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February 14, 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, with 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 and lifeline programs.

Among the findings are:

- During 1989, the Consumer Price Index for telephone service fell slightly, as declines in the cost of long distance service offset increases in the cost of local service. During 1989, local service prices rose 0.6%, while the cost of interstate calling declined 1.3% and the cost of state toll calls fell 2.6%. As a result, the composite Consumer Price Index for telephone services fell 0.3%. The nation's overall rate of inflation in 1989 was 4.6%. Thus, after adjusting for inflation, the real cost of telephone service fell about 5%.
- During 1989, 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 at the beginning of 1990.
- During 1989, 87 million households subscribed to telephone service, the highest number ever.
- More than 90 percent of the nation's telephone lines have now been converted to equal access.
- More than 300 of the nation's long distance telephone companies are now using 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.

- FCC -

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**

February 14, 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 eight 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>Date</u>	<u>Households</u> (millions)	<u>Households</u> with <u>Telephones</u> (millions)	<u>Percentage</u> with <u>Telephones</u>	<u>Households</u> without <u>Telephones</u> (millions)	<u>Percentage</u> Without <u>Telephones</u>
November 1983	85.8	78.4	91.4%	7.4	8.6%
March 1984	86.0	78.9	91.8	7.1	8.2
July 1984	86.6	79.3	91.6	7.3	8.4
November 1984	87.4	79.9	91.4	7.5	8.6
March 1985	87.4	80.2	91.8	7.2	8.2
July 1985	88.2	81.0	91.8	7.2	8.2
November 1985	88.8	81.6	91.9	7.2	8.1
March 1986	89.0	82.1	92.2	6.9	7.8
July 1986	89.5	82.5	92.2	7.0	7.8
November 1986	89.9	83.1	92.4	6.8	7.6
March 1987	90.2	83.4	92.5	6.8	7.5
July 1987	90.7	83.7	92.3	7.0	7.7
November 1987	91.3	84.3	92.3	7.0	7.7
March 1988	91.8	85.3	92.9	6.5	7.1
July 1988	92.4	85.7	92.8	6.7	7.2
November 1988	92.6	85.7	92.5	6.9	7.5
March 1989	93.6	87.0	93.0	6.6	7.0
July 1989	93.8	87.5	93.3	6.3	6.7
November 1989	93.9	87.3	93.0	6.6	7.0

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)

	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	*	4.6
- housing	*	5.8
- apparel & upkeep	3.3	3.4
- transportation	3.9	4.9
- medical care	5.1	8.3
- entertainment	*	5.1
- other goods & services	*	7.9
CPI public transportation	5.0	9.0
CPI piped gas	3.8	5.8
CPI electricity	2.4	5.7
CPI sewer & water maintenance	*	7.3

* 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	3.8	3.6
1984	3.7	3.9	9.2
1985	3.6	3.8	4.7
1986	2.3	1.1	2.7
1987	4.0	4.4	-1.3
1988	4.5	4.4	1.3
1989	4.1	4.6	-0.3

3. 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 residential rates is much more narrowly defined. It is based only on monthly service charges for residential service, optional touch tone service, and subscriber line charges. It excludes taxes and all other expenditures. The annual rates of change for these two indexes of local costs are presented in Table 4.

Table 4

Annual Rate of Change in Price Indexes For Local Telephone Service

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

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

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	\$10.50	\$12.10	\$12.17	\$12.58	\$12.44	\$12.32	\$12.28
Subscriber Line Charges	.00	.00	1.01	2.04	2.66	2.67	3.53
Taxes	1.08	1.25	1.36	1.51	1.56	1.58	1.73
<u>Total</u>	<u>11.58</u>	<u>13.35</u>	<u>14.54</u>	<u>16.13</u>	<u>16.66</u>	<u>16.57</u>	<u>17.54</u>
Lowest Generally							
Available Monthly Rate	\$ 5.37	\$ 5.62	\$ 5.75	\$ 5.96	\$ 5.81	\$ 5.67	\$ 5.66
Subscriber Line Charges	.00	.00	1.01	2.04	2.66	2.67	3.53
Taxes	.56	.58	.70	.84	.94	.91	1.05
<u>Total</u>	<u>5.93</u>	<u>6.20</u>	<u>7.46</u>	<u>8.84</u>	<u>9.41</u>	<u>9.25</u>	<u>10.24</u>
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
<u>Total</u>	<u>36.76</u>	<u>45.90</u>	<u>46.54</u>	<u>47.91</u>	<u>46.24</u>	<u>45.05</u>	<u>44.95</u>

