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This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action. See MCI v. FCC, 515 F 2d 385 (D.C. Circ. 1975).

August 20, 1990

## FCC RELEASES SEMI-ANNUAL STUDY ON TELEPHONE TRENDS

The FCC has released its latest semi-annual report on Trends in Telephone Service. The report, which is a summary of information collected by the Commission in much more detailed and technical reports, includes information on telephone subscribership levels, costs, equal access, long-distance carriers and market shares, and lifeline programs.

## Among the findings are:

- -- During the first half of 1990, the Consumer Price Index for telephone service increased slightly, as increases in the cost of local service offset declines in the cost of long distance service. Local service prices rose at an annual rate of 4.4%, while the cost of interstate calling declined at a rate of 2.9% and the cost of state toll calls fell at a rate of 2.7%. As a result, the composite Consumer Price Index for telephone services increased at an annual rate of 1.9%. The nation's overall rate of inflation during the first half of 1990 was 6.1%. Thus, after adjusting for inflation, the real cost of telephone service was falling at a rate of about 4%.
- -- During the first half of 1990, rate reductions and refunds ordered by state regulatory commissions continued to exceed the dollar amount of rate increases granted and there were few significant rate cases pending.
- -- During 1990, 87 million households subscribe to telephone service, the highest number ever.
- -- About 90 percent of the nation's telephone lines have been converted to equal access.

This report is available for reference in Room 537, Industry Analysis Division, Common Carrier Bureau, 1919 M St., NW. Copies may be purchased from the Commission's duplicating contractor, ITS, at (202) 857-3800.

For further information, contact the Industry Analysis Division, Common Carrier Bureau, at (202) 632-0745

Trends in Telephone Service

Industry Analysis Division

Common Carrier Bureau

Federal Communications Commission

August 20, 1990

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#### INTRODUCTION:

The Federal Communications Commission, like most regulatory agencies, accumulates a great deal of information from the companies it regulates. Such information is essential to economic regulation, and is provided to the Commission both in the tariff process and in periodic reports. Most of this information deals with investments, revenues, expenses, and earnings. Only in recent years has the Commission begun to systematically collect a wider variety of information. This paper summarizes the range of information now available on a routine basis that extends beyond the essential information needed for economic regulation.

#### TELEPHONE SUBSCRIBERSHIP:

Under contract with the Federal Communications Commission, the Bureau of the Census includes questions on telephones as part of its Current Population Survey. This survey, which monitors demographic trends between the decennial censuses, has several strengths: it is conducted regularly by an independent and expert agency, the sample is very large and the questions are consistent. Thus, changes in the results can be compared over time with a great deal of confidence.

Over nine million households have been added to the nation's telephone system since these surveys began in November 1983 -- reflecting both an increase in the total number of households and a small, but statistically significant, increase in the percentage of households that subscribe to telephone service. The Census data also reflect slight, but statistically significant, seasonal variations in penetration rates. This pattern, after allowing for effects of the upward trend in the data, is an increase of 0.3% from November to March, followed by a decrease of 0.1% from March to July, followed by a decrease of 0.2% from July to November.

Table 1
Telephone Penetration in the U.S.

<u>Dat</u>	<u>e</u>	Households (millions)	Households with Telephones (millions)	Percentage with Telephones	Households without Telephones (millions)	Percentage without Telephones
November March July November	1984 1984 1984 1985 1985	85.8 86.0 86.6 87.4 87.4 88.2 88.0 89.5 90.7 91.3 91.8 92.6 93.6 93.8 93.9 94.2	78.4 78.9 79.3 79.9 80.2 81.0 81.6 82.5 83.1 83.4 83.7 84.3 85.7 85.7 87.9	91.4% 91.8 91.8 91.8 91.9 92.2 92.4 92.5 92.3 92.3 92.3 92.3 92.3 92.3 92.3 92.3 92.3	7.4 7.1 7.3 7.5 7.2 7.2 7.2 6.9 7.0 6.8 7.0 6.7 6.6 6.3 6.3	8.6% 8.2 8.4 8.6 8.2 8.1 7.8 7.6 7.7 7.7 7.1 7.5 7.0 6.7

# CHANGES IN THE PRICE OF TELEPHONE SERVICES:

The Bureau of Labor Statistics (BLS) collects a variety of information on telephone service as part of three separate programs — the Consumer Price Index (CPI), the Producer Price Index (PPI), and the Consumer Expenditure Survey. The average American household now spends about as much on long distance service as on local service and the Consumer Expenditure Survey, which is used to provide weights for consumer price indexes, indicates that telephone service accounts for about 2% of total consumer expenditures. This percentage has remained virtually unchanged over the past 15 years, during which there have been major changes in the telephone industry and in telephone usage. The following sections illustrate the range of information available on price indexes and rate levels.

### 1. Long Term Trends in Prices:

A price index for telephone services was first published in 1935. Since that time, telephone prices have tended to increase at a slower pace than most other prices. Table 2 shows long run changes in the Consumer Price Indexes for all items, all services, telephone services, each of the seven major categories that currently constitute the overall CPI, and several services that are often characterized as being public utilities. The price of telephone service has increased less rapidly than almost any other category when viewed over a long period of time.

