learning capabilities that requires that community colleges that serve rural areas not be forced to pay elevated prices to deliver educational programming or to provide interactive instruction."[3969] Kansas Hospital Association urges the Commission to include urban medical schools and medical centers as eligible providers for two reasons. First, they contend that urban hospitals are the underlying source of the educational network for physicians and provide the access to specialty consultation that is not available to rural areas through any other means. Second, they assert that urban hospitals have assumed a disproportionate share of the cost of providing technology-based services to rural hospitals and providers. Much of the infrastructure investment, as well as the customer premises equipment, has been financially and technically supported by these urban facilities.[3970]

[3966] *See, e.g.*, AT&T comments at 25.

[3967] DC PSC comments at 2.

[3968] Colorado LEHTC comments at 3. *See also* Colorado PUC reply comments at 4 (suggesting that the definition of health care provider be corrected to include providers serving residents in rural areas, not just those located in rural areas).

[3969] Community Colleges comments at 20.

[3970] Kansas Hospital Association comments at 3-4.

401. Similarly, Western Governors criticizes the Joint Board for "mistakenly" interpreting the term "health care provider" to include only those that are located in rural areas.[3971] Western Governors asserts that in defining an eligible provider as one that "serves persons who reside in rural areas," section 254(h)(1)(A) "does *not* limit the location of the provider."[3972] Western Governors further contends that limiting eligibility in the way that the Joint Board recommends would thwart the purpose of the statute by, for example, "limiting the delivery of specialty care to rural areas by urban teaching hospitals."[3973]

402. Some commenters challenge the statutory mandate to limit subsidies to entities that serve rural areas.[3974] HHS supports the Advisory Committee's recommendation that the Commission and Congress investigate whether incentives for the development of telehealth applications in underserved urban areas would be appropriate.[3975]

2. Defining rural areas.

a. Comments

403. Methods for defining rural areas. Two commenters generally endorse the use of the ORHP/HHS method of defining rural areas.[3976] LCI contends, however, that the

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[3971] Letter from Edward T. Schafer, Western Governors, to Chmn. Reed E. Hundt, FCC, dated March 5, 1997 (Western Governors March 5 *ex parte*) at 1-2.

[3972] Western Governors March 5 *ex parte* at 2 (Emphasis in original).

[3973] Western Governors March 5 *ex parte* at 2.

[3974] *See* HHS comments at 5; Mississippi Dept. of Health comments at 1.

[3975] HHS comments at 5.

[3976] AT&T comments at 25; West Virginia Consumer Advocate comments at 12.

Commission should adopt a definition of "rural areas" consistent with the definition of service areas or "study areas" of rural telephone companies under the Act.[3977] Criticizing the Joint Board's failure to recommend such an approach, LCI claims that LEC study areas are no more difficult to ascertain than boundaries of a municipality or census block.[3978]

404. The West Virginia Consumer Advocate strongly supports the Joint Board's recommendation that the Commission adopt the "Goldsmith Modification" of the MSA list in order to distinguish which health care providers are located in rural areas and are thus eligible for discounts on telecommunications services.[3979]

405. Frontier Areas. ORHP/HHS,[3980] AHA,[3981] and High Plains RHN[3982] suggest giving special consideration to the unique circumstances of "frontier" areas with extremely low population densities which they define to include areas with fewer than six persons per square mile.

406. Insular areas. CNMI points out that the proposed definitions of urban and rural would not work for CNMI in part because CNMI does not have counties.[3983] CNMI argues that the Commission could declare Saipan as an urban area and Tinian and Rota as rural

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[3977] LCI comments at 11-13 (*citing* 47 U.S.C. §153(37)).

[3978] LCI comments at 12.

[3979] West Virginia Consumer Advocate comments at 12.

[3980] ORHP/HHS NPRM comments at 5-6.

[3981] AHA comments at 5.

[3982] *See* High Plains RHN comments at 2.

[3983] CNMI comments at 22-24.

areas. Such a ruling, according to CNMI, would mean that the $0.25 per minute charge for inter-island calls would be eligible for support.[3984] Similarly, Governor of Guam urges the Commission to address Guam's unique geographic situation in order to provide affordable telemedicine services.[3985] Governor of Guam points out that Guam does not conveniently fit into the Joint Board's recommendation for determining costs based on nearby urban areas because Guam has no designated metro areas under OMB's MSA listing.[3986] It suggests, therefore, that the Commission list as rural those insular areas not designated as metro in the OMB/MSA listing.[3987]

3. Definition of health care provider

a. Comments

407. Scott & White states that the definition of health care provider must be as broad as possible and should not be based on criteria other than geographic location and populations served.[3988] Kansas Hospital Association contends that the Commission should include rural home care providers as eligible for universal service support.[3989]

D. Implementing Support Mechanisms for Rural Health Care Providers

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[3984] CNMI comments at 25-26.

[3985] Governor of Guam comments at 12.

[3986] Governor of Guam comments at 12-13.

[3987] Governor of Guam comments at 12-13.

[3988] Scott & White reply comments at 1.

[3989] Kansas Hospital Association comments at 3-4.

1. Identifying the applicable rural rate

a. Comments

408. AT&T approves of the Joint Board's proposed method for determining the rural rate.[3990] In contrast, Illinois CC asserts that, because of the intrastate application of section 254(h)(1)(A), "state commissions are the appropriate entities to determine the comparability of rates in urban and rural areas of a given state and to fund such programs pursuant to section 254(f) and section 254(h)(1)(A)."[3991] For that reason, Illinois CC contends that the Commission should adopt only general guidelines regarding section 254(h)(1)(A) and allow the states to establish and fund additional intrastate universal service programs "for rural and high cost areas based on local conditions if appropriate."[3992]

2. Identifying the applicable urban rate

a. Comments

409. Most commenters support the method for determining the urban rate recommended by the Joint Board.[3993] SBC maintains that, because of average pricing constructs, many rates are already equivalent between urban and rural areas, but agrees that to the extent that they are not, the Joint Board's recommendation is a reasonable way to ensure

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[3990] *See* AT&T comments at 25.

[3991] Illinois CC comments at 3-4.

[3992] Illinois CC comments at 3.

[3993] *See, e.g.*, AT&T comments at 24 (agreeing with Joint Board that urban rate should be based on highest rate tariffed or publicly available in nearest urban area within state); Bell Atlantic comments at 19; NCTA comments at 26-27 (agreeing with Joint Board's decision "with respect to defining the `reasonably comparable' urban rate."); PacTel comments at 56-57; SBC reply comments at 26.

rural and urban comparability of rates.[3994] PacTel generally supports the Joint Board's recommendation but requests clarification as to which urban rate applies when the providing carrier does not serve the nearest urban area.[3995] PacTel also recommends that where there are no tariffed or publicly available rates in the city nearest the health care provider, the Commission should use the tariffed or publicly available rates in the nearest city in the state where such rates are available.[3996]

410. MCI disagrees with the Joint Board's recommendation and asserts that carriers should charge rural health care providers "no more than the TELRIC rate" for the same or comparable service in the nearest urban area.[3997]

411. Rates and distance-based charges. Many commenters support eliminating what they refer to as "distance-based charges," those charges added to the usual charges for telecommunications services provided in urban areas because of a health care provider's "distant location."[3998] The Senate sponsors of the Snowe-Rockefeller-Exon-Kerrey

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[3994] SBC reply comments at 24-27.

[3995] PacTel comments at 57.

[3996] PacTel comments at 57.

[3997] MCI comments at 19.

[3998] *See* AHA comments at 5; American Telemedicine comments at 5; Congressional January 10 *ex parte* at 1 (strongly urging Commission to adopt distance-neutral rate structure for rural telemedicine services); HHS comments at 2, 4 (noting that rural providers may be paying 10-20 times more for the same services because of the great distances involved); Illinois DPH comments at 2 (reporting that most Internet service providers are available for $20.00 to $30.00 per month, usually including five hours of access and that a $.10 per minute distance charge would double the monthly cost); Kansas DHE comments at 1; Kansas Hospital Association comments at 2 (noting that access to an ISDN line in Topeka, 200 miles east and the nearest "point of presence" available, adds 40 percent to the basic bill for distance-based charges); Nebraska Hospitals comments at 3; St. Alexius comments at 1; University of Nevada School of Medicine comments at 1; Scott & White reply

Amendment to the 1996 Act assert that the Act prohibits "the use of distance in determining transmission rates."[3999] American Telemedicine asserts that because Congress's intent in passing the 1996 Act was "to increase access to quality health care by reducing the cost of telecommunications to rural providers," failure to eliminate distance-based charges for these providers would "effectively thwart the intent of Congress" because such charges are the "primary difference" between urban and rural telecommunications costs."[4000] Nebraska Hospitals contends that "it is not primarily the difference in rates" that undercuts the rural health care providers' ability to provide telemedicine, but rather it is the mileage charge that makes the cost unmanageable for rural providers.[4001]

412. Few commenters submitted information regarding the cost of eliminating distance-based charges. Nebraska Hospitals proposed that the Commission could eliminate distance-based charges by providing rural health care providers with telecommunications links to their primary source for medical consultations.[4002] Nebraska Hospitals would calculate the "urban rate" for such telecommunications links based on the charge paid for a similar telecommunications service by the urban health care provider located the farthest distance from its serving central office. For example, Nebraska Hospitals explains that the current charge in Nebraska to connect the most distant urban hospital to its central office switch

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comments at 1; Senate January 9 *ex parte* at 1; University of Kentucky Center for Rural Health reply comments at 1.

[3999] *See* Senate January 9 *ex parte* at 1.

[4000] American Telemedicine comments at 5 (stating that "[e]qualizing the cost of accessing advanced telecommunications services between urban and rural areas must include factors that eliminate the "distance-penalty" paid by rural health care providers for each and every level of telecommunications service required by telemedicine from voice-grade to T-1 services").

[4001] Nebraska Hospitals comments at 2.

[4002] Nebraska Hospitals comments at 2.

using a T-1 line is $644.64 per month. That amount would then become the charge for each T-1 circuit connecting each eligible rural health care provider to its primary source of medical consultation.[4003] Nebraska Hospitals estimates that the annual cost of eliminating the distance-based charges in this way for all hospitals and rural health clinics in Nebraska would be $1,262,130.10.[4004] These figures are based on established or likely medical consultation patterns and assume a three-year phase-in of all eligible rural health care facilities.[4005] The estimate also takes into account the one-time installation costs for the necessary T-1 circuits ($183,150.94), spread over a three-year period.[4006]

413. Several ILECs contend that section 254(h)(1)(A) precludes the Commission from providing support that covers fully, or even partially, distance-based charges.[4007] These commenters assert that the term "rates" refers to the charge for each element of a telecommunications service, rather than the total charges paid by a customer.[4008] BellSouth explains that "if the rate structure for a service includes a distance sensitive component, as long as the rate for that component is the same in both urban and rural areas, then there is no

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[4003] Nebraska Hospitals comments at 2.

[4004] Nebraska Hospitals comments at 3.

[4005] Nebraska Hospitals comments at 3 (noting that we can reasonably assume that because not all health care providers will come onto the network at once, one-third the total amount would be used the first year, two-thirds of the total amount would be used the second year, and the total amount would be used the third year).

[4006] Nebraska Hospitals comments at 3.

[4007] *See, e.g.*, AirTouch reply comments at 33; Ameritech comments at 25-27; PacTel comments at 3, 56 (stating that "[w]e advocate the equalization of distance-sensitive rates but not the mileage against which those rates are applied); Ameritech reply comments at 8; GCI reply comments at 14; PacTel reply comments at 30; SBC reply comments at 24-27 (stating that "it is unnecessary and beyond the confines of the Act to attempt to eliminate distance and usage-based rates from any carrier's pricing structures, especially for intrastate services.").

[4008] *See* Ameritech comments at 25-26; USTA comments at 40.

rate differential."[4009] PacTel adds that if, for example "an urban provider pays a rate of $10.00 per mile for a distance sensitive service, the statute's only requirement is that a rural provider pay the same $10.00 per mile *rate,"* regardless of whether the rural provider ultimately pays a higher price based on its distance from the central office.[4010]

414. InterLATA charges. Some commenters assert that InterLATA charges are an impediment to telecommunications use for rural health care providers.[4011] Illinois DPH and University of Nevada School of medicine assert that interLATA charges are a major factor in telecommunications costs for rural health departments.[4012] American Telemedicine suggests exempting carriers serving rural health care providers from existing interLATA restrictions for the purpose of providing toll-free Internet access.[4013]

3. Competitive bidding

a. Comments

415. Several commenters suggest that to select the carrier to provide the requested service, health care providers be required to use a process of competitive bidding much like

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[4009] BellSouth comments at 42-43. *See also* SBC reply comments at 24-27 (contending that the Act doesn't imply that the rural health care provider's total bill is to be equal to a total bill for an urban health care provider but it implies that each rate assessed on a rural health care service is to be reasonably comparable to the equivalent urban rate).

[4010] PacTel comments at 56. (emphasis in original).

[4011] *See* American Telemedicine comments at 4; Illinois DPH comments at 2; University of Nevada School of Medicine comments at 1.

[4012] Illinois DPH comments at 2; University of Nevada School of Medicine comments at 1.