Table 7

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

	1983	1984	1985	1986	1987	1988	1989
Representative Rate *	\$29.16	\$32.74	\$33.42	\$34.26	\$33.71	\$34.48	\$33.47
Subscriber Line Charges	.00	.00	1.01	2.04	2.68	2.69	3.55
Taxes	<u>3.35</u>	<u>3.77</u>	<u>3.96</u>	<u>4.17</u>	<u>4.18</u>	<u>3.95</u>	<u>4.11</u>
Total	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	<u>3.08</u>	<u>3.79</u>	<u>3.90</u>	<u>4.01</u>	<u>3.97</u>	<u>3.92</u>	<u>4.19</u>
Total	59.12	72.63	74.72	76.95	76.12	76.43	76.98

* 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 January 1990. During this period, AT&T's charges for directly dialed interstate calls have been reduced 40% 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:		Five minute calls			Ten minute calls		
		January 1984	January 1990	Percentage change	January 1984	January 1990	Percentage change
New York City*	Day	\$2.14	\$1.08	-49.5%	\$4.09	\$2.15	-47.4%
	Evening	1.28	.76	-40.6	2.45	1.53	-37.6
	Night	.85	.61	-28.2	1.63	1.21	-25.8
Atlanta & Chicago**	Day	2.34	1.20	-48.7	4.49	2.39	-46.8
	Evening	1.40	.79	-43.6	2.69	1.58	-41.3
	Night	.93	.63	-32.3	1.79	1.26	-29.6
Los Angeles***	Day	2.70	1.25	-53.7	5.15	2.50	-51.5
	Evening	1.62	.79	-51.2	3.09	1.58	-48.9
	Night	1.08	.67	-38.0	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 1989. However, a variety of other tax considerations, added to the possibility that the excise tax may 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 40% 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 to reflect the forces of further technological progress and intense 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. At the end of 1989, the amount of rate increases requested and pending before state commissions totaled only about \$400 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	\$ 627.7	\$ 1,175.6	\$ 4,851.9
Second quarter	93.7	2,054.2	1,675.6
Third quarter	2,242.9	284.5	3,387.5
Fourth quarter	<u>1,059.4</u>	<u>361.2</u>	3,672.3
Total	4,023.7	3,875.5	
1985 First quarter	976.6	246.3	3,779.0
Second quarter	172.4	314.8	3,316.3
Third quarter	108.3	286.5	2,664.2
Fourth quarter	<u>369.9</u>	<u>307.3</u>	1,437.3
Total	1,627.2	1,154.9	
1986 First quarter	155.1	58.0	766.2
Second quarter	249.9	57.9	362.0
Third quarter	230.0	173.3	315.7
Fourth quarter	<u>8.7</u>	<u>.8</u>	322.6
Total	643.7	290.0	
1987 First quarter	7.0	-33.1	67.1
Second quarter	19.4	-112.0	47.7
Third quarter	62.0	-94.0	94.0
Fourth quarter	<u>57.9</u>	<u>-279.9</u>	124.7
Total	146.3	-519.0	
1988 First quarter	46.4	-215.3	148.5
Second quarter	155.2	-232.4	301.6
Third quarter	140.9	-387.8	377.0
Fourth quarter	<u>15.4</u>	<u>-530.9</u>	198.5
Total	357.9	-1,366.4	
1989 First quarter	52.1	-203.7	140.6
Second quarter	25.8	-107.6	148.7
Third quarter	362.9	-48.9	490.4
Fourth quarter	<u>6.2</u>	<u>-478.3</u>	419.5
Total	447.0	-838.5	

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, by the end of 1988, the Bell Operating Companies had converted 90% 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 also converting offices to equal access. By the end of 1989, more than 90% of the nation's 130 million telephone lines had been converted to equal access.