Table 2

Long Term Trends in Prices
(Annual Rate of Change For Various Price Indexes)

ļ	1935 to 1989	1978 to 1989
CPI all goods and services	4.2%	5.5%
CPI all services	4.6	6.9
CPI telephone services	2.2	4.5
CPI major categories - food & beverages - housing - apparel & upkeep - transportation - medical care - entertainment - other goods & services	* 3.3 · 3.9 5.1 *	4.6 5.8 3.4 4.9 8.3 5.1 7.9
CPI public transportation CPI piped gas CPI electricity CPI sewer & water maintenance	5.0 3.8 2.4 *	9.0 5.8 5.7 7.3

<sup>\*</sup> Series not established until after 1935.

## 2. Comprehensive Price Indexes:

The CPI index of telephone services is based on a "market basket" intended to represent the telephone related expenditures of a typical urban household. It includes both local and long distance services. Changes in telephone prices tend to lag behind other price changes. Overall inflation in the American economy peaked in 1979 and 1980. In contrast, the price of telephone services rose most rapidly during the years 1981 through 1984. The annual rate of change is shown in Table 3 for the Gross National Product fixed weight price index (which reflects inflation throughout the economy), the overall CPI (which measures the impact of inflation on consumers), and the CPI for telephone services.

Table 3

Annual Rate of Change in Major Price Indexes

	GNP Fixed Weight Price Index	CPI: All Items	CPI: Telephone Services
1978	7.2	9.0%	0.9%
1979	8.8	13.3	0.7
1980	9.8	12.5	4.6
1981	8.5	8.9	11.7
1982	5.0	3.8	7.2
1983	3.9	<b>3.</b> 8	3.6
1984	3.7	3.9	9.2
1985	3.6	3.8	4.7
1986	2.3	1.1	2.7
1987	3.8	4.4	-1.3
1988	4.6	4.4	1.3
1989	4.0	4.6	-0.3
1990	5.3*	6.1*	1.9#

<sup>\*</sup> Annual rate of change from December 1989 through June 1990.

## Price Indexes for Local Service:

The Bureau of Labor Statistics publishes a number of price indexes related to local telephone service. The price indexes indicate percentage changes in the price of telephone services. The BLS does not publish the actual level of rates. The CPI index of local telephone charges is based on a broadly defined "market basket" that includes monthly service charges, message unit charges, leased equipment, installation, enhanced services (such as tone dialing and call waiting), taxes, subscriber line charges, and all other consumer expenditures associated with telephone services except long distance charges. In contrast, the PPI index of monthly It is based only on residential rates is much more narrowly defined. monthly service charges for residential service, optional touch tone service, and subscriber line charges. It excludes taxes and all other The annual rates of change for these two indexes of local expenditures. costs are presented in Table 4.

Table 4

Annual Rate of Change in Price Indexes
For Local Telephone Service

Million at the	For Local Telephone Service				
	CPI: All Local Charges	PPI: Monthly Service Charges For Residential Service			
1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989	1.4% 1.7 7.0 12.6 10.8 3.1 17.2 8.9 7.1 3.3 4.5 0.6 4.4*	3.1% 1.6 7.1 15.6 9.0 0.2 10.4 12.4 8.9 2.6 4.6 1.9 0.5*			

<sup>\*</sup> Annual rate of change from December 1989 through June 1990.

## 4. Price Indexes for Long Distance Service:

CPI data is available for intrastate toll and interstate toll services since December 1977. Table 5 presents the annual changes in these series.

Table 5

Annual Rate of Change in Price Indexes
For Long Distance Service

	CPI: Interstate Toll calls	CPI: Intrastate Toll calls
1978	-0.8%	1.3%
1979	-0.7	0.1
1980	3.4	- 0.6
1981	14.6	6.2
1982	2.6	4.2
1983	1.5	7.4
1984	-4.3	3.6
1985	-3.7	0.6
1986	-9.4	0.3
1987	-12.4	-3.0
1988	-4.2	-4.2
1989	-1.3	-2.6
1990	-2.9*	-2.7 <sup>*</sup>

<sup>\*</sup> Annual rate of change from December 1989 through June 1990.

#### 5. Local Rate Levels:

Local rates are regulated by state public utility commissions and vary so much from area to area that it is hard to characterize any rate as "typical". In most states, the Bell Operating Companies and larger independents charge higher rates in metropolitan areas than in rural areas — a pricing practice that dates back to the turn of the century and is traditionally justified in the belief that the value of the service provided is higher for subscribers with larger local calling areas. California differs from most states in that rates for residential customers are averaged throughout the state. There, the basic local rate is \$8.35 for areas served by Pacific Bell and \$9.75 for areas served by General of California.

Tables 6 and 7 present average local rates for residential and single-line business customers. They are based on surveys using the same sampling areas and weights used by the BLS in constructing the Consumer Price Index. In October 1989, the national average for flat rate residential service was \$17.54 monthly, including taxes and subscriber line charges. For residential customers, lower priced service alternatives are typically available, at a total monthly cost averaging \$10.24. These averages do not reflect the lower "lifeline" prices restricted to low income subscribers that are available in many areas.