[4013] American Telemedicine comments at 4.

the method the Joint Board recommended for schools and libraries.[4014] NCTA asserts that the Recommended Decision implies that the incumbent carrier will always be the provider of supported services and, to avoid this result, suggests that a competitive bidding process be used to select the telecommunications provider.[4015] NCTA contends that, under its proposal, the level of subsidy will never be larger than it would have been in the absence of competitive bidding.[4016] Some commenters assert that competitive bidding should not be used in areas served by rural telephone companies.[4017]

4. Insular areas and Alaska

a. Comments

416. Insular areas. Both CNMI and the Governor of Guam assert that the unique telecommunications needs of the health care providers serving the residents of their territories were not addressed by the support mechanisms for rural health care providers recommended by the Joint Board.[4018] They contend that because neither Guam nor the Northern Mariana Islands contain large cities, urban areas, counties, or county equivalents identified as "metropolitan" by OMB, and because both territories are nearly completely rural in character, the methods outlined in the Recommended Decision for defining urban and rural areas and for

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[4014] *See e.g.*, Cox comments at 9; NCTA comments at 26.

[4015] NCTA comments at 26.

[4016] NCTA comments at 26.

[4017] *See e.g.*, Minnesota Coalition comments at 27-29.

[4018] *See* CNMI comments at 22-23; Governor of Guam comments at 13.

equalizing rates between them cannot be easily applied to these insular areas.[4019] These commenters assert that the telemedicine needs of the insular areas are great. CNMI reports that although its three government-run health centers on the islands of Saipan, Tinian, and Rota serve 4,000 patients per month, or seven percent of its total population of 58,846, it currently lacks the facilities, medical specialists, and trained personnel to provide advanced or specialized health care.[4020] For this reason, CNMI reports that it spent over seven million dollars in one year to transport by air 574 patients to Hawaii and Guam for medical treatment, thus subjecting "acutely ill or injured patients to treatment delays and transport-related risks to health and safety."[4021] CNMI asserts that it needs affordable telecommunications services to support high speed data transmission, provider-to-provider and provider-to-patient consultations, and diagnostic evaluations without the need for travel.[4022] The Governor of Guam asserts similarly that because of the great distances to major medical centers, Guam's need for supported telemedicine applications is compelling.[4023]

417. Both CNMI and the Governor of Guam suggest mechanisms by which to support the cost of telecommunications services for health care providers in CNMI, Guam, and other insular areas.[4024] The Governor of Guam suggests that the Commission designate as

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[4019] *See* CNMI comments at 22-23; Governor of Guam comments at 13; *see also* Interior reply comments at 2 (stating that "the Joint Board's definition of urban and rural are highly problematic for insular areas").

[4020] *See* CNMI comments at 18-19.

[4021] *See* CNMI comments at 19-20.

[4022] *See* CNMI comments at 21.

[4023] *See* Governor of Guam comments at 12.

[4024] *See* CNMI comments at 24-25; Governor of Guam comments at 13. CNMI suggests defining "insular areas as "islands that are territories or commonwealths of the United States or are quasi-independent nations that are associated with the United States by compact or other special arrangement." CNMI asserts that this

rural areas all those insular areas not listed as "metropolitan" areas in the OMB MSA list, and further designate a city on the west coast of the United States as the urban area for setting the "urban rate." The Governor of Guam further suggests that "for insular areas without urban medical centers," the Commission should consider designating telecommunications costs between the insular area's medical facilities and a supporting medical center in an urban area as services eligible for support.[4025] CNMI suggests that for health care providers in the Commonwealth, the Commission should support interstate services to Guam, Hawaii, and the mainland, pursuant to section 254(h)(2)(A).[4026] Alternatively, CNMI proposes that the Commission designate Saipan as an urban area and Tinian and Rota as rural areas. Pursuant to the latter approach, CNMI contends that universal service support mechanisms would support the $0.25 per minute charge for inter-island calls.[4027] Both Guam and CNMI request universal service support for toll-free Internet access.[4028]

418. Puerto Rico. Puerto Rico reports that it is the largest United States possession, with a population of 3.74 million people.[4029] The government-owned Puerto Rico

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definition includes American Samoa, Guam, the United States Virgin Islands, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, the Republic of the Marshall Islands, the Federated States of Micronesia, and Puerto Rico. This definition is intended to exclude islands that are states, islands that are parts of states, and uninhabited islands or islands with no indigenous population. Letter from Thomas K. Crowe, counsel to CNMI, to William F. Caton, FCC, dated February 24, 1997 (CNMI Feb. 24 *ex parte*).

[4025] *See* Governor of Guam comments at 13.

[4026] *See* CNMI comments at 24-25.

[4027] *See* CNMI comments at 25-26.

[4028] *See* CNMI comments at 25 n. 70; Governor of Guam comments at 4-6.

[4029] Letter from Joaquin A. Marquez, Puerto Rico Telephone Company (PRTC), to William F. Caton, FCC, dated March 25, 1997 (PRTC March 10 *ex parte*) at attachment p. 6.

Telephone Company states that it provides services over 1.25 million access lines.[4030] Puerto Rico has metropolitan and nonmetropolitan areas with 28 municipalities listed by OMB as MSAs.[4031] Puerto Rico states that on its island are nine regional hospitals, eight of them in rural areas, and at least two medical colleges in San Juan, Puerto Rico's largest city.[4032]

419. Several commenters describe Alaska's particular telecommunications challenges and how they affect the ability of its health care providers to deliver health care services to Alaska residents. Alaska PUC asserts that "Alaska is the only state that is heavily dependent upon satellite communications to provide links between the majority of the remote, rural health care providers and the few regional hospitals and health care services." Alaska PUC explains that satellite transmission has several drawbacks, including time delay between the transmission and reception of signals, bandwidth restrictions, and high costs.[4033] Alaska PUC further explains that where affordable connectivity is available in rural Alaska, it is often limited to 9.6 Kbps, with some locations limited to 2.4 Kbps service, which Alaska PUC asserts is insufficient bandwidth capacity to support the needs of Alaska's rural health providers.[4034] Alaska PUC contends that, at a minimum, 128 Kbps to 384 Kbps data lines should be available at a reasonable cost for store-and-forward technologies for data transfer and that 384 Kbps to 1.544 Mbps data services are needed for video teleconferencing and teleradiology at the larger rural health care facilities that may serve as regional hubs for remote locations with limited facilities.[4035] Alaska Telemedicine Project asserts that Alaska's telecommunications infrastructure must be improved to allow project members to send

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[4030] PRTC March 10 *ex parte* at attachment p.14.

[4031] *See Metropolitan Areas by State and County as Designated by OMB - June 30 1996.*

[4032] PRTC will provide documents to supplement their oral presentation of March 24, 1997.

[4033] *See* Alaska PUC comments at 4-5.

[4034] *See* Alaska PUC comments at 5.

[4035] *See* Alaska PUC comments at 5.

radiology images at affordable prices from all sites in rural Alaska, to perform clinical applications in collaborative arrangements, and to provide continuing medical and health care education at a distance.[4036]

420. Several commenters urge the Commission to establish a system of funding to ensure that critically needed services are both available and affordable to Alaska's rural health care providers, at rates comparable to those found for similar services in urban areas of Alaska.[4037] Alaska PUC asserts that a support mechanism based on a comparison between the toll and local rates in urban and rural areas would be insufficient. For example, Alaska PUC urges the Commission to recognize that most urban health care providers can transmit digital data to nearby hospitals at relatively inexpensive local rates, whereas a rural health care provider sending the same data via satellite to the closest hospital incurs distance-sensitive, toll charges reported to be $5,000.00 per month or more.[4038] Similarly, the majority of rural health care providers in Alaska incur high toll and distance-based costs to access Internet service providers, while urban based health care providers can access Internet service providers through a local call.[4039] Alaska similarly requests support that would eliminate the difference in distance-sensitive charges between rural and urban areas and permit a carrier to acquire and deploy the infrastructure required to provide a requested service . . . at charges that are equivalent to the charges in [Anchorage]."[4040] In addition, Alaska requests support to connect the state's largest urban medical center in Anchorage with advanced specialty care and medical research activities available only in large metropolitan areas outside the state

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[4036] *See* Alaska Telemedicine Project reply comments at 5.

[4037] *See* Alaska PUC comments at 5; Letter from Robert M. Halperin, counsel for Alaska to William F. Caton, FCC, dated March 7, 1997 (Alaska March 7 *ex parte*) at att. 1, p. 6.

[4038] *See* Alaska PUC comments at 5 n.2.

[4039] *See* Alaska PUC comments at 5.

[4040] *See* Alaska March 7 *ex parte* at att. 1, p.6-7.

such as Seattle.[4041] Alaska also asserts that in many of the communities in which rural health care providers are located, "existing telecommunications infrastructure is insufficient to support telemedicine."[4042]

E. Capping and Administering the Mechanisms

1. Selecting Between Combined or Separate Support Mechanisms for Health Care Providers and for Schools and Libraries

a. Comments

421. Frontier urges the Commission to combine rural health care and school and library support for federal funding purposes."[4043] In contrast, SNET and AT&T assert that there should be a separate fund for each purpose.[4044] SNET contends that the health care fund should be separate and distinct from other subsidy mechanisms, because it is an entitlement program.[4045] WorldCom urges the Commission to establish a separate fund for rural health care support that uses the same mechanism as the one proposed for schools and libraries, with discounts of 20 to 90 percent based on economic need and location.[4046]

2. Funding Cap

[4041] *See* Alaska March 7 *ex parte* at att. 1, p.3.

[4042] *See* Alaska March 7 *ex parte* at attachment 1, p.6.

[4043] Frontier comments at 3-4.

[4044] *See* AT&T comments at 25; SNET comments at 8.

[4045] *See* SNET comments at 8.

[4046] WorldCom comments at 33*; see also* South Carolina comments at 14-15 (contending that a scheme similar to the one proposed for schools and libraries would serve the goal of the 1996 Act.).

a. Comments

422. Some commenters suggest capping the amount of support that can be expended on health care providers per year.[4047] AT&T, supported by Georgia PSC, asserts that a total cap and a per-institution cap are necessary to control the size of the overall program and to ensure that the amounts available for support are distributed equitably.[4048]

F. Restrictions and Administration

1. Restrictions on Resale and Aggregated Purchases

a. Comments

423. Two commenters express concerns about how the restrictions on the resale of telecommunications services will apply when a facility is used to provide service to both an eligible health care provider and to other entities that are not eligible for universal service support. Georgia Dept. of Admin. Services seeks assurance that eligible public health care providers in Georgia will still be able to use services currently provided at volume discounted rates by DOAS-IT (Information Technology Division of the Georgia Department of Administrative Services).[4049] DOAS-IT competitively procures, provides, and administers telecommunications and information system services to health care providers, public schools, technical schools and universities, law enforcement agencies and correctional facilities, and

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[4047] *See* AT&T comments at 25; Georgia PSC reply comments at 30; WorldCom comments at 31.

[4048] *See* AT&T comments at 25; Georgia PSC reply comments at 30.

[4049] Georgia Dept. of Admin. Services comments at 2-4; Georgia Dept. of Admin. Services reply comments at 31-32 (explaining that disaggregating rural from urban hospitals would reduce savings from volume discounts).

other state and local government agencies.[4050] DOAS-IT secures lower prices for its members by enabling them to share facilities and aggregating volumes to secure volume discounts.[4051]

424. Community Colleges seeks assurances that if telecommunications or advanced services are used to provide health care instruction and to support other educational activities, the Commission's rules will permit certifications that accommodate discounts on shared lines for that portion attributable to health care instruction. Community Colleges contends that, otherwise, it would be required to "over-subscribe" to telecommunications services by purchasing additional lines used solely for the provision of health care, in order to benefit from federal universal service support mechanisms.[4052] Community Colleges suggests requiring providers that use telecommunications connections for several purposes to maintain records of use to prevent fraud or misappropriation of universal service funds.[4053]

2. Bona Fide Requests

a. Comments

425. Additional Certification Requirements. Two commenters suggest imposing certification requirements beyond those proposed by the Joint Board.[4054] USTA states that "[a] bona fide request should include verifiable plans by the rural health care provider that it has considered and is able to utilize all related components of the telecommunications service

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[4050] Georgia Dept. of Admin. Services comments at 2.

[4051] For example, DOAS-IT would combine network long distance with local dialtone and a telephone set as a single "service." Georgia Dept. of Admin. Services comments at 2.

[4052] Community Colleges comments at 19.

[4053] Community Colleges comments at 19.

[4054] *See* BellSouth comments at 41; USTA comments at 40.

needed to make the health care service function appropriately" and that it "has the necessary internal connections and customer premises equipment to make use of the requested services."[4055] BellSouth suggests that the Commission establish further guidelines to prevent frivolous and wasteful requests, such as a requirement that each request be accompanied by a clear and concise statement of the health care need to be satisfied by the service. Moreover, BellSouth proposes that to establish a bona fide request, a health care provider should demonstrate that the requested service is widely used by health care providers in the state.[4056]

3. Selecting Between Offset or Reimbursement for Telecommunications Carriers

a. Comments

426. Several commenters disagree with the Joint Board's recommendations to treat the amount eligible for support only as an offset against the carrier's universal service support obligation and to carry any offset balances forward to future years.[4057] NYNEX states that the mandatory offset rule is contrary to sections 254(h)(1)(B)(i) and (ii) of the Act, which allow a carrier the option of offset or reimbursement from the fund. NYNEX claims that it would be "confiscatory" to treat the amount eligible for support as an offset, because the carrier has no

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[4055] USTA comments at 40. *See also* PacTel comments at 56 (advocating that health care providers be required, as part of their "bona fide" request, to certify that they have supporting technology available to them).

[4056] BellSouth comments at 41.