Table 10

Equal Access Conversion Schedule *
(Percentage of Lines Converted)

	Bell Operating Companies	Independent Telephone Companies	Total Industry
1984 Third quarter	1.1	0.0	1.0
Fourth quarter	3.8	1.5	3.4
1985 First quarter	12.1	2.4	10.6
Second quarter	26.9	3.7	23.1
Third quarter	43.0	4.0	36.8
Fourth quarter	50.9	4.9	43.5
1986 First quarter	56.8	11.9	49.5
Second quarter	61.9	18.4	54.9
Third quarter	71.4	27.4	64.3
Fourth quarter	74.3	38.3	68.4
1987 First quarter	76.4	45.3	71.3
Second quarter	77.7	50.9	73.4
Third quarter	80.4	57.9	76.8
Fourth quarter	84.7	64.0	81.3
1988 First quarter	87.0	66.2	83.6
Second quarter	87.9	68.5	84.7
Third quarter	89.1	71.3	86.2
Fourth quarter**	90.9	73.9	88.1
1989 First quarter **	92.8	76.5	90.1
Second quarter**	93.5	77.5	90.9
Third quarter **	94.2	79.3	91.7
Fourth quarter**	94.9	81.6	92.7

* Data from Tariff Review Plans filed November 12, 1987 and December 30, 1988.

** Projected.

CALLING VOLUMES

1. Subscriber Line Usage:

The annual volume of calling reported by local telephone companies is shown in Table 11. The measure of calling, "subscriber line minutes," measures both ends of a typical call. Thus, the number of actual conversation minutes is approximately half of that shown in the table. Because many local telephone companies offer flat rate service, they do not necessarily count the actual number of local calls. Such companies usually estimate their local usage through special studies. Data covering the entire period since 1980 is available only for "Tier 1" companies. Tier 1 companies are local telephone companies with revenues of \$100 million or more annually. Also, over a period of years, there have been several changes in definitions and measurement techniques. Because of these factors, statistics on calling volumes have traditionally been subject to a larger margin of error than statistics on revenues or lines. Nevertheless, Tier 1 companies comprise about 95% of the total industry and the trends shown in Table 11 are representative of industry trends. In general, they show rapid and sustained growth in long distance calling --particularly interstate calling.

TABLE 11

Subscriber Line Usage:
Tier 1 Companies*
(In Billions of Minutes)

	Local Calling	State Toll Calling	Interstate Calling	Total Subscriber Line Usage
1980	1,382.6	127.1	124.7	1,634.3
1981	1,431.7	139.1	136.7	1,707.9
1982	1,481.7	146.5	143.8	1,772.0
1983	1,521.8	153.5	152.7	1,828.0
1984	1,594.2	180.7	182.3	1,957.2
1985	1,627.8	197.6	216.2	2,041.7
1986	1,636.7	203.1	225.9	2,065.7
1987	1,649.3	214.3	242.0	2,105.6
1988	1,715.4	233.4	284.7	2,233.5

Growth of
Total Tier I Company
Subscriber Line Usage Minutes

	Local Calling	State Toll Calling	Interstate Calling	Total Subscriber Line Usage
1981	3.6%	9.5%	9.7%	4.5%
1982	3.5	5.3	5.2	3.8
1983	2.7	4.8	6.2	3.2
1984	4.8	17.7	19.4	7.1
1985	2.1	9.4	18.6	4.3
1986	0.5	2.8	4.5	1.2
1987	0.8	5.5	7.1	1.9
1988	4.0	8.9	17.7	6.1

Average Annual Growth: 1980 through 1988

2.7%	9.1%	12.5%	4.6%
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* Beginning in June 1986, the closed end of WATS calls are excluded.