Table 6

Average Monthly Residential Rates
(in October of each year)

	1983	1984	1985	1986	1987	1988	1989
Unlimited Local Calling Subscriber Line Charges Taxes	\$10.50 .00 <u>1.08</u> 11.58	\$12.10 .00 <u>1.25</u> 13.35	\$12.17 1.01 1.36 14.54	\$12.58 2.04 1.51 16.13	\$12.44 2.66 1.56 16.66	\$12.32 2.67 1.58 16.57	\$12.28 3.53 1.73 17.54
Lowest Generally Available Monthly Rate Subscriber Line Charges Taxes Total	\$ 5.37	\$ 5.62	\$ 5.75	\$ 5.96	\$ 5.81	\$ 5.67	\$ 5.66
	.00	.00	1.01	2.04	2.66	2.67	3.53
	.56	<u>.58</u>	70	<u>.84</u>	<u>.94</u>	.91	1.05
	5.93	6.20	7.46	8.84	9.41	9.25	10.24
Minimum Connection Charge	\$35.01	\$43.71	\$44.32	\$45.63	\$44.04	\$42.94	\$42.71
Taxes	1.75	2.19	2.22	2.28	2.20	2.11	2.24
Total	36.76	45.90	46.54	47.91	46.24	45.05	44.95

Table 7

Average Monthly Single-line Business Rates (in October of each year)

	1983	1984	1985	1986	1987	1988	1989
Representative Rate * Subscriber Line Charges Taxes Total	\$29.16	\$32.74	\$33.42	\$34.26	\$33.71	\$34.48	\$33.47
	.00	.00	1.01	2.04	2.68	2.69	3.55
	<u>3.35</u>	<u>3.77</u>	<u>3.96</u>	4.17	4.18	3.95	4.11
	33.51	36.51	38.39	40.47	40.57	40.12	41.13
Minimum Connection Charge	\$56.04	\$68.84	\$70.82	\$79.94	\$72.15	\$72.51	\$72.79
Taxes	3.08	<u>3.79</u>	3.90	4.01	<u>3.97</u>	3.92	<u>4.19</u>
Total	59.12	72.63	74.72	76.95	76.12	76.43	76.98

<sup>\*</sup> The "representative" rate is the monthly single-line rate for touch tone service with unlimited service where offered, and the measured service rate with 200 messages in other cities.

#### 6. Long Distance Rates:

In Table 8, the prices of several long distance calls are shown based on AT&T's tariffed rates during January 1984 and July 1990. During this period, AT&T's charges for directly dialed interstate calls have been reduced between 40% and 45% for the average residential customer.

Table 8

Changes in the Price of Directly Dialed Long Distance Calls (AT&T Prices from Washington, D.C.)

For calls to:		<u>F</u> January	ive minu July	ite calls Percentage	Ten minute calls January July Percenta		
Tor carro qui		1984	1990	change	1984	1990	change
New York City*	Day	\$2.14	\$1.07	-50.0%	\$4.09	\$2.15	-47.4%
	Evening	1.28	.72	-43.8	2.45	1.45	-40.8
	Night	.85	.60	-29.4	1.63	1.21	-25.8
Atlanta & Chicago**	Day	2.34	1.19	-49.1	4.49	2.39	-46.8
	Evening	1.40	.74	-47.1	2.69	1.49	-44.6
	Night	.93	.63	-32.3	1.79	1.26	-29.6
Los Angeles***	Day	2.70	1.24	-54.1	5.15	2.49	-51.7
	Evening	1.62	.74	-54.3	3.09	1.49	-51.8
	Night	1.08	.66	-38.9	2.06	1.32	-35.9

- \* The prices shown for calls between New York City and Washington, D.C. apply to all calls with distances between 125 and 292 miles.
- \*\* The prices shown apply to all calls with distances between 431 and 925 miles.
- \*\*\* The prices shown apply to all calls with distances between 1911 and 3000 miles.

#### 7. Outlook:

The price of telephone service has historically lagged behind inflation in the rest of the economy and, to a lesser extent, behind changes in interest rates. Overall inflation peaked in early 1980 and interest rates in 1981. Following historical patterns, the price of telephone service increased faster than the overall rate of inflation in 1981 and 1982. A one-time surge in prices occurred at the beginning of 1984 when the AT&T divestiture took place. With the exception of that surge, however, the price of telephone service rose at about the same rate as overall inflation during the years 1983 through 1986. Since then, there has been little change in the overall price of telephone service while inflation in the rest of the economy has continued at an annual rate of between 4% and 5%.

In late 1984, the national average monthly charge for residential flat rate service was \$12.10 -- compared with \$12.28 in late 1989. During this period the adoption of subscriber line charges caused monthly bills, including subscriber line charges and taxes, to increase at a somewhat higher rate than the overall rate of inflation. Total monthly bills for local service (including telephone company service charges, subscriber line charges, and taxes), increased about 30% compared with an increase in the overall CPI of slightly less than 20% during this period.

Barring a serious recession (or unexpected surge of inflation), there should be no significant increases in the cost of local service during the foreseeable future. The first reason for reaching this conclusion is the underlying stability of basic monthly service charges which, as indicated above, have remained essentially unchanged since 1984. The second is the fact that there are few important state rate cases pending — that is, proposals to raise basic service rates. Finally, there will be no further increases in federal subscriber line charges. Indeed, if the federal excise tax on telephone service expires as currently scheduled at the end of 1990, local service bills could conceivably be lower in 1991 than 1990. However, a variety of other tax considerations, added to the possibility that the excise tax will be extended and the fact that inflation is now in the range of 5% per year, make it more likely that local costs will gradually increase at a slower rate than overall inflation — perhaps something on the order of 2% per year.