[4057] Alaska PSC comments at 3-4 (requesting that the Commission allow direct reimbursement of an eligible carrier's cost of providing discounts to health care providers when those costs exceed the carrier's contributions to the system); AMSC comments at 11 (arguing that carriers should be reimbursed for amounts exceeding the universal service contribution offset or, alternatively, should be permitted to substitute an agent or reseller that would be entitled to its offset); NYNEX comments at 24-25; United Utilities comments at 7.

means of recovering its contributions from the ratepayers.[4058]

427. Several commenters contend that the Joint Board's recommendation against direct reimbursement for services and in favor of an offset violates the principle of competitive neutrality, because this approach discriminates against small carriers with universal service funding obligations insufficient to allow the carrier to receive the full offset in the current year.[4059] Alaska PSC notes that some of the smallest carriers will not contribute to universal service, because of the *de minimis* exemption provisions discussed in the Recommended Decision at paragraph 800,[4060] and therefore would never be compensated for their provision of telecommunications services at urban rates to health care providers. Moreover, Alaska PSC argues that the small companies that do contribute to universal service support mechanisms may not have the resources to fund internally the yearly difference between the discount and the contribution. According to Alaska PSC, the minimal amounts of contribution of such small carriers are unlikely ever to balance the discounts that may be made available to health care providers, leaving these companies to fund the difference.[4061]

F. Advanced Telecommunications and Information Services

1. Comments

428. Few commenters offer a definition of the services that should be included in "advanced telecommunications and information services" as that phrase is used in section 254(h)(2). Some contend that the Commission should not attempt to designate or define

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[4058] NYNEX comments at 23-25.

[4059] Alaska PSC comments at 3-4; United Utilities comments at 7.

[4060] Recommended Decision, 12 FCC Rcd at 489 (recommending that the Commission exempt carriers for which the contribution [to the universal service support mechanisms] would be less than the cost of collection).

[4061] Alaska PSC comments at 3-4.

specific advanced services, but instead should allow market forces to select more efficiently the best services,[4062] or should rely on a separate proceeding under section 706 of the Act.[4063] One commenter contends that because the statute only requires the Commission to establish rules to "enhance . . . access" to such services, rather than to support the services themselves, it can do so without specifying the services to which it is attempting to enhance access.[4064]

429. MCI asserts that advanced services include services such as T-1 that would permit quick transmission of images such as X-rays necessary to provide medical services such as remote consulting and diagnosis.[4065] BellSouth asserts that they include the transport of data, video and imaging at speeds up to 1.544 Mbps, access to the Internet, distance learning, and many telemedicine services.[4066] Frontier states that services such as Asynchronous Transfer Mode (ATM) and ISDN technology are advanced services but asserts that they should not qualify for support.[4067] CCV asserts that it provides advanced services in different projects including: Interactive broadband networks providing high speed, point-to-point data and video transmission; a fiber optic system that provides multi-point data transmission among various users; broadband communications networks using cable modems and an ATM backbone to provide video and high speed data services including full access to library resources and the Internet; and point-to-point data transfer at 3 to 4 Mbps.[4068]

[4062] *See, e.g.,* Sprint NPRM comments at 23.

[4063] *See, e.g.,* USTA NPRM comments at 12.

[4064] *See* CCV NPRM comments at 5.

[4065] MCI comments at 19.

[4066] BellSouth comments at 23.

[4067] Frontier NPRM comments at 5.

[4068] CCV NPRM comments at 7-11.

430. The comments of several commenters, including Alliance for Public Technology, BellSouth, Frontier, MCI, and USTA give support to the concept that advanced services include, at the least, the additional services supported under sections 254(c)(3) and 254(h)(1).[4069]

431. LCI expresses doubt about whether access to advanced services for rural health care providers would be technically feasible or economically reasonable.[4070] It contends that mandating additional advanced services would involve substantial new investments that may not be sound.[4071]

432. USTA contends that the marketplace will efficiently deploy advanced services notwithstanding Commission action.[4072] USTA expects that, by bringing the rates for health care providers in rural areas to a level comparable to urban rates, the Act will create the market dynamics necessary to provide these same services to entire rural communities via the most efficient technology. Thus, USTA expects that increased marketplace demand and competition will ensure that rural communities will have access to a technologically advanced network in an efficient and effective manner.[4073]

433. Internet Access. Several commenters strongly endorse universal service support

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[4069] Alliance for Public Technology comments at 30-31; BellSouth NPRM comments at 23; Frontier NPRM comments at 5; MCI comments at 19; USTA NPRM comments at 12.

[4070] LCI comments at 13 (stating that "only transmission capabilities of 1.544 Mbps should be provided to all rural health care providers as part of the universal service support system).

[4071] LCI comments at 13.

[4072] USTA comments at 41.

[4073] USTA comments at 41.

for toll-free Internet access.[4074] American Telemedicine asserts that rural health care providers should have access to the Internet at rates comparable to those charged in urban areas and that this toll-free access "should be a national priority."[4075] HHS urges the Commission to support Internet access "at local calling rates for rural health care providers."[4076] Nurse Practitioners agrees that local dial-up access, without long distance charges, should be available as a health care service to all Americans.[4077] Nebraska Hospitals asserts that toll-free access to the Internet is necessary to provide cost-effective use of the numerous sources of medical information and to facilitate the flow of health care-related information.[4078]

434. Some commenters describe specific impediments to, or suggest particular methods for, implementing full Internet access in rural areas. Wyoming PSC reports that Internet access in rural areas is usually by modem and often at speeds as low as 1200 bps because of the "continuing extensive use of analog carrier in rural local loops."[4079] Wyoming

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[4074] *See, e.g.*, AAMC comments at 1, 2; AHA comments at 1 (urging the Commission to adopt recommendations of Advisory Committee including Internet access); American Telemedicine comments at 4; APHA comments at 1, 3-5 (stating that telecommunications access, including to Internet applications, is important to public health); Congressional January 10 *ex parte* at 2 (strongly urging that Internet access be made "available at local rates (or, if feasible, toll free)"); HHS comments at 2; Nebraska Hospitals comments at 1 ("toll-free access to Internet is necessary to provide cost-effective use of numerous sources of medical information and to facilitate flow of health care-related information"); Alaska Telemedicine Project reply comments at 7; NTIA reply comments at 29; Scott & White reply comments at 1; Senate January 9 *ex parte* at 2 (stating that these three Senators support local-toll rates for Internet access).

[4075] American Telemedicine comments at 4.

[4076] HHS comments, transmittal letter at 2.

[4077] Nurse Practitioners at 4.

[4078] Nebraska Hospitals at 1.

[4079] Wyoming PSC comments at 13.

PSC asserts that this situation persists because 1) ISPs are not responsible for the local loop upgrades that would allow higher speed access, and 2) LECs are reluctant to upgrade loops because of higher costs and lower subscriber density in rural exchanges.[4080] NACCHO reports that approximately 75 percent of local health departments are not "on-line."[4081] American Telemedicine recommends that in implementing the policy of toll-free Internet access for "all health care providers," and contends that to achieve this objective, the Commission should consider a variety of approaches including: auctions for the establishment of local Internet "points of presence" throughout the country; special 800-number Internet access; wireless Internet access using cellular, satellite, or other wireless applications at local call rates; and special incentives to ILECs possibly including exemption from current restrictions on providing interLATA services.[4082]

435. Other commenters oppose supporting toll-free access to the Internet.[4083] SBC and Georgia PSC assert that support for toll-free Internet access is not necessary, because Internet service providers are expanding rapidly and the competitive marketplace will eliminate the perceived need to support such access.[4084] SBC, Georgia PSC, and Bell South contend that providing such support would reduce or "distort [Internet service providers'] incentives" to build their own facilities in rural markets.[4085] Contending that section 254

[4080] Wyoming PSC comments at 13.

[4081] NACCHO comments at 2.

[4082] American Telemedicine comments at 4-5.

[4083] *See, e.g.,* Ameritech comments at 25-27 (arguing that there is no merit in toll-free Internet access); USTA comments at 40-41; BANX reply comments at 24; Georgia PSC reply comments at 29-30 (arguing that Internet access should not be supported because it is not a telecommunications service).

[4084] SBC comments at 10; Georgia PSC reply comments at 30.

[4085] BellSouth comments at 44; SBC comments at 10; Georgia PSC reply comments at 30.

allows the equalization of rates but not charges, Ameritech, BellSouth PacTel, and USTA assert that any toll added to the telecommunications portion of Internet access is not eligible for support unless the toll rate for rural areas differs from that charged in urban areas.[4086]

436. Cost of Providing a Toll-free Connection to an Internet Service Provider. Nebraska Hospitals suggests that the lowest cost way to assure toll-free Internet access to hospitals may be to subsidize the local phone companies at an average toll rate of $.20 per minute for an average of 15 hours access, per hospital, per month. Nebraska Hospitals estimates the cost of such a subsidy would be $3,240.00 per month, or $38,880.00 per year. Nebraska Hospitals cautions, however, that this subsidy to the phone company should continue only until toll-free access becomes available to the community.[4087] Wyoming PSC urges the Commission to examine the costs of providing toll-free internet access in a manner similar to that by which it reviews the costs of providing Extended Area Service (EAS). For example, EAS implementation traditionally requires that the loss of toll revenues from extending service areas for local calls be calculated and added into an EAS surcharge for the affected exchanges. Applying this paradigm to the provision of Internet access, Wyoming PSC suggests that the Commission ascertain the actual costs involved in providing Internet service to rural health care providers rather than approximating the costs based on the loss of embedded revenue as advocated by some commenters.[4088]

XII. INTERSTATE SUBSCRIBER LINE CHARGES AND CARRIER COMMON LINE CHARGES

A. Overview

[4086] *See* Ameritech comments at 26; BellSouth comments at 42, 43; PacTel comments at 57-58; USTA comments at 40.

[4087] Nebraska Hospitals comments at 2.

[4088] Wyoming PSC comments at 13.

437. The following is a summary of comments relating to interstate subscriber line charges and carrier common line charges.

B. LTS Payments

1. Comments

438. Commenters generally agree with the Joint Board's conclusion that LTS constitutes an impermissible universal service support mechanism that must be modified to bring it into conformity with the Act.[4089] No party disputes the Joint Board's recommendation on this point.[4090] Puerto Rico Tel. Co. cautions that carriers that receive LTS do not also contribute to it under the current system, but would be required to do so if such support was drawn from the new mechanisms.[4091] Puerto Rico Tel. Co. argues that this effect should be considered in designing the new mechanisms.[4092]

C. SLC Caps

1. Comments

439. Many parties, particularly state consumer advocates and the SBA, agree with the Joint Board's recommendation to maintain or reduce the SLC for primary residential and

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[4089] *See, e.g.*, Ad Hoc comments at 28; Ameritech comments at 15; Bell Atlantic comments at 22.

[4090] Commenters' arguments challenging the Joint Board's proposed method for making LTS a part of the new universal service mechanism are addressed in section VII [high cost], *supra*.

[4091] Puerto Rico Tel. Co. comments at 11.

[4092] *Id*.

single-line business lines.[4093] These parties generally assert that the level of the SLC affects the affordability of local service. NASUCA argues that, through the SLC, basic exchange customers bear an unreasonable share of interstate loop costs, so that the SLC must be reduced to comply with the mandates of section 254(k).[4094] Many other parties, however, argue that SLC caps should be increased.[4095] These parties generally contend that the most economically efficient way to recover non-traffic sensitive (NTS) costs such as loop costs is through a flat charge on the cost-causing end user.[4096] Some commenters state that lowering the SLC would increase implicit subsidies because the cap is set lower than NTS costs, resulting in a subsidy from high-volume users to low-volume users in contravention of the Act.[4097] A few commenters maintain that the Commission should consider SLC cap issues in

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[4093] *See, e.g.,* CNMI comments at 40; DC OPC comments at 5; NASUCA comments at 2-7; SBA comments at 22-23; Texas PUC comments at 10-11; West Virginia Advocate comments at 13-16; CPI reply comments at 19-20. *See also* Richard Roth comments at 1-2 (arguing SLC should be abolished as a means of assisting low-income consumers).

[4094] NASUCA comments at 2-5.

[4095] *See, e.g.,* Ad Hoc comments at 25-26; AirTouch comments at 15; AT&T comments at 12; Bell Atlantic comments at 22; Citizens Utilities comments at 20; CSE Foundation comments at 15; MCI comments at 14-15; PacTel comments at 27-29; SBC comments at 36; Sprint comments at 16-17; U S WEST comments at 21; USTA comments at 22; ACTA reply comments at 4-6; GTE reply comments at 3-4.

[4096] *See, e.g.,* AirTouch comments at 14 (asserting that flat charge ensures that customers pay no more than full cost of facility); MCI comments at 16 (favoring flat rate because reducing SLC would unjustifiably burden interexchange carriers with rate increase); PacTel comments at 27-29 (supporting flat charge because reducing SLC would unfairly shift burden of unrecovered basic service costs to CCL).

[4097] *See, e.g.,* Ad Hoc comments at 22-26; Citizens Utilities comments at 22; PacTel comments at 28-29; SBC comments at 14.

its pending access reform proceeding rather than in this proceeding.[4098]

D. CCL Charges

1. Comments

440. Most parties agree with the Joint Board's recognition that the usage-sensitive CCL charge represents an inefficient way to recover largely NTS loop costs.[4099] Some parties argue that the usage-sensitive CCL charges are an implicit subsidy from high-volume users to low-volume users that should be eliminated to comply with the Act.[4100] Some agree with the Joint Board's alternative of converting the CCL charge to a per-line charge.[4101] Others, however, find fault with the Joint Board's proposal to assess a per-line CCL charge against the PIC, claiming that assessing the charge against only IXCs would not be competitively neutral.[4102] GSA argues that the usage-based CCL charge is economically inefficient and should be eliminated altogether.[4103] A number of parties assert that the Commission should address modifications to the CCL charge structure in our pending access charge reform

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[4098] *See, e.g.,* Bell Atlantic comments at 23; CompTel comments at 17; Georgia PSC reply comments at 34-35; Time Warner reply comments at 20-21.