2. 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 12 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 12

Interstate Switched Access Minutes
(in Billions)

	Premium Minutes	Non-Premium Minutes	Total Minutes
1984: Third Quarter	32.0	5.5	37.5
Fourth Quarter	33.6	6.0	39.6
1985: First Quarter	32.9	6.6	39.6
Second Quarter	34.9	6.6	41.5
Third Quarter	36.6	6.2	42.8
Fourth Quarter	38.0	5.3	43.3
1986: First Quarter	38.8	4.3	43.0
Second Quarter	41.0	3.8	44.8
Third Quarter	43.2	3.5	46.7
Fourth Quarter	45.5	3.0	48.5
1987: First Quarter	48.0	3.2	51.2
Second Quarter	49.3	3.1	52.5
Third Quarter	52.1	2.9	55.0
Fourth Quarter	54.3	2.6	56.9
1988: First Quarter	56.3	2.4	58.7
Second Quarter	57.0	2.3	59.3
Third Quarter	59.6	2.3	61.9
Fourth Quarter	61.4	2.2	63.6
1989: First Quarter	65.0	2.1	67.1
Second Quarter	65.3	1.9	67.2
Third Quarter	66.2	1.8	67.9
Annual Rate of Growth	15.7%	-20.5%	12.6%

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 13

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

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.

The number of long distance carriers is summarized in the following two tables. Table 14 provides information on the total number of long distance carriers purchasing switched access and the total number of firms purchasing equal access. A total of over 500 carriers were reported as serving in one part or another of the nation. Of these, over half were reported as purchasing equal access.

Table 14

Number of Long Distance Telephone Carriers

		Carriers that use Equal Access	All Carriers
1986	January	157	*
	February	166	*
	March	169	*
	April	175	475
	May	178	*
	June	183	*
	July	183	494
	August	193	519
	September	190	506
	October	200	516
	November	204	521
	December	210	533
1987	January	207	551
	February	209	559
	March	211	561
	April	213	*
	May	216	*
	June	213	*
	July	219	*
	August	221	560
	September	224	*
	October	227	*
	November	229	552
	December	239	540
1988	January	235	*
	February	235	*
	March	238	511
	April	242	*
	May	245	*
	June	248	519
	July	252	*
	August	254	*
	September	256	506
	October	256	*
	November	260	*
	December	266	510

Table 14 (Cont'd)

Number of Long Distance Telephone Carriers

		Carriers that use Equal Access	All Carriers
1989	January	269	*
	February	273	*
	March	274	509
	April	*	*
	May	*	*
	June	*	*
	July	*	*
	August	*	*
	September	*	*
	October	*	*
	November	*	*
	December	318	519

* Data not available.

Table 15 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 15
Carriers Purchasing Access
From Bell Operating Companies: December 1989

State	Switched Access	Equal Access	State	Switched Access	Equal Access
Alabama	40	19	Nebraska	39	21
Arizona	62	37	Nevada	38	28
Arkansas	42	17	New Hampshire	23	16
California	123	44	New Jersey	94	36
Colorado	102	37	New Mexico	50	35
Delaware	23	5	New York	138	41
District of Columbia	83	31	North Carolina	50	18
Florida	77	26	North Dakota	25	13
Georgia	80	25	Ohio	85	37
Idaho	39	27	Oklahoma	62	25
Illinois	105	37	Oregon	52	26
Indiana	60	29	Pennsylvania	111	38
Iowa	42	20	Rhode Island	27	17
Kansas	41	21	South Carolina	36	13
Kentucky	33	21	South Dakota	30	17
Louisiana	55	26	Tennessee	59	26
Maine	19	13	Texas	166	86
Maryland	60	25	Utah	54	30
Massachusetts	61	23	Vermont	16	11
Michigan	77	27	Virginia	46	19
Minnesota	72	29	Washington	67	30
Mississippi	36	18	West Virginia	19	13
Missouri	85	27	Wisconsin	60	36
Montana	34	25	Wyoming	28	20
			Unduplicated		
			Total	519	318

LONG DISTANCE MARKET SHARES:

1. Interstate Switched Minutes

Table 16 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 17. AT&T's share of the overall market for interstate switched minutes has declined from over 80% in late 1984 to 66% in the third quarter of 1989. 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 68% of the equal access market by late 1989.