Prices of directly dialed interstate calls have decreased between 40% and 45% since the beginning of 1984. The price reductions have resulted from increasing competition, rapid technological progress, the implementation of subscriber line charges, and a variety of other causes. Subscriber line charges have been the largest single factor in these reductions. As local telephone companies recovered an increased share of their local costs from monthly subscriber line charges, they were required to make matching reductions -- on a dollar for dollar basis -- to their charges imposed on long distance carriers. The long distance carriers, in turn, then passed these access charge reductions through to their customers in the form of reduced long distance rates. Because subscriber line charges will not be increased in the future, future reductions in long distance rates cannot be expected to continue at the same pace as in the past. Nevertheless, changes in long distance rates should continue reflect the forces of further technological progress and competition.

## STATE TELEPHONE RATE CASES:

The actions of state regulatory commissions provide important indicators of future rate changes. Rate cases completed by the state commissions tend to result in immediate rate changes. At the same time, the amount of rate relief requested by local telephone companies, but not yet acted upon by state commissions, provides an indicator of future rate changes.

At the time of divestiture, rate cases pending before state public utility commissions totaled nearly \$7 billion dollars. During the first half of 1984, state commissions completed action on a number of extraordinarily large rate cases. After the first half of 1984, the level of activity in state cases diminished substantially. Beginning in 1987, the dollar amount of rate reductions and refunds ordered by state commissions has exceeded the dollar amount of rate increases authorized. New York Telephone reports rate cases of nearly one billion dollars pending before the New York Public Utilities Commission. The total amount of rate increases pending before other public utility commissions is only about \$100 million. Since it typically takes more than a year for a rate case to be completed, the low level of pending cases -- viewed in conjunction with the recent reductions ordered by state commissions -- should indicate a low level of state and local rate changes during at least the next year.

Table 9

State Telephone Rate Cases (Millions of Dollars)

		Revenue Increases Requested During Quarter	Revenue Changes Ordered During Quarter	Requests Pending at End of Quarter
1984	First quarter Second quarter Third quarter Fourth quarter Total	\$ 627.7 93.7 2,242.9 1,059.4 4,023.7	\$ 1,175.6 2,054.2 284.5 361.2 3,875.5	\$ 4,851.9 1,675.6 3,387.5 3,672.3
1985	First quarter Second quarter Third quarter Fourth quarter Total	976.6 172.4 108.3 <u>369.9</u> 1,627.2	246.3 314.8 286.5 307.3 1,154.9	3,779.0 3,316.3 2,664.2 1,437.3
1986	First quarter Second quarter Third quarter Fourth quarter Total	155.1 249.9 230.0 8.7 643.7	58.0 57.9 173.3 .8 290.0	766.2 362.0 315.7 322.6
1987	First quarter Second quarter Third quarter Fourth quarter Total	7.0 19.4 62.0 <u>57.9</u> 146.3	-33.1 -112.0 -94.0 <u>-279.9</u> -519.0	67.1 47.7 94.0 124.7
1988	First quarter Second quarter Third quarter Fourth quarter Total	46.4 155.2 140.9 <u>15.4</u> 357.9	-215.3 -232.4 -387.8 -530.9 -1,366.4	148.5 301.6 377.0 198.5
1989	First quarter Second quarter Third quarter Fourth quarter Total	52.1 25.8 362.9 6.2 447.0	-203.7 -107.6 -48.9 <u>-478.3</u> -838.5	140.6 148.7 490.4 419.5
1990	First quarter Second quarter	1,030.8 58.3	-134.8 -294.9	1,036.9 1,088.4

#### EQUAL ACCESS:

The Bell Operating Companies serve about 80% of the nation's telephone lines. Under the Modification of Final Judgment that settled the AT&T antitrust case, the Bell Operating Companies are obligated to offer equal access to all long distance carriers. The process began in 1984 and the Bell Operating Companies have converted 95% of their lines to equal access. The remaining lines are at smaller, older offices where equal access is being provided when the offices are converted to more modern equipment. Independent telephone companies, which serve 20% of the nation's lines, are converting offices to equal access at a less rapid pace. Overall, about 90% of the nation's telephone lines have been converted to equal access.

4

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Table 10

Equal Access Conversion Schedule (Percentage of Lines Converted)

Date	Bell Companies	Other Large Companies*	Small Companies	Total Industry
3Q84	1.1%	0.0%	0.0%	0.9%
4Q84	3.8	1.5	0.0	3.2
1Q85	12.1	2.4	0.0	9.8
2Q85	26.9	3.7	0.0	21.4
3Q85	43.0	4.0	0.0	34.0
4Q85	50.9	4.9	0.5	40.2
1Q86	56.8	11.9	2.7	46.0
2Q86	61.9	18.4	4.0	51.0
3Q86	71.5	27.4	5.9	59.9
4Q86	74.3	38.3	7.1	63.8
1Q87	76.4	45.3	9.1	66.6
2Q87	77.7	50.9	10.9	68.7
3Q87	80.4	57.9	12.7	72.0
4Q87	84.7	64.0	14.9	76.3
1Q88	86.5	66.2	15.8	78.1
2Q88	87.4	68.5	17.3	79.3
3Q88	88.5	71.3	18.6	80.6
4Q88	91.3	74.1	20.3	83.4
1Q89	92.6	76.5	22.0	84.8
2Q89	93.4	77.6	23.1	85.7
3Q89	94.1	79.1	24.3	86.5
4Q89	95.2	80.9	25.5	87.7
1Q90	95.7	81.9	26.5	88.4
2Q90	96.0	83.3	29.0	89.0
3Q90	96.4	83.8	30.3	89.5
4Q90	96.9	85.6	33.1	90.4
1Q91	97.1	85.9	33.8	90.6
2Q91	97.2	86.5	35.3	90.9

<sup>\*</sup> Companies with \$100 million in annual operating revenues.