[4099] *See, e.g.,* Ameritech comments at 16; AT&T comments at 11; CSE Foundation comments at 14; GTE comments at 41; Interactive Service Ass'n comments at 2-3; Sprint comments at 16; United Utilities comments at 8; USTA reply comments at 5.

[4100] *See, e.g.,* CSE Foundation comments at 14; GTE comments at 40; WorldCom comments at 36-38.

[4101] *See, e.g.,* CSE Foundation comments at 14; GTE comments at 40-41; ITAA comments at 3; Sprint comments at 16; CPI reply comments at 19-20; USTA reply comments at 5.

[4102] *See, e.g.,* Ameritech comments at 16; AT&T comments at 11; WorldCom comments at 38; ACTA reply comments at 4-5.

[4103] GSA comments at 3-4.

proceeding, rather than in this proceeding.[4104]

XIII. ADMINISTRATION OF SUPPORT MECHANISMS

A. Overview

441. The following is a summary of the comments relating to the issue of the administration of the universal service support mechanisms.

B. Mandatory Contributors to the Support Mechanisms

1. Comments

442. Mandatory Contributors.. Several commenters to the Recommended Decision agree that "all telecommunications carriers that provide interstate telecommunications services" must contribute to the support mechanism and state that this definition should be construed broadly to increase the funding base and reduce the contribution burden on any particular category of carrier.[4105] Very few commenters, however, list types of carriers that should be required to contribute.[4106] Arch states that a broad base of funding does not necessarily ensure "equitable and nondiscriminatory" contributions. Arch asserts that if

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[4104] *See, e.g.,* AT&T comments at 10; MFS comments at 34; Minnesota Coalition comments at 43-44; Time Warner reply comments at 19-20.

[4105] *See, e.g.,* GCI comments at 7; Georgia Dept. of Admin. Services comments at 4; NASTD comments at 4; USTA comments at 15; Washington UTC comments at 3; WorldCom comments at 40; Motorola reply comments at 18.

[4106] *See* Alliance for Distance Education comments at 1 (including telephone companies, cable television companies, direct broadcast satellite companies, local multipoint distribution service companies and wireless telecommunications service companies); GCI comments at 7 (including local, long distance, competitive access providers, cellular, pay phone, enhanced service providers).

Congress had only intended to ensure a broad base of funding, it would have required all carriers to contribute to the support mechanisms.[4107] Four commenters approve of adopting a method similar to one used to identify contributors to the TRS fund, under which the Commission would identify an illustrative list of "interstate telecommunications," to identify mandatory contributors.[4108] One of these commenters, LCI, cautions that the list should not be considered exhaustive.[4109] On the other hand, Utah PSC counters that the Joint Board's recommended list is overly inclusive and renders almost all telecommunications services interstate.[4110] Illinois CC argues that access service should not be included in the list of "interstate telecommunications" because it is not offered directly to the public.[4111] Keystone Communications argues that because section 254 does not define "telecommunications carrier," the Commission should apply the definition of "common carrier" or "carrier" contained in section 153(10), as opposed to providing an illustrative list of specific types of entities that must contribute.[4112]

443. Several commenters argue that specific types of carriers should not be required to contribute to the support mechanism.[4113] Some commenters assert that contributions should only be required from facilities-based service providers, because resellers of such services

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[4107] Arch reply comments at 2.

[4108] *See, e.g.*, DIRECTV comments at 5; GE Americom comments at 1-2; Keystone Communications comments at 2-3; LCI comments at 2.

[4109] LCI comments at 2.

[4110] Utah PSC comments at 5. *See also* Georgia PSC reply comments at 35-36.

[4111] Illinois CC comments at 6.

[4112] Keystone Communications comments at 3.

[4113] *See, e.g.*, DIRECTV comments at 2-4; GE Americom comments at 7-9; Keystone Communications comments at 6; Rural Electric Coop. comments at 2; UTC comments at 4-5.

already contribute to universal service through their payments to facilities-based carriers.[4114] Rural Electric Coop. adds that, since rural electric cooperatives providing telecommunications services to rural and high cost areas further universal service goals, they should not be required to contribute.[4115] Keystone Communications contends that broadcast transmission providers should be exempt from contribution because contributions would increase the cost to distribute new programming and would lead to less U.S. programming export.[4116] DIRECTV argues that multichannel video programming distributors (MVPDs) do not offer telecommunications because their subscribers do not specify the points between which the service is transmitted, or the video or audio services that MVPDs carry.[4117] Rather, DIRECTV alleges that while customers select the video and audio programming that they desire, the MVPD is solely responsible for selecting the programming options available to subscribers.[4118] GE Americom states that satellite space segment operators should be exempt from contribution because they do not benefit from the ability to connect to the PSTN and their private contracts prohibit them from recovering their contributions from their customers.[4119] GE Americom also notes that many customers use satellite space segments for video programming and that such activity should not trigger an obligation to contribute.[4120] Finally, GE Americom states that satellite companies should not contribute to the support mechanism because they will compete against foreign satellite companies not subject to

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[4114] *See* Keystone Communications comments at 6.

[4115] Rural Electric Coop. comments at 2.

[4116] Keystone Communications comments at 6.

[4117] DIRECTV comments at 2-4.

[4118] DIRECTV comments at 4.

[4119] GE Americom comments at 7-8.

[4120] GE Americom comments at 8.

similar requirements.[4121]

444. To the Public for a Fee. Several commenters question the Joint Board's recommendation regarding the interpretation of "to the public for a fee."[4122] GE Americom and a few other satellite companies argue that the provision of service to select customers on a private contract basis does not constitute service "directly to the public or to such classes of users as to be effectively available to the public."[4123] APPA states that "directly to the public or to such classes of users as to be effectively available to the public" should be interpreted to mean service offered on a virtually unrestricted or common carriage basis.[4124] Ad Hoc contends that the courts have stated that where a carrier makes individualized decisions about whether and on what terms to deal with customers, the carrier will not be a common carrier.[4125] Rural Electric Coop. states that companies that lease excess capacity to other telecommunications carriers should not be required to contribute to the support mechanism, because they do not provide telecommunications services "directly" to the public or to

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[4121] GE Americom comments at 8-9.

[4122] *See, e.g.*, Ad Hoc comments at 15-18; APPA comments at 5-9; DIRECTV comments at 4-5; GE Americom comments at 4-6; Illinois CC comments at 6; ITAA comments at 5-7; LCRA comments at 5-6; PanAmSat comments at 5-6; Rural Electric Coop. comments at 2; UTC comments at 8-9.

[4123] GE Americom comments at 4-6. *See also* DIRECTV comments at 4-5; PanAmSat comments at 5; UTC comments at 8-9.

[4124] APPA comments at 5-9. *See also* GE Americom comments at 4-6; UTC comments at 8; BSA ITAA joint reply comments at 3; IXC Communications reply comments at 2-4.

[4125] Ad Hoc comments at 16-17 *citing National Association of Regulatory Utility Commissioners v. FCC*, 553 F.2d 601, 608 (D.C. Cir. 1976) (*NARUC II). See also* IXC Communications reply comments at 2-3; UTC reply comments at 3-6.

subscriber end users.[4126] UTC notes that if contributions are based on gross revenues net of payments to other carriers and if wholesalers are not considered "telecommunications carriers," CAPs, IXCs, and other new entrants will not be allowed to subtract payments to wholesalers from their gross revenues and there will be no net effect on the total size of the support mechanism because CAPs, IXCs, and other new entrants will include in their contribution the revenues that would have otherwise been attributable to wholesalers.[4127] UTC further argues that "for a fee" should be interpreted as "for a profit," and that entities that do not offer services on a for-profit commercial basis, such as utility and pipeline companies, should not be required to contribute.[4128] LCRA requests that the Commission clarify that cost sharing for the construction and operation of private telecommunications networks does not constitute "telecommunications services" "for a fee."[4129]

445. International/Foreign Services. COMSAT, a satellite telecommunications company, argues that it should not be required to contribute to the universal service support mechanisms, because the terms of its license bar it from offering domestic interstate service.[4130] COMSAT admits that it does offer limited service to US territories and possessions, but contends that this minimal involvement in the interstate market should not be sufficient to trigger the obligation to contribute. COMSAT adds that, if it is found to provide interstate telecommunications services, its contribution base should be limited to its revenues

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[4126] Rural Electric Coop. comments at 2. *See also* APPA comments at 9 (discouraging electric utilities and other entities from leasing facilities to other carriers would delay competition); IXC comments at 4; UTC comments at 7-10.

[4127] UTC comments at 10.

[4128] UTC comments at 4-5.

[4129] LCRA comments at 7-8. *See also* Ad Hoc comments at 21-22; APPA comments at 5-10; UTC comments at 6; UTC reply comments at 2-3. *See Local Competition Order* at ¶ 994.

[4130] COMSAT comments at 2-4.

derived from interstate telecommunications services.[4131] CNMI argues that COMSAT should be required to contribute because it provides interstate services between Pacific points such as Guam, the Commonwealth of Northern Mariana Islands, and Hawaii and the mainland.[4132] PanAmSat contends that international communications are not "interstate telecommunications" in that they do not originate and terminate within the U.S. or its territories or possessions and questions why "international/foreign" was included in the list of interstate services.[4133] PanAmSat states that, in some limited cases, some of its satellites that are used to provide international service may include connections between U.S. points. For example, an international network may include multiple terminals located in the U.S. that may communicate with one another. PanAmSat asks that the Commission clarify that such incidental traffic not be considered interstate traffic and notes that it may have no way of tracking this traffic.[4134]

446. Information Service Providers. Many commenters agree with the Joint Board's recommendation that information and enhanced service providers should not contribute to the

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[4131] COMSAT comments at 4.

[4132] CNMI comments at 34.

[4133] PanAmSat comments at 3. We note that COMSAT filed with the Commission an Application for Review, or in the Alternative, a Waiver, in the matter of TRS, and the Americans with Disabilities Act of 1990, CC Docket No. 90-571, on March 17, 1995, regarding the Commission's contribution requirements for the interstate TRS Fund. In that filing, COMSAT argues that it should not be considered a carrier that provides interstate telecommunications services because it is largely prohibited from serving the U.S. domestic market. If the Commission disagrees, COMSAT requests that its contribution to TRS be based only on its interstate revenues. COMSAT's Application for Review is still pending.

[4134] PanAmSat comments at 4.

support mechanism.[4135] Keystone Communications states that information and enhanced service providers do not provide "telecommunications services" and should not be required to contribute. In addition, Keystone Communications asserts that if an ISP or ESP also provided telecommunications services its contributions should only be assessed against its revenues derived from the provision of telecommunications services.[4136] ITAA contends that there are only two situations in which an entity that provides enhanced service would be required to contribute: (1) when a common carrier provides both basic telecommunications and enhanced services; and (2) when a non-carrier ESP provides a stand-alone telecommunications service.[4137] LCI points to "Voice over the Internet" and argues that ISPs and ESPs should be required to contribute because these providers will increasingly compete with providers of basic telephone services.[4138] Interactive Services Ass'n requests that the Commission clarify that Internet access service is an information service, not a telecommunications service.[4139] Netscape proposes that the Commission assess universal service contribution requirements on ISPs and OSPs[4140] to the extent they provide the telecommunications services and facilities used for Internet access because such an approach would "better service the interests of educational technology by eliminating a compelling ground for appellate delay and possible

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[4135] *See, e.g.,* BSA comments at 5; Commercial Internet Exchange comments at 2; ITI comments at 4; Keystone Communications comments at 4; NetAction comments at 4; Netscape comments at 2-3; Business Software Alliance reply comments at 1.

[4136] Keystone Communications comments at 4. *See also* ITAA comments at 9.

[4137] ITAA comments at 10. *See also* ITI comments at 4 (including only ISPs or ESPs that separately provide telecommunications services as common carriers).

[4138] LCI comments at 3. *See also* CWA reply comments at 13.

[4139] Interactive Services Ass'n comments at 2.

[4140] Online Service Providers (OSPs) like America Online and the Microsoft Network package proprietary content with Internet access. *See* Netscape comments at 6.

reversal."[4141] Senator Stevens staff argues that information services are inherently telecommunications services because information services are offered via "telecommunications."[4142] Finally, ITAA finds no need for the Commission to re-evaluate which services qualify as information services,[4143] while NetAction agrees that review of the definition would be appropriate.[4144]

447. CMRS Providers. BANM asserts that the Commission provided no notice, as required by the APA, that the issue of CMRS contributions to state support mechanisms would be considered by the Joint Board and that the Commission had expressly not referred to the Board issues relating to state universal service programs.[4145] BANM asserts that the Joint Board exceeded its authority when it stated that section 332(c) does not preclude states from requiring CMRS providers to contribute to state support mechanisms and the Commission cannot lawfully adopt that position.[4146] In addition, several commenters aver that states lack the authority to assess contributions on CMRS providers.[4147] PageMart asserts that section 332(c) explicitly limits state universal service obligations to CMRS carriers, the

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[4141] Netscape reply comments at 3.

[4142] *See* Letter from Timothy A. Peterson, FCC, to William F. Caton, FCC, memorializing meeting between FCC and Sen. Stevens' staff, dated March 13, 1997.

[4143] ITAA comments at 10-11.

[4144] NetAction comments at 4. *See also* Netscape comments at 3-4.

[4145] BANM comments at 2.

[4146] BANM comments at 4-5.