Table 16

Interstate Switched Access Minutes By Carrier
(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	16.8	56.9
1988:	First Quarter	41.2	17.5	58.7
	Second Quarter	41.1	18.2	59.3
	Third Quarter	42.3	19.5	61.9
	Fourth Quarter	43.0	20.7	63.6
1989:	First Quarter	44.2	22.9	67.1
	Second Quarter	44.4	22.8	67.2
	Third Quarter	44.9	23.0	67.9
Annual Rate of Growth:		7.3%	31.1%	12.6%

Table 17

AT&T Share of the Interstate Market

		Premium Minutes	All Minutes
1984:	Third Quarter	98.7%	84.2%
	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	77.0
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	73.9	70.5
1988:	First Quarter	73.1	70.2
	Second Quarter	72.1	69.3
	Third Quarter	71.1	68.4
	Fourth Quarter	70.0	67.5
1989:	First Quarter	68.0	65.9
	Second Quarter	68.0	66.1
	Third Quarter	67.9	66.1
Annual Rate of Growth:		-7.2%	-4.7%

2. Total Toll Revenues

Long distance telephone companies with over \$100 million in annual revenues are required to report their annual revenues to the FCC. The revenues reported are aggregated to include both interstate and intrastate calls. For most carriers, no information is available that separates their results into interstate versus intrastate service. In 1988, services provided by long distance carriers generated \$47 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 -- again because the growth in calling volume was not sufficient to offset the effect of lower prices.

Long distance revenues and AT&T's share of long distance revenues are shown in Table 18. The growth in total revenues during the early 1980's reflected both growing demand and higher prices. In recent years, calling has grown rapidly as prices have fallen. The effects of rapid traffic growth and sharply lower prices have tended to offset each other -- resulting in a slower growth in total revenues since 1984. AT&T's total communications revenues have been stable or declining slightly as the effects of traffic growth and falling prices have almost exactly offset each other. Other long distance carriers, however, have continued to grow so rapidly that their revenues have tripled since 1984.

During 1984, AT&T's toll revenues of \$35 billion accounted for about 90% of the revenues received by all long distance carriers. By 1988, with its revenues virtually unchanged, its share of the revenues had fallen to 75%. 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 \$61 billion in 1988, with AT&T accounting for slightly less than 60% of the total.

TABLE 18

Total Toll Service Revenues
(In Millions of Dollars)

Company	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
AT&T						34,935	36,770	36,514	35,219	35,407
MCI	125	206	413	802	1,326	1,761	2,331	3,372	3,938	4,886
US Sprint	95	153	231	393	740	1,052	1,509	2,132	2,592	3,405
Telecom*USA						105	201	291	396	524
Allnet							436	450	395	394
ITTCS	21	42	83	128	163	162	241	282	269	282
Alascom	143	157	191	238	257	255	271	267	262	272
C & W							146	171	180	218
ATC						72	86	124	162	178
Others*	48	79	144	263	443	414	639	992	1,108	1,382
All Long Distance Carriers						38,756	42,630	44,595	44,521	46,949
AT&T Share:						90.1%	86.3%	81.9%	79.1%	75.4%
Bell Operating Companies						9,037	9,026	9,599	10,268	10,665
Other Local Telephone Companies						3,290	3,094	3,166	3,136	3,965
All Local Exchange Companies						12,327	12,120	12,765	13,404	14,630
All Carriers	29,551	33,335	39,180	43,919	46,970	51,083	54,750	57,360	57,925	61,579
AT&T Share:						68.4%	67.2%	63.7%	60.8%	57.5%

* Estimated by FCC Staff.

3. "Presubscribed" Lines

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.

The National Exchange Carrier Association (NECA) provides information 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.

Summary information is shown in Table 19. Except for AT&T, which has not asked for confidential treatment, individual company information is aggregated into groups so that proprietary data will not be disclosed.¹ At the end of 1988, NECA reported 124 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. During both the first and last half of 1988, the number of lines presubscribed to AT&T fell. During each half of the year, the number of lines presubscribed to other carriers grew rapidly, with the most rapid growth occurring among the smaller carriers. At the end of the year, about 80% of the lines were presubscribed to AT&T. After AT&T, the next four carriers have 20 million lines (16% of the total). Twelve mid-size carriers -- each of which have at least 60,000 presubscribed lines -- account for another 2 million lines. Finally, there are over two hundred smaller carriers that serve a total of 1.6 million lines.

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.

¹ On December 1, 1989, in response to a request filed under the Freedom of Information Act, the FCC determined that part of the data underlying the aggregated amounts shown in Table 19 was not proprietary. However, no ruling has yet been issued on the data for December 1988.

Table 19

"Presubscribed" Telephone Lines by
Size of Long Distance Carrier

	December 1987	June 1988	December 1988
Total Number of Carriers with presubscribed lines	223	242	253

Total Number of Lines Presubscribed to Each Group of Carriers:

AT&T	101,652,678	100,832,869	100,205,677
Next four Carriers	17,014,869	18,618,058	20,531,530
12 Mid Size Carriers	1,576,913	1,771,518	2,017,388
Small Carriers	1,222,040	1,442,970	1,606,234
Total Industry Lines	121,466,500	122,665,415	124,360,829

Annual Rate of Change During Each Six Month Period:

AT&T	N/A	-1.61%	-1.24%
Next Four Carriers	N/A	19.73	21.61
12 Mid Size Carriers	N/A	26.20	29.68
Small Carriers	N/A	39.43	23.91
Total Industry Lines	N/A	1.98	2.78

Percentage Share of Total Lines:

AT&T	83.69%	82.20%	80.58%
Next Four Carriers	14.01	15.18	16.51
12 Mid Size Carriers	1.30	1.44	1.62
Small Carriers	1.01	1.18	1.29
Total Industry Lines	100.00	100.00	100.00

Source: Data filed periodically by the National Exchange Carrier Association, most recently in conjunction with their Universal Fund and Lifeline Assistance filing of November 17, 1989 (Transmittal No. 383).

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 early 1990, local exchange carriers in 25 states and the District of Columbia had been certified to provide both lifeline service and connection assistance. Companies in another 19 states and the Commonwealth of Puerto Rico had established one, but not both, of the programs. The states, and the date of FCC certification for each program, are indicated in Table 20.

Table 20

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	7/25/86**	1/16/90**
Connecticut		11/13/87
Distict of Columbia	3/18/86	8/19/87
Florida		8/01/88
Hawaii	10/27/86	8/7/89
Idaho	7/24/87	5/12/89
Indiana		4/25/88
Iowa		3/10/88
Kansas		1/27/88
Kentucky		12/24/87
Louisiana		10/28/88
Maine	8/11/87	8/11/87
Maryland	5/22/86	10/01/87
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	9/07/88
New Hampshire		11/03/88
New Jersey		11/13/87
New Mexico	4/01/87	1/15/88
New York	11/02/87	8/11/87
North Carolina	5/22/86	10/19/87

North Dakota	12/18/89	12/24/87
Ohio	7/01/87	10/01/87
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	3/25/88	3/25/88
Tennessee		11/03/88
Texas	7/12/88	10/01/87
Utah	12/31/86	3/17/88
Vermont	10/01/86	
Virginia	12/24/87	12/24/87
Washington	7/24/87	
West Virginia	7/25/86	9/11/87
Wisconsin	7/14/89	7/14/89
Wyoming	8/7/89	1/24/89

- * California is the only state still offering a lifeline program under Plan 1 (a 50% waiver of the SLC).
- ** The Colorado lifeline and Link Up plans were terminated as a result of legislative sunset provisions during 1989. A new Link Up program was certified by the FCC in January 1990.

* * * * *

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:

Telephone Penetration Levels:	Alexander Belinfante
Prices and Rates:	Jim Lande
State Rate Cases:	Linda Blake or Adrienne Brent
Subscriber Line Usage	Ramses Mina
Equal Access:	Peyton Wynns
Long Distance Companies and CIC Codes:	Katie Rangos
Access Minutes & AT&T Market Share:	Linda Blake
Lifeline Assistance Programs:	Mary Green or Larry Povich