#### INTERSTATE CALLING:

"Switched access minutes" are those minutes transmitted by long distance carriers that also use the distribution networks of local telephone companies. The measure includes minutes associated with ordinary long distance calls and the "open end" of WATS-like calls. It excludes calls made on private telecommunications systems, on leased lines, and minutes on the "closed end" of WATS-like calls.

Measures of interstate switched access minutes first became available in 1984. Table 11 shows the total number of interstate switched access minutes handled by all long distance carriers. The number of minutes has grown steadily since mid-1984, stemming from a combination of overall economic growth, price reductions, and extensive advertising. Premium minutes have grown rapidly, reflecting both strong underlying traffic growth and the conversion of offices to equal access. Non-premium minutes '(minutes handled by AT&T's competitors in areas where equal access has not yet been provided) continue to decline as the process of conversion to equal access continues.

Table 11
Interstate Switched Access Minutes (in Billions)

		Premium Minutes	Non-Premium Minutes	Total Minutes
	ird Quarter ourth Quarter	32.0 33.6	5.5 6.0	37.5 39.6
Se Th	rst Quarter cond Quarter ird Quarter urth Qurter	32.9 34.9 36.6 38.0	6.6 6.6 6.2 5.3	39.6 41.5 42.8 43.3
Se Th	rst Quarter cond Quarter ird Quarter urth Quarter	38.8 41.0 43.2 45.5	4.3 3.8 3.5 3.0	43.0 44.8 46.7 48.5
Se Th	rst Quarter cond Quarter ird Quarter urth Quarter	48.0 49.3 52.1 54.5	3.2 3.1 2.9 2.6	51.2 52.5 55.0 57.0
Sec Thi	rst Quarter cond Quarter ird Quarter urth Quarter	56.7 57.3 59.8 62.0	2.4 2.3 2.3 2.2	59.1 59.6 62.1 64.3
Sec Thi	rst Quarter cond Quarter ird Quarter urth Quarter	64.8 66.6 67.8 70.8	2.1 2.0 1.9	66.9 68.6 69.7 72.7
1990 Fir	est Quarter	71.5	1.7	73.2
Annual Ra	ite of Growth	15.8%	-19.0%	12.9%

### LONG DISTANCE CARRIERS:

In 1983, the Federal Communications Commission decided to "forbear" from regulating "non-dominant" long distance carriers. While AT&T remains subject to comprehensive economic regulation, most other carriers have been exempted from the burdens of regulation. As a result, the Commission collects no data from most carriers. Nevertheless, we have two different sources of information on the number of long distance competitors. The first source, Carrier Identification Codes, provides information on the number of firms seeking to acquire certain types of interconnecting arrangements with local telephone companies. Any firm that seeks to use "trunk side" connections with local telephone companies is provided a three digit identification code so that traffic can be efficiently routed.

All firms seeking to purchase either "Feature Group B" or "Feature Group D" access from local telephone companies are assigned Carrier Identification Codes by the administrators of the North American Numbering Plan. While most firms acquiring Carrier Identification Codes compete in the long distance market, some firms apparently acquire such codes for other purposes. We believe that the number of firms seeking and obtaining these codes provides the best information available on the entry of new firms into the long distance market during the period prior to 1986:

Table 12

Number of Firms with Carrier Identification Codes

June 30,	1982:	13
December	31, 1982:	11
June 30,	1983:	25
December	31, 1983:	42
June 30,	1984:	65
December	31, 1984:	123
June 30,	1985:	179
December	31, 1985:	217
June 30,	1986:	276
December	31, 1986:	334
June 30,	1987:	397
December	31, 1987:	451
June 30,	1988:	489
December	31, 1988:	493
June 30,	1989:	544
December	31, 1989:	577
June 30,	1990:	611

Beginning in 1986, we have received information provided by each of the seven Regional Holding Companies that were formed as a result of the AT&T divestiture. Each regional company has provided a list of carriers purchasing "switched access" from their Bell Operating Companies. Because all long distance carriers purchase access from local telephone companies, the number of such carriers can be supplied by local telephone companies without imposing reporting requirements on long distance carriers.

Table 13 provides information on the total number of long distance carriers purchasing switched access and the total number of firms purchasing equal access. This table shows a drop in the number of carriers between December 1989 and January 1990. There are two primary reasons for this First, we have received information from Bell Communications decline. Research that allowed us to eliminate a number of firms that have disappeared through mergers even though they are still listed by the regional companies as purchasing access. Second, we have eliminated approximately 37 firms which we believe are purchasing access for their own internal corporate communications rather than for the provision of long distance service. While the purchase of certain types of access for internal corporate communications is by no means new, we had not observed the purchase of equal access for non-carrier services until late 1989. most states, there was no decline in the number of carriers during the months before December 1989 or after January 1990. Thus, we believe the apparent decline between December and January is due to the above factors rather than an actual decline in the number of long distance carriers.