[4147] *See, e.g.,* BANM comments at 6-10; Celpage comments at 6-7; CTIA comments at 13-16; Nextel comments at 3-6; PageMart comments at 2-3; PageNet comments at 14; AirTouch reply comments at 35-38; Arch reply comments at 4-6; UTC reply comments at 7-8.

services of which are a substitute for land line telephone service in a given state.[4148] Celpage states that this condition has not been met in any state[4149] and that state assessments will force carriers to raise rates, which would represent unlawful rate regulation, and would create barriers to entry.[4150] BANM notes that section 601(c)(1) states that the "Act . . . shall not be construed to modify, impair or supersede Federal, State or local law unless expressly so provided," and contends that nothing in the Act explicitly repeals section 332(c).[4151] PageMart adds that wireless services are inherently interstate and thus not subject to state assessments[4152] and that requiring CMRS providers to contribute to state and federal programs will subject them to double taxation.[4153] On the other hand, Kentucky PSC notes that although the services of wireless carriers are not a direct substitute for land line services, digital technology, new marketing alliances and strategies and bundling of service options will allow CMRS providers to compete for a larger share of the local market. For those reasons, Kentucky PSC plans to require CMRS providers to contribute to the state's new universal service program, and it urges the Commission not to undermine Kentucky PSC's proposed program.[4154] California PUC adds that CMRS providers are required to contribute to

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[4148] PageMart comments at 2-3. *See also* AirTouch comments at 32-33; APC comments at 11-12; BANM comments at 6; CTIA comments at 14-16; Nextel comments at 3-4; PCIA reply comments at 21-23; Vanguard reply comments at 7-8.

[4149] Celpage comments at 7. *See also* CTIA comments at 15 (contending Congress intended to prevent states from regulating CMRS unless subscribers have no alternative means of obtaining basic telephone service); Nextel comments at 4.

[4150] Celpage comments at 8.

[4151] BANM comments at 7.

[4152] PageMart comments at 3. *See also* Broadband PCS Alliance comments at 5.

[4153] PageMart comments at 3.

[4154] Kentucky PSC comments at 35-36. *See also* California PUC reply comments at 3 (including CMRS providers in California state program).

California's universal service program because it believes cellular customers benefit from universal service in the same way as land line customers. Furthermore, California PUC adds that cellular carriers may be eligible to receive universal service support.[4155]

C. Other Providers of Interstate Telecommunications

1. Comments

448. Keystone Communications asserts that it would not serve the public interest to require "other providers of telecommunications," such as private network operators, to contribute, because they: (1) do not substantially benefit from the PSTN or do not access the PSTN for the provision of their services; (2) derive little or no direct benefit from universal service; or (3) do not offer telecommunications services for a fee directly to the public.[4156] Keystone Communications adds that many "other providers" are small businesses that would have difficulty paying large contributions.[4157] Ad Hoc urges the Commission to clarify that private carriers will only be required to contribute to the extent, if any, that they provide interstate telecommunications services on a common carrier basis.[4158] Ad Hoc asserts that private carriers may provide telecommunications to a discrete group of customers for a fee without incurring common carrier or universal service obligations.[4159] It states that the courts have held that where a carrier makes individualized decisions about whether and on what

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[4155] California PUC reply comments at 3-4.

[4156] Keystone Communications comments at 5. *See also* ITAA comments at 5; LCRA comments at 5-6; Orion Atlantic comments at 5-6; UTC comments at 3.

[4157] Keystone Communications comments at 5.

[4158] Ad Hoc comments at 15-16. *See also* ITAA comments at 7-9; Orion Atlantic comments at 5-7.

[4159] Ad Hoc comments at 15-18. *See also* ITAA comments at 5-7; LCRA comments at 5-6; PanAmSat comments at 5-6; UTC comments at 8-10.

terms to deal with customers, the carrier will not be a common carrier.[4160] UTC adds that requiring private carriers, which privately lease their facilities, to contribute would not encourage facilities-based competition.[4161] RBOC Payphone Coalition argues that payphone service providers, LEC and non-LEC, are aggregators exempt from the definition of telecommunications carrier.[4162] They add that, consistent with the *Local Competition Order* and Commission payphone orders, payphone service providers should be considered as end-users for universal service purposes and should not be required to contribute to or receive support from universal service support mechanisms.[4163]

D. The *De Minimis* Exemption

1. Comments

449. Rural Electric Coop. suggests that eligibility for the *de minimis* exemption should be based on the "size of" telecommunications services relative to the company's total business rather than the overall size of the provider, which we interpret to mean the percentage of revenues derived from telecommunications services relative to overall revenue.[4164] Teleport argues that, in addition to exempting carriers if the administrator's cost of collecting the contribution exceeds the amount of the contribution, public policy would

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[4160] Ad Hoc comments at 16-17. *See also* GE Americom comments at 4-6 (citing Commission precedent that found sale of transponder capacity by domestic satellite operators on private contract basis as not constituting common carriage).

[4161] UTC comments at 9-10.

[4162] Letter from Michael K. Kellogg, RBOC Payphone Coalition, to William F. Caton, FCC, dated April 15, 1997 (RBOC Payphone Coalition *ex parte*).

[4163] RBOC Payphone Coalition *ex parte* at 2-3.

[4164] Rural Electric Coop. comments at 3.

favor exempting small carriers whose own costs of contributing to the support mechanism exceed the amount of the contribution that would be sent.[4165] Metricom urges the Commission to exempt unlicensed Part 15 providers because their contributions to universal service would likely be insignificant while the corresponding cost of collection would be high. Metricom asserts that the administrator would need to identify which Part 15 services are telecommunications services, identify the unlicensed providers, and calculate the contribution due.[4166]

450. Special Treatment for Carriers Ineligible to Receive Support. PageMart asserts that it is inequitable to require carriers that cannot receive support to contribute at the same rate as support-eligible carriers.[4167] Specifically, it notes that paging companies are not capable of providing all of the designated services and thus are ineligible to receive support. PageMart asserts that it would be unfair to require paging companies to compete against other companies that may be able to lower their prices as a result of receiving support funds. PageMart suggests that carriers that are ineligible to draw from the support mechanism should receive a 50 percent discount on what they otherwise would have had to contribute.[4168] PageNet suggests that an ineligible carrier's contribution be established in proportion to how many of the core services it is able to provide, or, alternatively, from how many services it

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[4165] Teleport comments at 11.

[4166] Metricom comments at 4-6.

[4167] PageMart comments at 7-8. *See also* Arch comments at 3-6; Celpage comments at 9-10; PageNet comments at 10-13; PNPA comments at 3-5; AirTouch reply comments at 25; Centennial reply comments at 3-4 (claiming unless its CMRS is a substitute for land line service, CMRS operator should make reduced contribution).

[4168] PageMart comments at 7-8. *See also* Celpage comments at 10 (CMRS contributions should be on a weighted basis); PNPA comments at 6; Arch reply comments at 3-4.

can receive benefits.[4169] Arch contends that paging companies are particularly unable to afford high contributions because they have low profit margins and customer demand for this service is particularly sensitive to price.[4170] Celpage argues that assessing contributions against paging companies represents an unconstitutional violation of paging carriers' due process and equal protection rights because paging carriers will derive no benefit from the universal service support mechanisms.[4171]

E. Scope of the Commission's Authority Over the Universal Service Support Mechanisms

1. Comments

451. Statutory Authority. Commenters disagree on whether intrastate telecommunications revenues should be included when calculating carrier contributions to the support mechanisms and on whether the Commission has the statutory authority to include those revenues.[4172] Sprint argues that the Act authorizes contributions based on inter- and

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[4169] PageNet comments at 12-13.

[4170] Arch comments at 5-6.

[4171] Celpage comments at 3-5. *See also* PNPA comments at 5-6.

[4172] Many commenters favor contributions based on interstate and intrastate telecommunications revenues. *See, e.g.,* Alaska PUC comments at 10-11; ALTS comments at 10-11; AT&T comments at 5; BellSouth comments at 10-11; Brooklyn Public Library comments at 8-9; Cathey, Hutton comments at 8; CompTel comments at 6-9; CPI comments at 6; Fred Williamson comments at 6; GSA comments at 11; GTE comments at 66; LCI comments at 3; MCI comments at 10-11; MFS comments at 40; NCTA comments at 28-29; NRPT comments at 6; New Jersey Advocate comments at 9; PacTel comments at 23-24; PageMart comments at 3-4; PageNet comments at 13; PNPA comments at 7; Roseville Tel. Co. comments at 2-5; RTC comments at 29-31; Teleport comments at 11; Time Warner comments at 8; United Utilities comments at 4; USTA comments at 17; Vermont PSB comments 1; West Virginia Consumer Advocate comments at 16; WorldCom comments at 41; ACTA reply comments at 6; Ad Hoc reply comments at 18-21; CWA reply comments at 12-13; Florida PSC

intrastate telecommunications revenues because section 254(d) instructs the Commission to require every telecommunications carrier that provides interstate telecommunications services to contribute, but does not specify or prohibit specific funding bases.[4173] AT&T notes that state universal service plans are discretionary and complementary to the federal program. AT&T argues that this structure forecloses any contention that Congress intended the federal mechanism to be based only on interstate revenues.[4174] Several commenters, however, assert that because section 254(d) explicitly identifies providers of "interstate telecommunications services" as contributors to the federal support mechanisms while section 254(f) explicitly identifies providers of "intrastate telecommunications services" as contributors to state support mechanisms there is no indication that Congress intended to change the current jurisdictional

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reply comments at 2-3; KMC reply comments at 6; Maine PUC reply comments at 2 (arguing not unlawful to base on inter- and intrastate revenues); U S West reply comments at 7-10; Vanguard reply comments at 8-9; Letter from Joel Shifman, Maine PUC and Peter Bluhm, Vermont PSB, to William F. Caton, FCC, dated April 9, 1997. Many commenters, however, favor contributions based on interstate revenues only. *See, e.g.*, Alabama PSC comments at 2-3; ALLTEL comments at 7; BANM comments at 12; Bell Atlantic comments at 4-7; Broadband PCS Alliance comments at 5; California PUC comments at 15-19; Celpage comments at 12; Cincinnati Bell comments at 6-7; Frontier comments at 14; Illinois CC comments at 7-8; Iowa Utilities Board comments at 5; Kansas CC comments at 6; Kentucky PSC comments at 2-3; Maryland PSC comments at 11; Missouri PSC comments at 4-7; New York DPS comments at 3-8; New York DOE comments at 1; Nextel comments at 7-8; NYNEX comments at 12; Puerto Rico Tel. Co. comments at 29-30; SBC comments at 18; SNET comments at 2-3; Utah PSC comments at 3; Western Alliance comments at 40-41; Bell Atlantic NYNEX joint reply comments at 5-6; Colorado PUC reply comments at 5; Georgia PSC reply comments at 37-42. In addition, State Commissioners McClure and Schoenfelder dissent from the Joint Board's recommendation that the Commission assess contributions on interstate and intrastate telecommunications. Dissenting Statement of Commissioners McClure and Schoenfelder on Funding of Universal Service, filed April 23, 1997.

[4173] Sprint comments at 9. *See also* ALTS comments at 10; AT&T comments at 6; CompTel comments at 6-7; GTE comments at 66-67; LCI comments at 4-5; Ad Hoc reply comments at 19.

[4174] AT&T comments at 6-7.

responsibilities between federal and state governments over inter- and intrastate revenues.[4175] New York DPS also argues that because Senate versions of the 1996 Act that explicitly placed interstate, intrastate, and international carriers within the category of mandatory contributors were not adopted, Congress did not intend to grant the Commission authority to include intrastate revenues within the contribution base.[4176] Puerto Rico Tel. Co. adds that section 254(h)(1)(B) also indicates that intrastate revenues should not be included because that section states that the Commission shall set interstate discounts and states intrastate discounts.[4177]

452. Commenters also disagree on whether section 2(b) precludes the Commission from including intrastate revenues in the contribution assessment base. Bell Atlantic asserts that section 2(b), which expressly withholds from the Commission jurisdiction over "charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communications services," prohibits the Commission from assessing contributions based on intrastate revenues.[4178] Maryland PSC claims that the Commission's including intrastate revenues would represent a change in current jurisdictional responsibilities between states and the Commission. The PSC states that section 601(c) requires that any changes in jurisdictional responsibilities be based on explicit statutory language, which it alleges is

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[4175] *See, e.g.,* Alabama PSC comments at 2; Bell Atlantic comments at 5-6; California Department of Consumer Affairs comments at 35-36; Illinois CC comments at 7; Kansas CC comments at 6-7; Kentucky PSC comments at 2-3; Maryland PSC comments at 15; Missouri PSC comments at 4-5; New York DPS comments at 4-5; NYNEX comments at 13-15; Ohio PUC comments at 21-22; Puerto Rico Tel. Co. comments at 29-30; Utah PSC comments at 3; Georgia PSC reply comments at 38-40.

[4176] New York DPS comments at 5-6. *See also* Georgia PSC reply comments at 40.

[4177] Puerto Rico Tel. Co. comments at 29.

[4178] Bell Atlantic comments at 5-6. *See also* Illinois CC comments at 7; Kansas CC comments at 7; Maryland PSC comments at 12; New York DPS comments at 7-8; Ohio PUC comments at 22-23; Utah PSC comments at 3-4; Georgia PSC reply comments at 37-42.

absent from section 254.[4179] Maryland PSC notes that earlier versions of the Act that would have revised section 2(b) to allow the Commission to assess contributions on intrastate revenues, were not adopted and contends that this omission indicates an intent not to grant the Commission jurisdiction over intrastate revenues.[4180] In addition, Maryland PSC claims that the Commission cannot advance broad federal policy if the effect is to disregard section 2(b)'s express jurisdictional limitations.[4181] Georgia PSC states that even if the Commission believes it has the authority to assess contributions against intrastate revenues, it should refrain from including intrastate revenues in the assessment base in order to prevent implementation delays caused by litigation surrounding this issue.[4182] On the other hand, Roseville Tel. Co. argues that inclusion of intrastate revenues would not represent federal intrastate ratemaking which would violate section 2(b). Roseville Tel. Co. asserts that the Commission would merely be calculating a federal charge on both inter- and intrastate revenues.[4183] Agreeing, Vermont PSB states there is a difference between the collection of funds to finance universal service programs and regulating the rates and conditions of intrastate service.[4184]

453. Equitable Effects. Commenters also disagree on whether inclusion of intrastate telecommunications revenues in the contribution base would be equitable. Sprint argues that contributions should be based on both inter- and intrastate telecommunications revenues because the support mechanism will largely support services that are intrastate in nature and

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[4179] Maryland PSC comments at 15. *See also* Kansas CC comments at 7; New York DPS comments at 7; Bell Atlantic NYNEX joint reply comments at 5-7.