Table 13 Number of Long Distance Telephone Carriers

		Carriers use Equal		All Carriers
1986				
	March	169		*
	June	183		5
	September	190		506
	December	210		533
1987				
1901	March	211		<b>5</b> ( )
	June	213		5 <u>6</u> 1
	September	224		- •
	December	239		540
00				<b>3.</b>
1988		_		
	March	238		511
	June	248		519
	September	256		506
	December	266		510
1989				
	March	274		509
	June	•		8
	September	#		#
	December	316		514
1990				
1770	January	290*	• <b>#</b>	
	February	288 <b>=</b>		
	March	289 <b>=</b>		466 <b>**</b>
	VII	209-	· <del>-</del>	400==

<sup>\*</sup> Data not available.\*\* Revised data series. See text.

Table 14 shows the number of long distance carriers that purchase access in each state. Information is provided for 47 states and the District of Columbia. Three states -- Alaska, Connecticut, and Hawaii -- are not served by the Bell Operating Companies and are therefore not represented in the table.

Within any state, a carrier purchasing access may concentrate its efforts in serving only a few exchanges or a small portion of the state. Thus, the number of carriers available to a particular customer will tend to be far smaller than the number of long distance carriers that purchase access somewhere in the state. Since the larger long distance carriers serve many states, they are recorded as purchasing access in each state. Because of this, the state figures can not be added to estimate a national total of long distance carriers.

Table 14

Carriers Purchasing Access
From Bell Operating Companies: March 1990

State	Switched Access	Equal Access	State	Switched Access	Equal Access
Alabama	32	17	Nebraska	36	21
Arizona	59	34	Nevada	35	25
Arkansas	35	16	New Hampshire		
California	110	38	New Jersey	7 <b>6</b>	34
Colorado	86	32	New Mexico	43	34
Delaware	21	5	New York	124	39
District of Columbia	74	29	North Carolin		18
Florida	75	27	North Dakota	23	13
Georgia	75	23	Ohio		37
Idaho	31	24	Oklahoma	50	24
Illinois	95	36	Oregon	42	24
Indiana	54	27	Pennsylvania	88	35
Іона	35	20	Rhode Island	25	17
Kansas	36	19	South Carolin		14
Kentucky	34	21	South Dakota	28	17
Louisiana	49	24	Tennessee	48	23
Maine	16	11	Texas	146	76
Maryland	53	25	Utah	45	26
Massachusetts	56	24	Vermont	15	12
Michigan	67	26	Virginia	41	21
Minnesota	68	27	Washington	<b>5</b> 9	27
Mississippi	32	17	West Virginia	15	12
Missouri	73	25	Wisconsin	54	34
Montana	32	24	Wyoming	20	17
			Unduplicated		
			Total	466	<b>28</b> 9

#### LONG DISTANCE MARKET SHARES:

#### 1. Interstate Switched Minutes

Table 15 shows interstate access minutes handled by AT&T, by other carriers, and industry totals. For the period since mid-1984, industry traffic volume has grown at an annual rate of 13%. AT&T's traffic has grown at a rate slower than the industry average and the remaining traffic, handled by all other carriers, has continued to grow at a rapid rate -- averaging more than 30% per year.

The result of an AT&T growth rate slower than the industry average has been a declining market share for AT&T. AT&T's market share is shown in Table 16. AT&T's share of the overall market for interstate switched minutes declined from over 80% in late 1984 to 64% in the first quarter of 1990. At the same time, its share of the premium market has declined from virtually 100% in late 1984 (the first scattered offices began to be converted to equal access in the summer of 1984) to about 66% of the equal access market by early 1990.

Table 15
Interstate Switched Access Minutes
(in Billions)

	± ↑			
		AT&T	Other Carriers	Total Industry
1984:	Third Quarter	31.6	5.9	37.5
	Fourth Quarter	31.8	7.8	39.6
1985:	First Quarter	32.8	6.7	39.6
	Second Quarter	33.3	8.2	41.5
	Third Quarter	33.8	9.0	42.8
	Fourth Quarter	33.4	9.9	43.3
1986:	First Quarter	34.2	8.8	43.0
	Second Quarter	34.7	10.1	44.8
	Third Quarter	35.8	10.9	46.7
	Fourth Quarter	35.9	12.6	48.5
1987:	First Quarter	37.4	13.9	51.2
	Second Quarter	38.6	13.8	52.5
	Third Quarter	39.2	15.9	55.0
	Fourth Quarter	40.1	16.9	57.0
1988:	First Quarter	41.2	17.9	59.1
	Second Quarter	41.1	18.5	59.6
	Third Quarter	42.3	19.8	62.1
	Fourth Quarter	43.0	21.3	64.3
1989:	First Quarter	44.2	22.7	66.9
	Second Quarter	44.4	24.2	68.6
	Third Quarter	44.9	24.8	69.7
	Fourth Quarter	46.4	26.3	72.7
1990:	First Quarter	47.1	26.2	73.2
Annual F	Nate of Growth:	7.5%	31.0%	12.9%

Table 16

AT&T Share of Interstate Minutes

		Premium Minutes	All Minutes
1984:	Third Quarter	98.7%	84.2 <b>%</b>
	Fourth Quarter	94.6	80.2
1985:	First Quarter	99.8	83.0
	Second Quarter	95.5	80.3
	Third Quarter	92.1	78.9
	Fourth Quarter	87.9	77.7
1986:	First Quarter	88.2	79.5
	Second Quarter	84.7	77.5
	Third Quarter	82.8	76.6
	Fourth Quarter	78.9	74.0
1987:	First Quarter	77.8	72.9
	Second Quarter	78.3	73.7
	Third Quarter	75.2	71.2
	Fourth Quarter	73.7	70.4
1988:	First Quarter	72.7	69.8
	Second Quarter	71.7	69.0
	Third Quarter	70.7	68.1
	Fourth Quarter	69.3	66.9
1989:	First Quarter	68.2	66.1
	Second Quarter	66.7	64.7
	Third Quarter	66.2	64.4
	Fourth Quarter	65.5	63.8
1990:	First Quarter	65.8	64.3
Annual F	ate of Growth:	-7.1%	-4.8%

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## 2. Total Toll Revenues

Long distance telephone companies with over \$100 million in annual revenues report their annual revenues to the FCC. The revenues reported include both interstate and intrastate revenues. For most carriers, no information is available that separates interstate from intrastate service. In 1989, services provided by long distance carriers generated \$50 billion in revenues. During the past few years, revenues have grown at a far slower pace than the volume of long distance calling because of sharp price cuts. Indeed, AT&T's total toll revenues have declined since 1985 because the growth in calling volume was not sufficient to offset the effect of lower prices.

Long distance revenues are shown in Table 17. During 1984, AT&T's toll revenues of \$35 billion accounted for about 90% of the revenues received by all long distance carriers. By 1989, with its revenues virtually unchanged, its share of total revenues had fallen to less than 70%. AT&T's share of revenue exceeds its share of minutes due primarily to the provision of a larger proportion of operator handled and international calls (both of which bear higher prices than ordinary direct dial calls).

The largest local telephone companies, which provide a substantial amount of intrastate toll service, also file annual reports with the Commission. The total toll market, including the short haul toll traffic handled entirely by local telephone companies, exceeded \$60 billion in 1989, with AT&T accounting for slightly more than 50% of the total.

Table 17

Total Toll Service Revenues
(Dollar Amounts Shown In Millions)

COMPANY	1982	1983	1984	1985	1986	1987	1988	1989
AT&T Communications			34,935	36,770	36,514	35,219	35,407	34,277
MCI Telecommunications	802	1,326	1,761	2,331	3,372	3,938	4,886	6,171
US Sprint	393	740	1,052	1,509	2,132	2,592	3,405	4,320
Telecom*USA			105	201	291	396	524	713
TIT Communication Services, Inc.	128	163	162	241	282	269	282	404
Allnet				436	450	395	394	334
Advanced Telecommunications Corp.			72	86	124	162	178	326
Alascom	238	257	255	271	267	262	272	283
Williams Telecommunications Group								282
Cable & Wireless				146	171	180	218	275
International Telecharge, Inc.								275
Litel Telecommunications, Inc.								197
Telesphere Network, Inc.								192
National Telephone Services, Inc.								150
Metromedia Long Distance								127
IDDS Communications, Inc.								110
RCI Corporation/RCI Network Services								104
Others	263	443	414	639	992	1,108	1,347	2,327
Total Long Distance Carriers			38,756	42,630	44,595	44,521	46,914	50,867
AT&T Communications Share: MCI Telecommunications Share: US Sprint Share:			90.1% 4.5% 2.7%	86.3% 5.5% 3.5%	81.9% 7.6% 4.8%	79.1% 8.8% 5.8%	75.5% 10.4% 7.3%	67.4% 12.1% 8.5%
Bell Operating Companies Other Local Telephone Companies			9,037 3,364	9,026 3,159	9,599 3,304	10,268 3,468	10,668 4,445	10,549 4,639
Total: Local Exchange Companies			12,401	12,185	12,903	13,736	15,113	15,188
Total: All Carriers	43,919	46,970	51,157	54,815	57,498	58,257	62,027	66,055
AT&T Communications Share: MCI Telecommunications Share: US Sprint Share:			68.3% 3.4% 2.1%	67.1% 4.3% 2.8%	63.5% 5.9% 3.7%	60.5% 6.8% 4.4%	57.1% 7.9% 5.5%	51.9% 9.3% 6.5%

#### 3. "Presubscribed" Lines

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Telephone lines are said to be "presubscribed" to the long distance carrier that receives the ordinary long distance calls placed on the line. Where equal access is available, each customer is asked to choose a long distance carrier. Thereafter, all of the customer's long distance calls will be routed to the chosen long distance carrier unless the customer alters normal dialing procedure -- for example, accessing an alternate long distance carrier by dialing special codes. Where equal access is not yet available, the use of long distance carriers other than AT&T usually requires dialing a 7 digit local telephone number and entering a personal identification number. In areas where equal access is not yet available, all lines are considered to be presubscribed to AT&T.

on the number of lines presubscribed to each long distance carrier. NECA collects the information from each local telephone company in order to comply with FCC rules that require NECA to recover certain expenses from the larger long distance carriers. This information is shown in Table 18.