[4180] Maryland PSC comments at 13.

[4181] Maryland PSC comments at 14.

[4182] Georgia PSC reply comments at 38.

[4183] Roseville Tel. Co. comments at 5.

[4184] Vermont PSB comments at 5. *See also* Ad Hoc reply comments at 19.

intrastate service providers will be among the mechanism's primary recipients.[4185] Sprint adds that as technologies converge, there will be a blurring between interstate and intrastate services, that will make it increasingly difficult to identify and audit interstate revenues only.[4186] PageMart states that including intrastate revenues will broaden the funding base, thus lessening the burden on all carriers, including small carriers, and will eliminate the incentive to classify revenues as intrastate.[4187] Bell Atlantic, however, asserts that intrastate ratepayers derive no benefit from sending a portion of their payments to subsidize service in other states and should not be used to "export" money to other states.[4188] Roseville Tel. Co. counters that all carriers benefit from the availability of a universal and ubiquitous telephone system, regardless of relative jurisdictional revenues, so spreading the contribution over all telecommunications services more closely matches costs and benefits than an interstate-only assessment.[4189] Roseville Tel. Co. also asserts that most carriers may experience a decrease in interstate revenues as a result of competition, so including intrastate revenues will help

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[4185] Sprint comments at 7-9. *See also* ALTS comments at 12; GTE comments at 69-70 (arguing that because support will fund offset reductions in intrastate and interstate rates, basing contributions on both inter- and intrastate revenues is reasonable); NCTA comments at 30; PageNet comments at 13-14; PNPA comments at 7; Time Warner comments at 9-10; USTA comments at 17; Vermont PSB comments at 5; KMC reply comments at 6.

[4186] Sprint comments at 7-9. *See also* ALTS comments at 12-13; AT&T comments at 5; BellSouth comments at 10-11 (stating sometimes jurisdiction of call is determined by customer's declaration or reporting, such as private line or special access, or is not determinable, such as Feature Group A); Brooklyn Public Library comments at 8-9; CPI comments at 10; GTE comments at 68; NCTA comments at 31; Time Warner comments at 10; Vermont PSB comments at 6; WorldCom comments at 42-43; GSA reply comments at 5-6.

[4187] PageMart comments at 3-4. *See also* ALTS comments at 12-13; GTE comments at 67; MCI comments at 10-11; PageNet comments at 13-14; USTA comments at 17; Ad Hoc reply comments at 20-21.

[4188] Bell Atlantic comments at 7.

[4189] Roseville Tel. Co. comments at 2-3. *See also* CPI comments at 11; MFS comments at 41; United Utilities comments at 4.

stabilize the funding base and prevent funding shortfalls.[4190] Roseville Tel. Co. adds that the current USF bases contributions on both the inter- and intrastate jurisdictions, because contributions are assessed on the number of presubscribed lines, which include intrastate assignments.[4191]

454. Vermont PSB argues that basing contributions on interstate revenues only produces inequitable and discriminatory results for small states with small populations.[4192] Vermont PSB alleges that states with smaller populations tend to place more calls out of state and hence would be disproportionately burdened if only interstate revenues were assessed. Additionally, using only interstate revenues for the federal support mechanism would most likely result in states assessing only intrastate revenue for state funds. This would also disadvantage states with smaller populations because they tend to have less intrastate revenue.[4193]

455. Several commenters voice concerns over the impact on state support programs of including intrastate revenues in the assessment base for the interstate fund. Kentucky PSC asserts that basing contributions to the federal fund on inter- and intrastate telecommunications revenues is not equitable because it will cause a double assessment of intrastate revenues that will hinder state programs to address universal service issues within

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[4190] Roseville Tel. Co. comments at 4-5. *See also* AT&T comments at 7.

[4191] Roseville Tel. Co. comments at 5. *See also* RTC comments at 30.

[4192] Vermont PSB comments at 7-8. *See also* RTC comments at 31; USTA comments at 17-18 (asserting that basing on interstate only will burden rural and high cost states).

[4193] Vermont PSB comments at 8.

state borders.[4194] Delaware PSC states that its concern is that no matter what revenue base is used, Delaware will be a net-payor state and that Delaware's contributions to the federal support mechanisms may impede that state's ability to provide universal service support within the state.[4195] LCI counters that the inclusion of intrastate revenues will not preclude states from establishing their own complementary universal service plans.[4196] USTA adds that when establishing their plans, states have the authority to assess inter- and intrastate revenues to calculate contributions to state support mechanisms.[4197] In addition, CPI asserts that assuming fixed state and federal support mechanisms and fixed net inter- and intrastate telecommunications revenues, using both revenue bases for both federal and state contribution bases will result in lower contribution percentages for both programs.[4198] To avoid the double assessment problem, NYNEX suggests that the inclusion of intrastate revenues be made voluntary. States that do not want their intrastate revenues to be included would not receive

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[4194] Kentucky PSC comments at 2-3. *See also* Alabama PSC comments at 2-3; Bell Atlantic comments at 7; California Department of Consumer Affairs comments at 36; Celpage comments at 12; Kansas CC comments at 6.

[4195] Delaware PSC comments at 4-6.

[4196] LCI comments at 5.

[4197] USTA comments at 18. *See also* Cathey, Hutton comments at 8 (stating only include inter- and intrastate revenues in federal program if states can act similarly); New Jersey Advocate comments at 9; Ohio PUC comments at 26 (stating if Commission determines it has authority to assess intrastate revenues, states must be given same authority); Colorado PUC reply comments at 5-6 (stating if Commission assesses intrastate revenues, it should issue declaratory ruling that states have similar authority over interstate revenues). *But see* Alabama PSC comments at 3-4 (noting states' jurisdiction over interstate revenues is not entirely clear).

[4198] CPI comments at 8.

support for intrastate costs from the federal support mechanism.[4199]

456. Competitive Neutrality. Furthermore, commenters disagree on whether the inclusion of intrastate revenues would have competitively neutral effects. Sprint argues that use of interstate revenues only is not competitively neutral because it exempts the majority of LEC revenues and places a disproportionate burden on IXCs, which Sprint claims is inconsistent with section 254(b)(4). Sprint also argues that the use of interstate revenues only will have detrimental economic consequences for interstate service providers. Sprint claims that if the overall contribution percentage is too high, it will depress the demand for interstate services, because the elasticity of demand for long distance services is greater than the elasticity of demand for local services.[4200] Sprint contends that because of this and the fact that LECs will receive support funds, LECs will not be forced to behave efficiently.[4201] CompTel argues that intrastate revenues must be included to avoid disproportionately burdening some classes of providers.[4202] CompTel argues that including intrastate revenues would not expand the base of contributing carriers and would better represent a carrier's total participation in the telecommunications market.[4203] If intrastate revenues were excluded, carriers with equal revenues would pay different contributions simply because one primarily

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[4199] NYNEX comments at 12. *See also* GSA reply comments at 6 (arguing if contributions limited to interstate revenues only, mechanism should support only interstate portion of services); MCI reply comments at 6 (arguing if contributions limited to interstate revenues, mechanism should support no more than 25 percent of loop costs).

[4200] *See* Jerry Hausman, Timothy Tardiff, & Alexander Belinfante, *The Breaking Up of AT&T and Changes in Telecommunications Regulation: What are the Lessons?*, 83 Am. Econ. Rev. 178 (1993).

[4201] Sprint comments at 7-9. *See also* Roseville Tel. Co. comments at 3-4.

[4202] CompTel comments at 7. *See also* LCI comments at 3-4; MFS comments at 41; Roseville Tel. Co. comments at 3; WorldCom comments at 43.

[4203] CompTel comments at 7-8. *See also* ALTS comments at 12.

provides interexchange services. CompTel asserts that the distortion caused by excluding intrastate revenues is significant. CompTel states that RBOCs will hold a significant advantage when entering the interexchange market because 75 percent of their total resources are intrastate and would be shielded from funding obligations.[4204]

457. On the other hand, Bell Atlantic contends that basing contributions on both inter- and intrastate revenues violates the principle of competitive neutrality because it would advantage intrastate-only carriers vis-a-vis intrastate carriers that happen to provide even a single interstate service.[4205] Georgia PSC adds that this competitive distortion might encourage companies to create new corporate entities that only provide intrastate services.[4206] California Department of Consumer Affairs agrees that basing contributions on both inter- and intrastate revenues is not competitively neutral or nondiscriminatory because consumers of carriers that provide inter- and intrastate services will pay more for intrastate services than consumers of carriers that provide intrastate services only.[4207] CPI argues that if only interstate revenues are calculated to determine federal contributions and a state does not implement a program, a carrier with intrastate revenues will support neither federal or state support mechanisms.[4208] Finally, COMSAT argues that revenues derived from international/foreign services should not be included in the federal contribution base.[4209]

[4204] CompTel comments at 7-8.

[4205] Bell Atlantic comments at 6. *See also* Cincinnati Bell comments at 6-7; Illinois CC comments at 8; Missouri PSC comments at 5-6; Utah PSC comments at 4; Bell Atlantic NYNEX joint reply comments at 7; Georgia PSC reply comments at 37.

[4206] Georgia PSC reply comments at 38.

[4207] California Department of Consumer Affairs comments at 37.

[4208] CPI comments at 9.

[4209] COMSAT comments at 4.

458. Recovery. NYNEX claims that the Commission cannot require carriers to include intrastate revenues in their contribution bases because it cannot assure that carriers will be able to recover the intrastate portion of their contribution through intrastate rate increases.[4210] Ohio PUC agrees and asserts that the Commission has no authority to require states to make exogenous adjustments to their respective intrastate price cap plans to take into account federal contributions based on intrastate revenues.[4211] Celpage suggests that, if intrastate revenues are included, carriers should be able to offset their federal contributions by payments made to state universal service support funds.[4212] GTE cautions that if the support mechanism is not large enough to fund offsetting reductions in both state and federal rates and is only sufficient to eliminate some portion of the support generated by interstate access, only interstate revenues should be included.[4213]

F. Basis for Assessing Contributions

1. Comments

459. Gross Revenues Net of Payments to Other Carriers. Several commenters support the Joint Board's recommendation to base contributions on gross revenues derived from telecommunications services net of payments to other carriers for telecommunications services (net telecommunications revenues).[4214] PageNet agrees with the Joint Board that this

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[4210] NYNEX comments at 25.

[4211] Ohio PUC reply comments at 17-18.

[4212] Celpage comments at 12.

[4213] GTE comments at 69-70.

[4214] *See, e.g.,* CPI comments at 7; Frontier comments at 14; GCI comments at 7; ITAA comments at 2; MFS comments at 40; PageMart comments at 7; PageNet comments at 10; PNPA comments at 3; Texas PUC comments at 11; TRA comments at 5-6; KMC reply comments at 5; NTIA reply comments at 10-15; WorldCom

formula eliminates the double payment problem and closely approximates a value-added-based contribution.[4215] TRA stresses that the net telecommunications revenues method is a competitively neutral way to eliminate the double payment problem and cites its use in allocating the cost of establishing telecommunications numbering administration arrangements and in recovering shared number portability costs.[4216] TRA also finds that the net telecommunications revenues method would be easy to administer since the Commission already collects common carrier regulatory fees on this basis. Ad Hoc adds that some economists consider the value-added method to be less complex, more competitively neutral, and based on sounder underlying principles than other assessment methods.[4217] TRA and Telco assert that resale carriers are constrained by market pressures from recovering contributions through rate increases.[4218] TRA, however, finds that contributions based on net telecommunications revenues help alleviate this concern.[4219] MFS proposes that the Commission clarify that only revenues derived from telecommunications services would be subject to contributions. Revenues derived from other services, such as enhanced or private services, would be exempt.[4220]

460. Bell Atlantic states that if contributions are assessed on net telecommunications revenues, carriers must be allowed to pass through their contributions to all of their

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reply comments at 8.

[4215] PageNet comments at 10. *See also* CPI comments at 7-8.

[4216] TRA comments at 7-8.

[4217] Ad Hoc reply comments at 8.

[4218] *See* Telco comments at 3-5; TRA comments at 9.

[4219] TRA comments at 9.

[4220] MFS comments at 40. *See also* DIRECTV comments at 6.

customers, both retail and wholesale, in order to ensure that wholesale customers, for example, purchasers of unbundled elements and resellers, make an equitable and nondiscriminatory contribution.[4221] If not, Bell Atlantic contends, contributions assessed in this method would discourage new entrants from building their own facilities.[4222] In addition, they assert that the Commission must give any contribution requirement "exogenous treatment"[4223] by allowing price cap LECs to increase their price cap indices by the full amount of the contribution or allow them to assess a separately identified universal service fund charge on access customers.[4224] Excel, on the other hand, argues that facilities-based carriers should not be allowed to pass through any of their contributions in wholesale rates

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[4221] Bell Atlantic comments at 8-9. *See also* GTE comments at 33-34; RT comments at 10 (alleging LECs must be able to pass on the cost of contribution to access and local service customers); TDS comments at 9-10. *But see* Telco comments at 4-5 (alleging that it would not be competitively neutral for facilities-based carriers to inflate interconnection, access charges or wholesale rates to recover their entire contribution and suggesting that carriers should look to sales to end-users for recovery); USTA comments at 43-45.

[4222] Bell Atlantic comments at 10. *See also* BANM comments at 11; SBC comments at 14-15.

[4223] Under our price cap rules for incumbent local exchange carriers, most changes in a carrier's costs of providing regulated services are treated as "endogenous," which means they do not result in adjustments to the carrier's price cap indices. Price cap carriers may claim adjustments to their indices based on exogenous costs, *i.e.*, costs triggered by administrative, legislative, or judicial actions that are beyond their control if those costs are not otherwise accounted for in the price cap formula. Such costs are defined as "exogenous." The Commission has found that those types of cost changes should be treated "exogenously" to ensure that price cap regulation does not lead to unreasonably high or unreasonably low rates. *See* Policy and Rules Concerning Rates for Dominant Carriers, *Second Report and Order*, 5 FCC Rcd 6786 (1990); 47 C.F.R. § 61.45(d).

[4224] Bell Atlantic comments at 10. *See also* Ameritech comments at 30 (arguing contributions should be regarded as exogenous cost changes for price cap carriers and, if intrastate support is involved, require state rate freeze plans to allow flow through); NYNEX comments at 22-23 (suggesting the Commission could establish new rate elements, such as a surcharge on interstate revenues, or new rate elements, such as per-subscriber charges); TDS comments at 11 (arguing that state regulators may not allow rural LECs to raise local rates so rural LECs may be unable to recover); GTE reply comments at 48 (arguing ILECs are constrained through regulatory process from adjusting rates).

charged to resellers. It argues that such a result would not be equitable or nondiscriminatory because wholesalers will be required to contribute to the support mechanisms directly.[4225] Rural Electric Coop. asserts that the net telecommunications revenues contribution method disadvantages utility companies that do not provide services to other carriers but merely provide physical facilities.[4226] BANM contends that this method allows resellers and other carriers, who predominantly use the facilities of others, to base contributions on their profit margins and to subtract payments that are effectively a substitute for building their own networks from their gross revenues, while facilities-based providers may not subtract the costs of building and maintaining their networks from their gross revenues.[4227] AirTouch asserts that the net telecommunications revenues method disadvantages carriers with higher prices per unit and may distort consumer choices because it is a traffic-sensitive measure.[4228] NYNEX claims that Congress intended interstate carriers to fund the support mechanism and most likely had the existing IXCs in mind. Thus, NYNEX states the result of net telecommunications revenues, which, it contends, shifts a large percentage of the funding burden to LECs, is contrary to congressional intent.[4229] KMC counters that, based on NYNEX's numbers, basing contributions on retail revenues would require IXCs to bear over 80 percent of the costs of a support mechanism that primarily benefits LECs, which it asserts

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[4225] Excel comments at 16-17.

[4226] Rural Electric Coop. comments at 2. *See also* BANM comments at 10 (claiming net telecommunications revenues disadvantages carriers that provide service wholly or predominantly over their own facilities).

[4227] BANM comments at 10-11. *See also* Cincinnati Bell comments at 4-5 (arguing carriers such as IXCs and resellers will contribute based on value/profit margin while LECs will contribute based on gross revenues); Minnesota Coalition comments at 37-38; SBC comments at 15-16; SNET comments at 3; USTA comments at 16; BellSouth reply comments at 5; CWA reply comments at 11-12.

[4228] AirTouch reply comments at 22-23.

[4229] NYNEX comments at 18-20.

would not be equitable.[4230]

461. Celpage suggests that paging companies' contributions be assessed on the basis of net income, i.e., gross revenues minus all expenses, because many CMRS carriers currently operate at a loss as a result of high infrastructure costs.[4231] They assert that high contributions may cause many paging companies, especially start-up companies, to go bankrupt or to sell their businesses.[4232] APC asserts that any revenues-based measure will be difficult to enforce as carriers begin to offer bundled services.[4233] For example, APC asks how a carrier should allocate its revenues when it offers a customer a subsidized phone with a bundled service of basic CMRS plus voicemail and caller ID.[4234] GTE adds that the net telecommunications revenues method will require carriers and the administrator to keep records that track all intermediate transactions.[4235]

462. Retail Revenues. Several carriers advocate assessing contributions based on retail telecommunications revenues.[4236] Bell Atlantic defines retail revenues as the revenues

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[4230] KMC reply comments at 5-6.

[4231] Celpage comments at 10-12. *See also* Aerial comments at 5 (arguing all carriers should be able to net out debt and fraud); Broadband PCS Alliance comments at 2-3 (citing cost of network build-out, license costs, fraudulent usage of communications facilities, discounts, promotional offerings and bad debt).

[4232] Celpage comments at 12.

[4233] APC comments at 7-8. *See also* Broadband PCS Alliance comments at 4; USTA comments at 16.

[4234] APC comments at 8.

[4235] GTE comments at 39.

[4236] *See, e.g.*, ALLTEL comments at 6; AT&T comments at 9; BANM comments at 10; Bell Atlantic comments at 10-11; BellSouth comments at 13-14; Cincinnati Bell comments at 5; Citizens Utilities comments at 28-29; GTE comments at 40; IXC comments at 4; Minnesota Coalition comments at 39; NRPT comments at 6;

received from end users, including their subscriber line charges.[4237] U S West claims that tracking retail revenues would be administratively easy if retail revenues were defined as revenues received from customers who are not telecommunications providers.[4238] Proponents of the retail revenues model claim that using retail revenues would avoid assessing double contributions on the revenues and would be more competitively neutral.[4239] Sprint argues that basing contributions on retail revenues would be explicit and simple to apply because the mechanism utilizes one less step than the net telecommunications revenues method. Sprint argues that LECs will pass through a portion of their contribution to the support mechanism to IXCs through higher access charges and IXCs will compensate by adjusting their long distance rates. It argues the retail-revenues method eliminates this pass-though step and allows each carrier to recover its contribution through an explicit surcharge on end user's bills.[4240] Bell Atlantic asserts that the ultimate impact on end users is the same whether contributions are based on retail or net telecommunications revenues, assuming carriers are allowed to pass through all of their contributions. Furthermore, Bell Atlantic claims most wholesale carriers also provide retail services, so wholesale carriers will not be exempt from contribution and basing contributions on retail revenues would be less complex than net telecommunications revenues.[4241] Bell Atlantic asserts that the Commission does not track

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NYNEX comments at 18; RTC comments at 34-35; SBC comments at 17; Sprint comments at 9-10; TCA comments at 8; TDS comments at 11-12; USTA comments at 16; Vermont PSB comments at 10-11; Bell Atlantic NYNEX joint reply comments at 3-4; CWA reply comments at 11; GSA reply comments at 7-8; Teleport reply comments at 8.

[4237] Bell Atlantic comments at 10-11.

[4238] U S West comments at 45.

[4239] *See, e.g.*, Sprint comments at 9-10.

[4240] Sprint comments at *9-10*. *See also* Bell Atlantic NYNEX joint reply comments at 3-4.

[4241] Bell Atlantic comments at 11. *See also* U S West comments at 42-45.

gross revenues from non-dominant carriers and does not receive comprehensive reports regarding payments between carriers, so the Commission's unfamiliarity with the retail model cannot justify our preferring net telecommunications revenues to retail.[4242] BANM asserts that assessing contributions based on carriers' retail revenues is more competitively neutral than the net telecommunications method because facilities-based and non-facilities-based carriers would contribute in proportion to the number of customers they serve.[4243]

463. Gross Revenues. Alliance for Distance Education suggests that contributions be based on carrier gross income.[4244] Cincinnati Bell argues that if retail revenues are not adopted, the Commission should adopt contributions based on gross revenues to ensure that all carriers contribute on the same basis.[4245] Ad Hoc, however, claims that basing contributions on gross revenues is an economically irrational method to calculate contributions because it would double count certain revenues.[4246]

464. Per-line. APC suggests that contributions should be based on objective factors, such as a carrier's number of subscribers or number of lines because such a measure would

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[4242] Bell Atlantic comments at 11.

[4243] BANM comments at 11.

[4244] Alliance for Distance Education comments at 1.

[4245] Cincinnati Bell comments at 5-6. *See also* BellSouth comments at 11.

[4246] Ad Hoc reply comments at 7-8. For example, under the gross revenues model, a reseller would include revenues derived from the provision of services to customer A. The facilities-based carrier that sells transmission capacity to the reseller would also include the revenues derived from the reseller for the reseller's purchase of transmission capacity to serve customer A. Thus, the revenues derived from customer A's call would be counted twice, once against the reseller and once against the facilities-based carrier.

not be subject to manipulation.[4247] AirTouch states that each subscriber to the PSTN, excluding those eligible for subsidies, could make a flat monthly payment toward universal service.[4248] Airtouch claims that a per-subscriber or per-access line contribution would be more efficient than a net telecommunications revenues contribution because it argues that fixed charges are less distortive of consumer choices than usage-based charges.[4249] Aerial adds that, for providers that are not eligible for universal service support, contributions should be based on the number of lines to which they are connected to the PSTN.[4250] Broadband PCS Alliance favors a lines-based measure over a revenues-based measure because CMRS carriers do not separate their revenues on an inter- and intrastate basis.[4251] AirTouch, however, notes that a per-minute contribution would be difficult to administer because most LECs bill on a flat-rate basis.[4252]

465. End-User Surcharge/Recovery. California Department of Consumer Affairs asserts that contributions should be disclosed and recovered through an explicit end-user

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[4247] APC comments at 9. *See also* Aerial comments at 2-3 (basing on per-line or number of dialable numbers is easily quantifiable and understood); Broadband PCS Alliance comments at 2-3; Sprint PCS comments at 10-11 (arguing in favor of a charge based on the number of subscribers served); AirTouch reply comments at 15-16 (arguing in favor of a charge based on each access line).

[4248] AirTouch reply comments at 15-16.

[4249] Airtouch reply comments at 15-20.

[4250] Aerial comments at 3.

[4251] Broadband PCS Alliance comments at 3-4.

[4252] AirTouch reply comments at 23-24.

surcharge.[4253] California Department of Consumer Affairs argues that a surcharge would not violate the statutory requirement that carriers contribute to the fund because even if contributions are based on gross revenues net of payments to other carriers, consumers will ultimately fund the support mechanism because most carriers will pass the cost of contribution to their subscribers. It claims that because the end result is the same, the Commission should mandate that carriers recover their contributions to the support mechanisms through an explicit end-user surcharge and provide more information to consumers about the services that they purchase.[4254] WorldCom asserts that anything other than a line item on a customer bill is an implicit charge that does not conform with the Act's express requirement of a "specific and predictable" support mechanism that is also "explicit and sufficient."[4255] AT&T contends that a surcharge, appearing as a line item on end users' bills, will require carriers to assess the cost of contribution proportionately across all of their services, rather than allowing them to allocate the cost of the subsidy strategically among their services.[4256] CompTel adds that prohibiting carriers from identifying that portion of consumer bills attributable to support contributions would violate their First Amendment rights and would serve no legitimate

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[4253] California Department of Consumer Affairs comments at 38-40. *See also* ALLTEL comments at 8; Ameritech comments at 31; AT&T comments at 8; BellSouth comments at 15-16; GTE comments at 36; LCI comments at 14; MFS comments at 112-13; NYNEX comments at 23-24; PacTel comments at 20-23; PageNet comments at 16; RTC comments at 35-36; SBC comments at 11-14; TDS comments at 6-8; U S West comments at 45-46; USTA comments at 22; WorldCom comments at 40-41; ACTA reply comments at 6; AirTouch reply comments at 20-21; ALTS reply comments at 5-8; Bell Atlantic NYNEX joint reply comments at 2-3; California SBA reply comments at 4-5; KMC reply comments at 4; SBC reply comments at 2-3.

[4254] California Department of Consumer Affairs comments at 39-40. *See also* WorldCom comments at 40-41; ALTS reply comments at 6-8.

[4255] WorldCom comments at 41. *See also* SBC comments at 11-13; TDS comments at 7-8, U S West comments at 46; BellSouth reply comments at 3.

[4256] AT&T comments at 8-9. *See also* TDS comments at 7; U S West comments at 46-47; ALTS reply comments at 5-6; BellSouth reply comments at 3.

purpose other than keeping consumers "in the dark."[4257] AT&T asserts that an explicit surcharge will also prevent the support mechanism from "spinning out of control" by creating public pressure to keep the overall subsidy levels in check.[4258] CompTel adds that if carriers were to include the cost of contribution in their charges for service, the contribution would be treated as revenue and would be subject to federal and state taxes, including support mechanism contributions.[4259] BellSouth states that a mandatory end-user surcharge would be easy to administer and would be competitively neutral because not all carriers are free to adjust rates, either because of contractual terms or state regulations.[4260] BellSouth recommends that each carrier would divide its contribution by its retail revenues in order to calculate the surcharge.[4261] PacTel states that, if the Commission prohibits carriers from recovering their contributions from their customers, the contribution would be an unconstitutional taking.[4262] TURN, however, argues that the support mechanism should not be financed through an end-user surcharge or through the SLC, because section 254 clearly stated that telecommunications carriers are responsible for the costs of the support mechanisms.[4263]

466. Universal Service Alliance does not advocate an end-user surcharge but states that the Commission should provide a specific and predictable means for carriers to recover

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[4257] CompTel comments at 16-17. *See also* WorldCom comments at 41.

[4258] AT&T reply comments at 7.

[4259] CompTel comments at 16-17. *See also* AirTouch comments at 27-30 (including intrastate revenues requires significant coordination with states, such as full offset mechanisms in order to prevent double taxation); Vermont PSB comments at 10.

[4260] BellSouth comments at 15-16.

[4261] BellSouth comments at 16.

[4262] PacTel comments at 21.

[4263] TURN comments at 8-9.

their contributions and that failure to do so will render contributions implicit to consumers and will make it more difficult for carriers to make infrastructure investments.[4264] GE Americom requests that the Commission make clear that carriers may pass all costs of their contributions to their customers and that mandatory contributions constitute a substantial cause that would provide a "public interest" justification for a carrier's filing of tariff changes or making contract changes.[4265] PacTel requests that the Commission clarify paragraph 808 of the Recommended Decision and state that purchasers of unbundled elements may be charged for universal service contributions to the extent they are also providers of interstate services as long as such charges are separately stated and assessed in a nondiscriminatory manner.[4266] Telco adds that universal service contributions cannot be included in the rates for unbundled elements because they are not a "cost" of providing the elements.[4267] NYNEX asserts that the Commission must enlist the cooperation of states to ensure that carriers may recover contributions that are based on intrastate revenues.[4268] On the other hand, the state Joint Board members assert that a mandated end-user surcharge would raise local rates and would usurp state commissions' "discretion to determine if the impostion of an end-user surcharge would render local rates unaffordable."[4269] CPI suggests that the Commission need not specify the means by which contributors to the support mechanisms will recover the

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[4264] Universal Service Alliance comments at 14-16. *See also* California SBA comments at 6-7.

[4265] GE Americom comments at 9-10. *See also* PacTel comments at 22-23; SBC comments at 13.

[4266] PacTel comments at 26-27.

[4267] Telco reply comments at 6-7.

[4268] NYNEX comments at 21.

[4269] State Members of the Federal-State Joint Board on Universal Service Comments on Recovery Mechanism for Universal Service Contributions at 1 (State Contributions Comments).

contribution from customers.[4270] CPI argues that the universal service contribution is a cost of doing business, like any other, and the treatment of that cost should be left to individual contributors. Some contributors may seek approval to raise rates, while others may determine that competition will prevent them from passing the cost to customers.[4271] The state Joint Board members add that it would be "premature" to judge how carriers in the telecommunications market would choose to recover their contributions during the transition to competitive markets.[4272] CPI states that the Commission should not mandate recovery through an end-user surcharge, but should also not exclude contributions from a regulated company's cost of service.[4273] California PUC urges the Commission not to make any conclusions or findings that would inhibit states from collecting state contributions through an end-user surcharge.[4274] California SBA, citing the National Regulatory Research Institute, notes that several states, such as Arizona, California, Colorado, Connecticut, Idaho, Kansas, Maine and Utah, rely on end-user surcharges to fund state support programs.[4275]

467. Offset. SNET argues that a sound support mechanism would not include revenues from the support mechanism to calculate carrier contributions. For example, SNET contends that discounts received from the support mechanism for the provision of services to schools and libraries should be excluded.[4276] NYNEX contends that carriers will not receive

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[4270] CPI reply comments at 15-17.

[4271] *See also* Letter from Thomas J. Long, TURN, to Chmn. Reed E. Hundt, FCC, dated March 4, 1997.

[4272] State Contributions Comments at 1.

[4273] CPI reply comments at 15-16.

[4274] California PUC comments at 13-15.

[4275] California SBA comments at 9.

[4276] SNET comments at 4.

the full amount of their discount if they are required to offset their discount against their contribution rather than receiving a reimbursement.[4277] Similarly, Western Alliance contends that carriers that receive support will not receive the full amount of support if they are required to contribute to the support mechanism. Western Alliance gives as an example the following: if a carrier is entitled to $500,000.00 in support but is required to contribute $75,000.00, it is effectively receiving $425,000.00 in support.[4278] TCA, however, finds allowing carriers to offset their contributions reasonable.[4279] Excel argues that if resellers are unable to become "eligible carriers" and if facilities-based carriers are not required to pass through subsidies to resellers, resellers providing universal service supported services should receive credits to reduce their universal service contributions.[4280]

G. Administrator of the Support Mechanisms

1. Comments

468. Third Party. A majority of commenters suggest that universal service support should be administered by a non-governmental, neutral third party.[4281] Sprint agrees that all four criteria recommended by the Joint Board are essential. In particular, it argues that

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[4277] NYNEX comments at 24.

[4278] Western Alliance comments at 39-40.

[4279] TCA comments at 9.

[4280] Excel comments at 15-16.

[4281] *See, e.g.*, ALTS comments at 19; AT&T comments at 26-27; Benton comments at 4; EDLINC comments at 19-20; GCI comments at 8; ITI comments at 3; New York Public Library comments at 3; North Dakota PSC comments at 3; PacTel comments at 60; Sprint comments at 10-11; Telco comments at 13; Teleport comments at 12; Texas PUC comments at 13; WorldCom comments at 42; ACTA reply comments at 6; Ameritech reply comments at 7.

allowing an entity affiliated with one service provider or industry segment to control the assignment and use of critical public resources could give rise to anticompetitive behavior. Sprint further argues that even the appearance of bias might lead to allegations of discrimination and unfair competitive practices.[4282] Ameritech agrees and maintains it would be inappropriate to have any industry or beneficiary membership on the board of the administrator.[4283] WorldCom agrees that a universal service advisory board should recommend a permanent administrator and states that appointing a balanced and objective universal service advisory board is crucial to selecting a neutral third-party administrator.[4284]

469. While some commenters agree that a third party should administer the support mechanisms, a few suggest modifications to the Joint Board's recommendation. EDLINC suggests that the Administrator's board of directors should contain representatives from schools and libraries.[4285] EarthLink asserts that the Joint Board's four criteria are overly broad and would preclude ISPs, who do not contribute to or receive support from the support mechanisms, from the permanent Administrator position.[4286] CNMI states that the universal service advisory board should administer the support mechanism.[4287] Benton suggests that the Administrator of the support mechanism work with a universal service marketing group to develop competitively neutral marketing strategies and to alert eligible individuals and

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[4282] Sprint comments at 10-11. *See also* ALTS comments at 18-19; Telco comments at 13.

[4283] Ameritech reply comments at 7.

[4284] WorldCom comments at 42. *See also* GCI comments at 8 (approving creation of advisory board to select Administrator).

[4285] EDLINC reply comments at 19.

[4286] Letter from Sky Dayton, EarthLink Network, to William F. Caton, FCC, dated February 10, 1997.

[4287] CNMI comments at 37-38.

institutions to the support mechanism.[4288] GE Americom requests the Commission to require any Administrator to keep carrier revenue information confidential.[4289]

470. National Exchange Carrier Association. A few commenters argue that NECA should be appointed the permanent administrator of the support mechanisms. TCA states that NECA's experience make it the best choice for the permanent Administrator.[4290] Although NYNEX does not recommend NECA, it agrees that NECA should be considered for the fund Administrator position if it makes changes to its membership and governance to eliminate the perception that it is biased towards ILECs. NYNEX suggests that NECA should separate its tariff-advocacy function from any of its support mechanism administration functions.[4291]

471. Administration of Support at the State Level. New York DOE questions whether any federal Administrator will be able to collect information and distribute funds at the state level.[4292] Colorado PUC agrees and argues that state PUCs should administer the support allocated to each state because they are knowledgeable about states' needs and have mechanisms in place to administer and implement the program.[4293] Colorado LEHTC

[4288] Benton comments at 4.

[4289] GE Americom comments at 11.

[4290] TCA comments at 9. *See also* Fred Williamson comments at 6; Iowa UB comments at 1-2; Minnesota Coalition comments at 44-46; PacTel comments at 60 (agreeing that NECA should be appointed temporary Administrator); RTC comments at 52; Western Alliance comments at 41-43; Wyoming PSC comments at 14.

[4291] NYNEX comments at 41-42. *See also* Frontier comments at 14; Iowa UB comments at 2; PacTel comments at 60.

[4292] New York DOE comments at 1.

[4293] Colorado PUC reply comments at 4. *See also* Colorado LEHTC reply comments at 4.

recommends that states be given the option of administering federal support in their states.[4294]

[4294] Colorado LEHTC reply comments at 4.

APPENDIX K
UNIVERSAL SERVICE PROCEEDING
February 1996 - May 1997

February 8, 1996	The Telecommunications Act of 1996 was enacted.
March 8, 1996	The Common Carrier Bureau released Notice of Proposed Rulemaking establishing Federal-State Joint Board on Universal Service (NPRM).
April 12, 1996	Federal-State Joint Board held first Open Meeting on Universal Service issues.
June 5, 1996	Federal-State Joint Board held Open Meeting on cost of support for rural, insular, and high cost areas, and low-income consumers, and alternatives for recovering costs and providing universal service support.
June 19, 1996	Federal-State Joint Board held Open Meeting on the types of functionalities schools, libraries, and rural health care providers require of telecommunications services and the cost of providing services to deliver those functionalities.
July 3, 1996	The Common Carrier Bureau released Public Notice seeking further comment on 72 specific questions in March 8, 1996, Universal Service Notice of Proposed Rulemaking (Further Comment Public Notice).
July 10, 1996	The Common Carrier Bureau released Public Notice seeking

	further comment on cost models (Cost Model Public Notice).
September 13, 1996	The Federal-State Joint Board held Open Meeting on insular areas and Alaska, and recovery of interstate loop costs.
October 17, 1996	The Federal-State Joint Board held Open Meeting on implementation of universal service support mechanisms for schools, libraries and health care providers.
November 7, 1996	The Federal-State Joint Board held Open Meeting on Universal Service Recommended Decision.
November 8, 1996	The Federal-State Joint Board released Recommended Decision on Universal Service.
November 18, 1996	The Common Carrier Bureau released Public Notice that requested comments on the Recommended Decision (Recommended Decision Public Notice).
December 12, 1996	The Common Carrier Bureau released a Public Notice setting the time and place for cost model workshops and setting procedures for interested parties to submit models to be discussed at workshops.
January 9, 1997	The Common Carrier Bureau released a Public Notice setting agenda and participants for the cost model workshops.
	The Common Carrier Bureau released a staff analysis on cost models and a Public Notice requesting comments on that staff analysis.

January 14-15, 1997	Staff workshops on cost models.
January 15, 1997	The Common Carrier Bureau released Public Notice requesting comments on the discussion in the cost model workshops.
February 3, 1997	The Common Carrier Bureau released Public Notice concerning frequently asked questions on Universal Service and the Snowe-Rockefeller Amendment.
May 7, 1997	The Commission adopts the First Report and Order on Universal Service.

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May 7, 1997	The Commission adopts the First Report and Order on Universal Service.

APPENDIX L
UNIVERSAL SERVICE PROCEEDING
May 1997 - 2001

May 7, 1997	The Commission adopts the First Report and Order on Universal Service.
June 30, 1997	The Commission will release by the end of June 1997 a Further Notice of Proposed Rulemaking on forward-looking economic cost methodology for non-rural carriers; local usage; support of single and multiple connections; and competitive bidding.
July 1, 1997	Administration of the program for school, libraries, and rural health care providers begins.
August 15, 1997	States inform the Commission of their intention to submit their own cost studies or rely on the federal mechanisms for determining forward-looking economic cost for non-rural carriers.
end of 1997	The Commission releases a Further Notice of Proposed Rulemaking, selecting forward-looking econimic cost model as platform for methodology for non-rural carriers, and seeking comments on that selection and input values.
	The Commission releases Further Notice of Proposed Rulemaking on whether modifications to the Commission's low-income programs are necessary to account for the presubscribed interexchange carrier charge adopted in the Access Reform

	Order.
January 1, 1998	Contributions and distribution of universal service support for schools, libraries, and rural health care providers and modified support mechanisms for high cost companies and low income consumers will begin.
February 6, 1998	State cost studies' filing deadline.
August 31, 1998	The Commission adopts a forward-looking economic cost methodology for non-rural carriers.
October 31, 1998	The Commission releases Further Notice of Proposed Rulemaking on forward-looking economic cost methodology for rural carriers.
January 1, 1999	Support to non-rural carriers calculated based on forward-looking economic cost mechanism. Rural carriers continue to recieve high cost loop support, DEM weighting, and LTS based on the existing mechanisms, with some modifications.
January 1, 2000	Inflation-adjusted nationwide loop cost implemented in high cost loop support mechanism for rural carriers.
2001	**Reconvene Joint Board to re-evaluate the definition and scope of supported services.**

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APPENDIX M
FUTURE PROCEEDINGS

• **Further Notice of Proposed Rulemaking**, on forward-looking economic cost mechanisms for non-rural carriers; local usage; support of single and multiple connections; and competitive bidding (by June 1997).

• **Further Notice of Proposed Rulemaking**, selecting forward-looking economic cost model as platform for methodology for non-rural carriers, and seeking comments on that selection and input values (by end of 1997).

• **Further Notice of Proposed Rulemaking**, on whether modifications to the Commission's low-income programs are necessary to account for the presubscribed interexchange carrier charge adopted in the Access Reform Order (by end of 1997).

• **Further Notice of Proposed Rulemaking**, on forward-looking cost mechanisms for rural carriers (by October 1998).

• **Joint Board**, to convene task force on forward-looking economic cost mechanisms for rural carriers.

• **Public Notice**, on infrastructure deployment for service to rural health care providers; rural health care needs in insular areas; and subscribership in insular areas.

• **Reconvene Federal-State Joint Board on Universal Service**, to examine implementation of section 254, including the definition and scope of supported services (2001).