In June 1989, NECA reported 126 million presubscribed lines in the United States. Special access lines, WATS lines, and other specialized lines are not included in the counts of presubscribed lines. The number of lines presubscribed to AT&T has fallen while the number of lines presubscribed to other carriers has grown rapidly. During 1989, about 79% of lines were presubscribed to AT&T, 11% to MCI, and 6% to US Sprint. Over two hundred smaller carriers, serving a total of 5 million lines, account for the remainder of the industry.

AT&T's percentage of lines is higher than its share of revenues or minutes because all lines in areas that do not yet have equal access are counted as AT&T lines. Also, many customers who make few long distance calls have not chosen an alternative carrier and, as a result, the number of calls per customer line is far lower for AT&T than for other carriers.

Table 18
"Presubscribed" Telephone Lines by Carrier

	DEC. 1987	JUNE 1988	DEC. 1988	JUNE 1989
Total Number of Carriers with Presubscribed Lines	223	242	253	276
Number of Presubscribed Lines:				
AT&T MCI US Sprint Other Carriers	101,652,678 9,990,561 5,836,179 3,987,082	100,832,869 10,941,207 6,382,372 4,508,967	100,205,677 12,149,921 7,197,136 4,808,095	100,006,827 13,671,625 7,674,605 5,393,478
Total Industry Lines	121,466,500	122,665,415	124,360,829	126,746,535
Annual Change:				
AT&T		-	-1.42%	-0.82%
MCI	-	-	21.61%	24.96%
US Sprint	-	-	23.32%	20.25%
Other Carriers		****	20.59%	19.62%
Total Industry Lines	- <del></del>	-	2.38%	3.33%
Percentage Share of Total Lines:			÷	
AT&T	83.69%	82.20%	80.58%	78.90%
MCI	8.22	8.92	9.77	10.79
US Sprint	4.80	5.20	5.79	6.06
Other Carrires	3.28	3.68	3.87	4.26
Total Industry Lines	100.00	100.00	100.00	100.00

### LIFELINE ASSISTANCE PROGRAMS:

The FCC has established two types of assistance programs for low income subscribers. Programs of the first type are designed to assist poor subscribers in affording the monthly costs of service, and are called "lifeline" plans. Other programs -- connection assistance or "Link Up" programs -- are designed to help low income subscribers defray installation charges in order to begin receiving telephone service. Participating states have wide latitude in selecting means tests and shaping the benefits of the programs. By mid-1990, programs had been established in 48 states, the District of Columbia and the Commonwealth of Puerto Rico. The states, and the date of FCC certification for each program, are indicated in Table 19.

Table 19

Lifeline and Connection Assistance Programs:

Date of Approval\*

State	Lifeline	Link Up
Alabama		10/01/87
Arizona	11/14/86	1/15/88
Arkansas	5/22/86	10/01/87
California	1/01/85**	
Colorado	5/15/90***	1/16/90***
Connecticut		11/13/87
Distict of Columbia	3/18/86	8/19/87
Florida		8/01/88
Georgia		5/25/90
Hawaii	10/27/86	8/07/89
Idaho	7/24/87	9/07/88
Illinois		9/18/89
Indiana		4/25/88
Iowa		3/10/88
Kansas		1/27/88
Kentucky		1/24/87
Louisiana		10/25/88
Maine	8/11/87	8/11/87
Maryland	5/22/86	10/01/87
Massachusetts	2/09/90	2/09/90
Michigan	1/24/89	1/24/89
Minnesota	1/27/88	1/27/88
Mississippi		4/27/88
Missouri	10/01/87	12/28/87
Montana	8/11/87	8/11/87
Nebraska		3/17/88
Nevada	4/28/87	8/16/88
New Hampshire		11/03/88
New Jersey		11/03/87
New Mexico	7/13/87	4/01/87
New York	3/14/87	3/14/87
North Carolina	5/22/86	10/19/87

North Dakota	12/24/87	12/18/89
Ohio	7/01/87	10/01/87
Oklahoma		4/09/90
Oregon	5/22/86	5/05/88
Pennsylvania		6/02/88
Puerto Rico		11/17/88
Rhode Island	9/21/87	9/21/87
South Carolina		12/24/87
South Dakota	2/25/88	2/25/88
Tennessee		11/03/88
Texas	10/01/87	4/08/88
Utah	12/31/86	3/17/88
Vermont	9/30/86	2/09/90
Virginia	12/24/87	12/24/87
Washington	7/24/87	
West Virginia	7/25/86	9/11/87
Wisconsin	7/14/88	7/14/88
Wyoming		1/24/89

- \* The approval date reflects the first plan approved in each state. In some instances, several companies have received approval at different times.
- \*\* California is the only state still offering a lifeline program under Plan 1 (a 50% waiver of the Subscriber Line Charge).
- \*\*\* Earlier programs were terminated as a result of legislative sunset provisions during 1989.

\* \* \* \* \*

The statistical data presented above provides a brief summary of several types of information collected by the FCC's Industry Analysis Division. In most cases, the reports underlying this summary provide a greater level of detail and are available in the Division's Public Reference Room, Room 537 at 1919 M Street, N.W. For more information, the following individuals may be contacted at (202) 632-0745: