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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 1974).

September 16, 1992

FCC RELEASES SEMIANNUAL STUDY ON TELEPHONE TRENDS

The FCC has released a semiannual report on Trends in Telephone Service. The report is a summary of information collected by the Commission in much more detailed reports.

Among the findings are:

* In March, the Current Population Survey reported that 93.9% of the nation's households have telephone service.

* For the year ending in July 1992, the Consumer Price Index for telephone services increased 0.6%. This reflected an increase in the cost of local service of 1.2%, a decline of 1.9% in the price of intrastate toll calls, and no change in the price of interstate calling. During the same 12 month period, the nation's overall rate of inflation was 3.2%.

* About 2.0% of all consumer expenditures are devoted to telephone service -- a percentage that has remained virtually unchanged over the past 20 years despite major changes in the telephone industry and in telephone usage.

* The volume of long distance calling has doubled since the AT&T divestiture in 1984. By 1990, 14% of calling minutes were interstate and another 12% were intrastate toll calls.

* By all indications, the number of long distance carriers continues to increase. In June 1992, 370 carriers were reported to purchase the equal access necessary to provide direct distance dialing.

This report is available for reference in the Industry Analysis Division, Common Carrier Bureau, 1250 23rd Street, NW., Plaza Level. Copies may be purchased from the Commission's duplicating contractor, Downtown Copy Center at (202) 452-1422.

- FCC -

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

Industry Analysis Division
Common Carrier Bureau
Federal Communications Commission

September 1992

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INTRODUCTION:

This publication summarizes a variety of information on telephone service. More detailed information is available from the sources listed at the end of the document.

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 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.

Twelve 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 0.2% from March to July, followed by a decrease of 0.1% from July to November.

Because of smaller sample sizes, state-by-state data are subject to greater sampling errors than the national data shown in Table 1. Consequently, the state-by-state data shown in Table 2 are based on annual average penetration rates.

TABLE 1

HOUSEHOLD TELEPHONE SUBSCRIBERSHIP IN THE U.S.

	HOUSEHOLDS (MILLIONS)	HOUSEHOLDS WITH TELEPHONES (MILLIONS)	PERCENTAGE WITH TELEPHONES	HOUSEHOLDS WITHOUT TELEPHONES (MILLIONS)	PERCENTAGE WITHOUT TELEPHONES
1983 NOVEMBER	85.8	78.4	91.4 %	7.4	8.6 %
1984 MARCH	86.0	78.9	91.8	7.1	8.2
JULY	86.6	79.3	91.6	7.3	8.4
NOVEMBER	87.4	79.9	91.4	7.5	8.6
1985 MARCH	87.4	80.2	91.8	7.2	8.2
JULY	88.2	81.0	91.8	7.2	8.2
NOVEMBER	88.8	81.6	91.9	7.2	8.1
1986 MARCH	89.0	82.1	92.2	6.9	7.8
JULY	89.5	82.5	92.2	7.0	7.8
NOVEMBER	89.9	83.1	92.4	6.8	7.6
1987 MARCH	90.2	83.4	92.5	6.8	7.5
JULY	90.7	83.7	92.3	7.0	7.7
NOVEMBER	91.3	84.3	92.3	7.0	7.7
1988 MARCH	91.8	85.3	92.9	6.5	7.1
JULY	92.4	85.7	92.8	6.7	7.2
NOVEMBER	92.6	85.7	92.5	6.9	7.5
1989 MARCH	93.6	87.0	93.0	6.6	7.0
JULY	93.8	87.5	93.3	6.3	6.7
NOVEMBER	93.9	87.3	93.0	6.6	7.0
1990 MARCH	94.2	87.9	93.3	6.3	6.7
JULY	94.8	88.4	93.3	6.4	6.7
NOVEMBER	94.7	88.4	93.3	6.3	6.7
1991 MARCH	95.3	89.2	93.6	6.1	6.4
JULY	95.5	89.1	93.3	6.4	6.7
NOVEMBER	95.7	89.4	93.4	6.3	6.6
1992 MARCH	96.6	90.7	93.9	5.9	6.1

TABLE 2

TELEPHONE PENETRATION BY STATE
(ANNUAL AVERAGE PERCENTAGE OF HOUSEHOLDS WITH TELEPHONE SERVICE)

STATE	1984	1991	CHANGE
ALABAMA	88.4 %	91.4 %	3.0 % *
ALASKA	86.5	90.8	4.3 *
ARIZONA	86.9	93.4	6.5 *
ARKANSAS	86.6	87.6	1.0
CALIFORNIA	92.5	95.0	2.6 *
COLORADO	93.2	95.4	2.1 *
CONNECTICUT	95.5	96.2	0.7
DELAWARE	94.3	96.4	2.2 *
DISTRICT OF COLUMBIA	94.9	90.9	−4.0 *
FLORIDA	88.7	93.3	4.6 *
GEORGIA	86.2	89.9	3.7 *
HAWAII	93.5	95.1	1.6
IDAHO	90.7	92.0	1.2
ILLINOIS	94.2	93.8	−0.4
INDIANA	91.6	92.2	0.6
IOWA	96.2	95.6	−0.7
KANSAS	94.3	94.5	0.2
KENTUCKY	88.1	88.1	−0.1
LOUISIANA	89.7	91.1	1.5
MAINE	93.4	94.4	1.0
MARYLAND	95.7	96.3	0.6
MASSACHUSETTS	95.9	96.4	0.6
MICHIGAN	92.8	94.1	1.3
MINNESOTA	95.8	97.1	1.2
MISSISSIPPI	82.4	86.0	3.6 *
MISSOURI	91.5	93.6	2.1 *
MONTANA	91.0	92.5	1.6
NEBRASKA	95.7	95.9	0.2
NEVADA	90.4	93.3	2.9 *
NEW HAMPSHIRE	94.3	96.2	1.9
NEW JERSEY	94.8	93.6	−1.2
NEW MEXICO	82.0	87.1	5.0 *
NEW YORK	91.8	91.9	0.1
NORTH CAROLINA	88.3	91.8	3.5 *
NORTH DAKOTA	94.6	96.3	1.6
OHIO	92.4	94.5	2.1 *
OKLAHOMA	90.3	89.3	−1.0
OREGON	90.6	94.7	4.1 *
PENNSYLVANIA	94.9	96.8	1.9 *
RHODE ISLAND	93.6	94.7	1.1
SOUTH CAROLINA	83.7	90.0	6.4 *
SOUTH DAKOTA	93.2	93.7	0.5
TENNESSEE	88.5	92.2	3.7 *
TEXAS	88.4	91.1	2.7 *
UTAH	92.5	96.2	3.7 *
VERMONT	92.3	94.4	2.2
VIRGINIA	93.1	92.6	−0.5
WASHINGTON	93.0	96.8	3.8 *
WEST VIRGINIA	87.7	89.0	1.3
WISCONSIN	95.2	96.5	1.3
WYOMING	89.9	94.6	4.8 *
TOTAL UNITED STATES	91.6	93.4	1.8 *

* CHANGE IS STATISTICALLY SIGNIFICANT AT THE 95% CONFIDENCE LEVEL.

PRICE INDEXES FOR 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 following material illustrates the range of information available on price indexes.

1. Long Term Trends in Price Indexes:

A price index for telephone service was first published in 1935. Since that time, telephone prices have tended to increase at a slower pace than most other prices. Table 3 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.

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 4 for the overall CPI (which measures the impact of inflation on consumers) and the CPI for telephone services. In addition, Table 4 shows the Gross National Product fixed weight price index prepared by the Bureau of Economic Analysis (which measures inflation throughout the economy).

3. Price Indexes for Local Service:

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, service enhancements (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 indexes of local costs are presented in Table 5.

4. Price Indexes for Long Distance Service:

Consumer price index data is available for intrastate toll and interstate toll services since December 1977. These series are also presented in Table 5. A variety of other more detailed indexes are available in the source materials indicated at the end of this publication.

Table 3

Annual Rates of Change for Various Price indexes*

	1935 – 1991	1981 – 1991
CPI all items	4.2 %	4.1 %
CPI all services	4.6	5.2
CPI telephone services	2.1	3.5
CPI major categories		
– food & beverages	*	3.9
– housing	*	4.0
– apparel & upkeep	3.3	3.1
– transportation	4.0	3.2
– medical care	5.2	7.9
– entertainment	*	4.4
– other goods & services	*	7.6
CPI public transportation	5.1	5.7
CPI piped gas	3.7	2.8
CPI electricity	2.4	3.4
CPI sewer & water maintenance	*	6.9
CPI postage	4.4	4.9

* Series not established until after 1935.

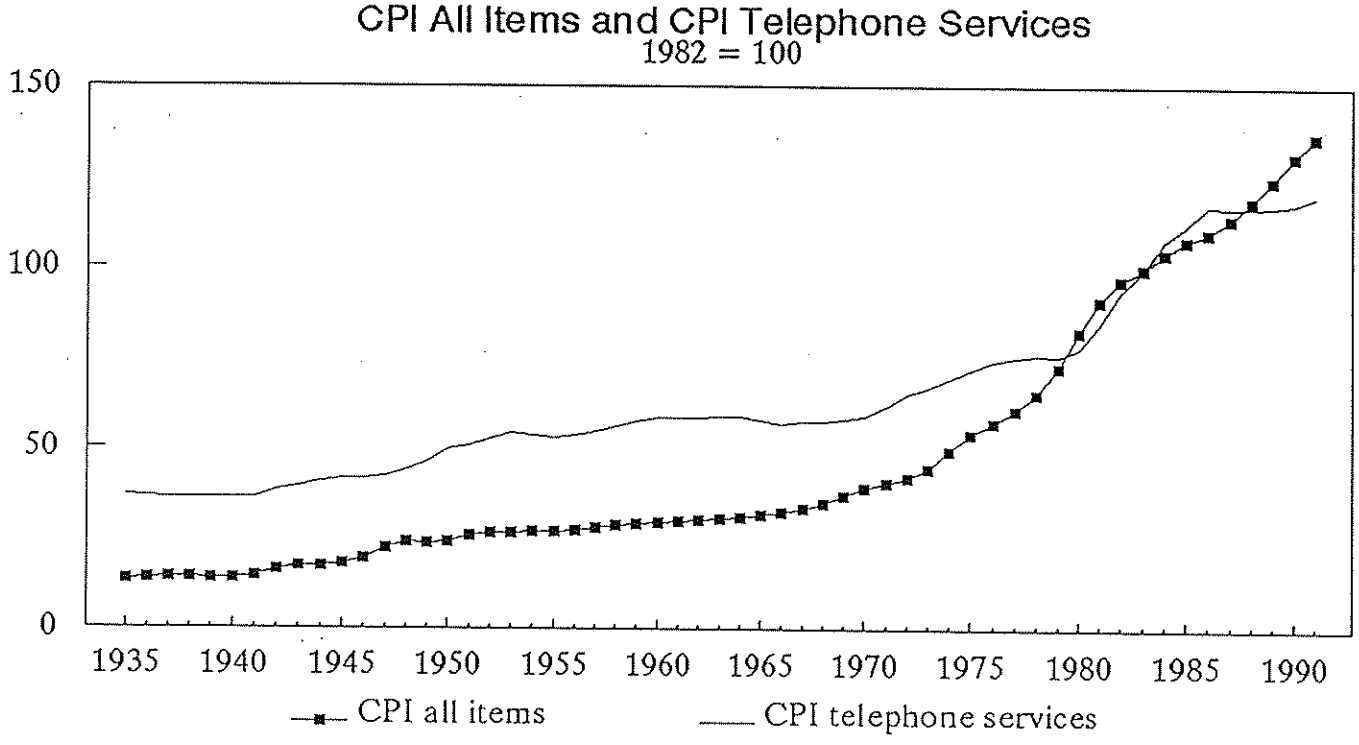


Table 4

Annual Rates 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	3.4	3.8	3.6
1984	3.4	3.9	9.2
1985	3.6	3.8	4.7
1986	2.5	1.1	2.7
1987	3.4	4.4	−1.3
1988	4.2	4.4	1.3
1989	4.3	4.6	−0.3
1990	4.7	6.1	−0.4
1991	3.5	3.1	3.5
1992 **	3.0	3.2	0.6

* In 1992 the BEA revised the methodology for calculating the GNP Fixed Weight Price Index. The BEA revised the index for 1982 through the present. The Table shows percentage changes for the unrevised series for 1978 through 1982.

** The 1992 CPI changes are measured July through July. The 1992 GNP Price Index changes are measured second quarter through second quarter.

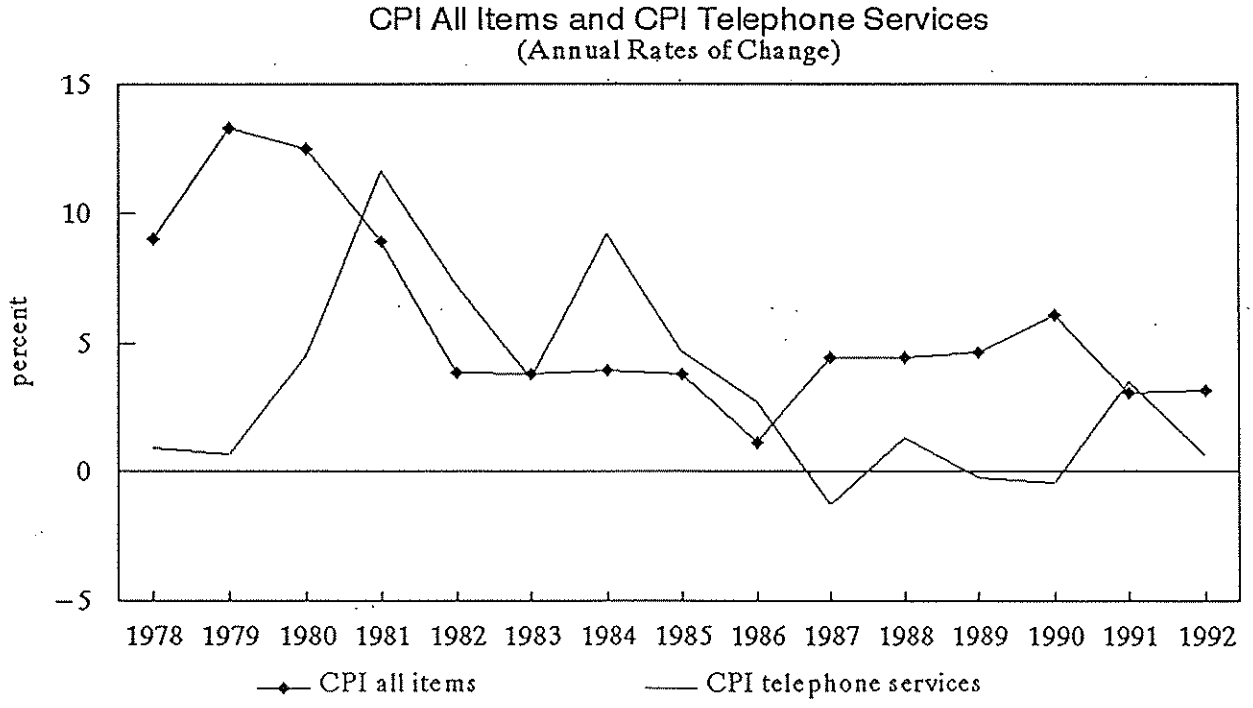


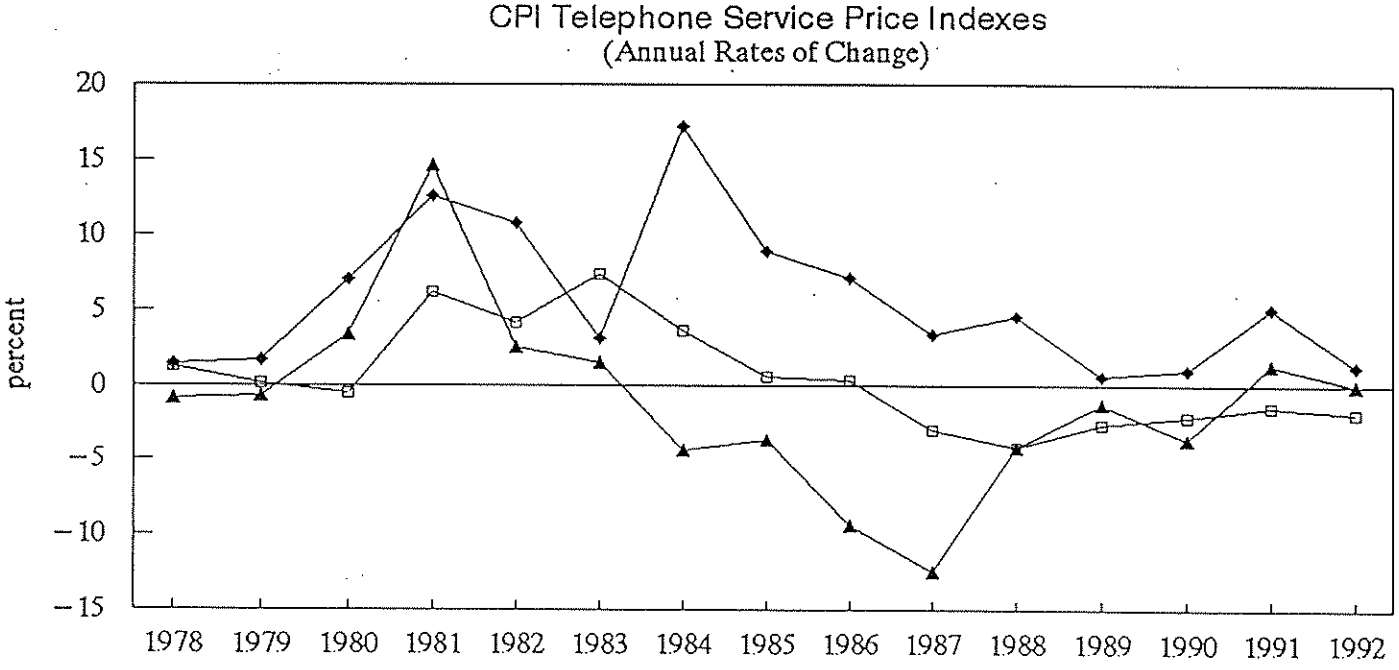
Table 5

Annual Rates of Change for Price Indexes for Local and Long Distance Telephone Services

	Local Residential Service		Toll Service *	
	CPI: all local charges	PPI: Monthly Service Charges	CPI: Interstate Toll Calls	CPI: Intrastate Toll Calls
1978	1.4 %	3.1 %	−0.8 %	1.3 %
1979	1.7	1.6	−0.7	0.1
1980	7.0	7.1	3.4	−0.6
1981	12.6	15.6	14.6	6.2
1982	10.8	9.0	2.6	4.2
1983	3.1	0.2	1.5	7.4
1984	17.2	10.4	−4.3	3.6
1985	8.9	12.4	−3.7	0.6
1986	7.1	8.9	−9.4	0.3
1987	3.3	2.6	−12.4	−3.0
1988	4.5	4.6	−4.2	−4.2
1989	0.6	1.9	−1.3	−2.6
1990	1.0	1.5	−3.7	−2.2
1991	5.1	2.1	1.3	−1.5
1992 *	1.2	0.6	0.0	−1.9

* CPI toll indexes represent rates for households. PPI toll indexes represent rate changes for both business and residential consumers.

** The 1992 index changes are measured July through July.



PRICE LEVELS:

1. Local Rate Levels:

The price indexes maintained by the Bureau of Labor Statistics indicate percentage changes in the price of telephone services. The BLS does not publish actual rate levels. Calculations of average rates are based on surveys by FCC staff. These surveys use the same sampling areas and weights used by the BLS in constructing the Consumer Price Index.

Table 6 presents average local rates for residential customers. In October 1991, the national average for flat rate residential service was $18.64 monthly, including taxes and subscriber line charges.

In most cities, consumers can subscribe to a service with a lower recurring charge than the cost of unlimited one party service. Lower priced service options include party line service and measured service. As of October 1991, the national average for the lowest generally available recurring charge was $6.24. The average minimum monthly bill, including subscriber line charges and taxes, was $11.11.

Table 6 also shows rates for a single-line business customer. These rates are representative of local access costs for small businesses.

2. Long Distance Rates:

In Table 7, AT&T's prices for directly dialed long distance calls are shown for January 1984 and July 1992. Higher charges apply to other types of calls such as those using operator assistance. Lower prices are available through calling plans and other volume discounts. Since 1984, AT&T's charges for directly dialed interstate calls have been reduced about 40%.

Table 6

National Averages for Local Telephone Rates

	October Data								
	1983	1984	1985	1986	1987	1988	1989	1990	1991
Residential rates*									
Unlimited service	$10.50	$12.10	$12.17	$12.58	$12.44	$12.32	$12.30	$12.39	$13.05
Subscriber line charges	0.00	0.00	1.01	2.04	2.66	2.67	3.53	3.55	3.56
Taxes including 911 charges	1.08	1.25	1.36	1.51	1.56	1.58	1.70	1.85	2.03
Total	11.58	13.35	14.54	16.13	16.66	16.57	17.53	17.79	18.64
Lowest generally available rate	5.37	5.62	5.75	5.96	5.81	5.67	5.67	5.68	6.24
Subscriber line charges	0.00	0.00	1.01	2.04	2.66	2.67	3.53	3.55	3.56
Taxes including 911 charges	0.56	0.58	0.70	0.84	0.94	0.91	1.03	1.15	1.31
Total	5.93	6.20	7.46	8.84	9.41	9.25	10.23	10.38	11.11
Connection***	35.01	43.71	44.32	45.63	44.04	42.94	42.71	43.06	41.88
Taxes	1.75	2.19	2.22	2.28	2.20	2.11	2.24	2.32	2.29
Total	36.76	45.90	46.54	47.91	46.24	45.05	44.95	45.38	44.17
Business rates **									
Representative rate	29.16	32.74	33.42	34.26	33.71	31.03	31.06	30.97	32.18
Touch–Tone service	**	**	**	**	**	2.45	2.43	2.35	2.04
Subscriber line charges	0.00	0.00	1.01	2.04	2.68	2.69	3.55	3.57	3.57
Taxes including 911 charges	3.35	3.77	3.96	4.17	4.18	3.95	4.21	4.32	4.63
Total	32.51	36.51	38.39	40.47	40.57	40.12	41.25	41.21	42.42
Average charge for 5 minute same zone daytime business call	0.085	0.090	0.090	0.092	0.092	0.091	0.093	0.093	0.091
Connection***	56.04	68.84	70.82	72.94	72.15	70.48	71.05	71.36	72.76
Touch–Tone service	**	**	**	**	**	2.03	1.70	1.89	1.13
Taxes	3.08	3.79	3.90	4.01	3.97	3.92	4.06	4.15	4.43
Total	59.12	72.63	74.72	76.95	76.12	76.43	76.81	77.40	78.32
5 minute payphone call	0.168	0.212	0.222	0.223	0.226	0.228	0.228	0.228	0.228

* The residential rates shown in this table do not include additional charges for touch tone service.

** The representative rate is based on the single–line rate for unlimited service where that service is offered, and the measured service rate plus additional charges for the first 200 five–minute messages in other cities. The representative business rate includes the additional monthly cost for touch–tone service for 1983 through 1987. The additional charge is shown separately thereafter.

*** Connection charges do not include drop line and block charges. Residential connection charges do not include additional charges for touch–tone service. Business connection charges for 1983 through 1987 include the additional connection charge for installing touch tone service. The charge is shown separately thereafter.

Table 7

Changes in the Price of Directly Dialed Long Distance Calls
(AT&T Interstate Rates)

Calling Distance in airline miles, rate center to rate center		Five minute calls			10 minute calls		
		January 1984	July 1992	Percentage change	January 1984	July 1992	Percentage change
1 – 10	Day	$0.96	$1.00	4.2 %	$1.76	$2.00	13.6 %
	Evening	$0.57	$0.65	14.0	$1.05	$1.30	23.8
	Night & Weekend	$0.38	$0.55	44.7	$0.70	$1.10	57.1
11 – 22	Day	$1.28	$1.10	−14.1	$2.38	$2.20	−7.6
	Evening	$0.76	$0.65	−14.5	$1.42	$1.30	−8.5
	Night & Weekend	$0.51	$0.59	15.7	$0.95	$1.19	25.3
23 – 55	Day	$1.60	$1.10	−31.3	$3.00	$2.20	−26.7
	Evening	$0.96	$0.65	−32.3	$1.80	$1.30	−27.8
	Night & Weekend	$0.64	$0.59	−7.8	$1.20	$1.19	−0.8
56 – 124	Day	$2.05	$1.10	−46.3	$3.90	$2.20	−43.6
	Evening	$1.22	$0.70	−42.6	$2.34	$1.40	−40.2
	Night & Weekend	$0.82	$0.59	−28.0	$1.56	$1.19	−23.7
125 – 292	Day	$2.14	$1.10	−48.6	$4.09	$2.20	−46.2
	Evening	$1.28	$0.70	−45.3	$2.45	$1.40	−42.9
	Night & Weekend	$0.85	$0.65	−23.5	$1.63	$1.30	−20.2
293 – 430	Day	$2.27	$1.15	−49.3	$4.37	$2.30	−47.4
	Evening	$1.36	$0.70	−48.5	$2.62	$1.40	−46.6
	Night & Weekend	$0.90	$0.65	−27.8	$1.74	$1.30	−25.3
431 – 925	Day	$2.34	$1.15	−50.9	$4.49	$2.30	−48.8
	Evening	$1.40	$0.75	−46.4	$2.69	$1.50	−44.2
	Night & Weekend	$0.93	$0.65	−30.1	$1.79	$1.30	−27.4
926 – 1910	Day	$2.40	$1.19	−50.4	$4.60	$2.39	−48.0
	Evening	$1.44	$0.75	−47.9	$2.76	$1.50	−45.7
	Night & Weekend	$0.96	$0.65	−32.3	$1.84	$1.30	−29.3
1911 – 3000	Day	$2.70	$1.25	−53.7	$5.15	$2.50	−51.5
	Evening	$1.62	$0.77	−52.5	$3.09	$1.55	−49.8
	Night & Weekend	$1.08	$0.65	−39.8	$2.06	$1.30	−36.9
3001 – 4250	Day	$2.80	$1.50	−46.4	$5.35	$3.00	−43.9
	Evening	$1.68	$1.04	−38.1	$3.21	$2.09	−34.9
	Night & Weekend	$1.12	$0.80	−28.6	$2.12	$1.60	−24.5
4251 – 5750	Day	$2.91	$1.65	−43.3	$5.56	$3.30	−40.6
	Evening	$1.74	$1.10	−36.8	$3.33	$2.20	−33.9
	Night & Weekend	$1.16	$0.85	−26.7	$2.22	$1.70	−23.4

CONSUMER EXPENDITURES:

The Bureau of Labor Statistics conducts surveys of consumer expenditures, in part, to develop weights for CPI indexes. Table 8 shows expenditures for telephone service for all consumer units. Average annual expenditures on telephone servie increased from $325 per household in 1980 to $592 in 1990.

About 2% of all consumer expenditures are devoted to telephone service. This percentage has remained virtually unchanged over the past 20 years, despite major changes in the telephone industry and in telephone usage.

The information on average telephone expenditures can be used to estimate average monthly residential bills for those households with telephone service. This average was about $50 per month in 1990. Since 1980, residential expenditures for toll service have increased by about 5% per year while long distance rates were falling. The average American household now spends more on long distance service than on basic local service, reflecting growth in long distance calling of about 10% per year since the AT&T divestiture in 1984.

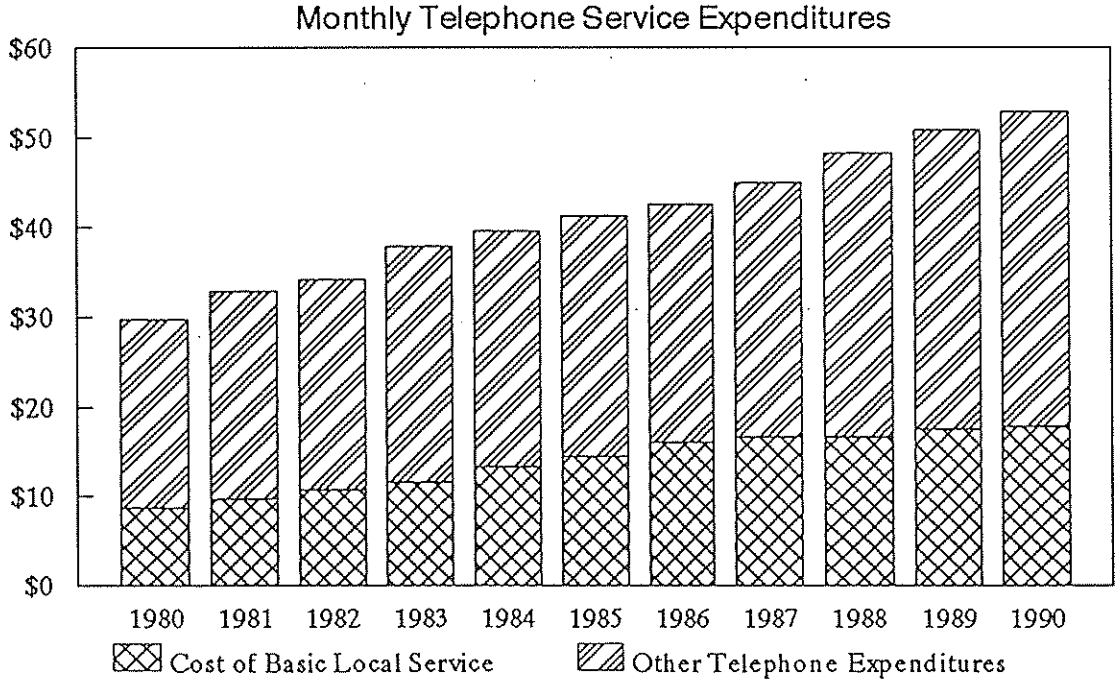
Table 8

Telephone Service Expenditures

Year	Annual Expenditures (Average for All Households)		Monthly Expenditures (for Households with Telephone Service)		
	Telephone Expenditures	Percentage of Total Expenditures	Basic Local Service Charge *	Toll and Other Telephone Expenditures **	Total Telephone Expenditures
1980	$325	1.9 %	$8.74	$21	$30
1981	360	2.1	9.71	23	33
1982	375	2.1	10.75	23	34
1983	415	2.1	11.58	26	38
1984	435	2.0	13.35	26	40
1985	455	1.9	14.54	27	41
1986	471	2.0	16.11	26	43
1987	499	2.0	16.66	28	45
1988	537	2.1	16.57	32	48
1989	567	2.0	17.53	33	51
1990	592	2.1	17.79	35	53

* Monthly service charges for unlimited local service, taxes, and subscriber line charges.

** Primarily toll services. Also includes charges for equipment, additional access lines, connection, touch tone, call waiting, "900" service, directory listings, etc.



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 beginning of 1984, rate cases pending before state public utility commissions totaled nearly $7 billion dollars. During the first half of that year, state commissions completed action on a number of extraordinarily large rate cases. After 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 usually exceeded the dollar amount of rate increases authorized.

The total amount of rate increases pending before public utility commissions is about $240 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 recent reductions ordered by state commissions -- should indicate a low level of rate changes for local and intrastate toll rates during the next year.

TABLE 9

STATE TELEPHONE RATE CASES
(MILLIONS OF DOLLARS)

	REVENUE INCREASES REQUESTED DURING QUARTER	REVENUE CHANGES ORDERED DURING QUARTER	REQUESTED INCREASES 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	1,059.4	361.2	3,672.3
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	369.9	307.3	1,437.3
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	8.7	0.8	322.6
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	57.9	(279.9)	124.7
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	15.4	(530.9)	198.5
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	6.2	(478.3)	419.5
1990 FIRST QUARTER	897.8	(134.6)	903.6
SECOND QUARTER	58.3	(109.9)	955.1
THIRD QUARTER	129.3	(316.9)	1,066.8
FOURTH QUARTER	23.8	110.3	258.6
1991 FIRST QUARTER	184.3	2.8	372.4
SECOND QUARTER	98.0	7.8	358.5
THIRD QUARTER	44.6	76.4	225.2
FOURTH QUARTER	54.3	(173.6)	132.6
1992 FIRST QUARTER	0.0	(125.8)	132.6
SECOND QUARTER	145.8	(91.4)	237.2
ANNUAL TOTALS:			
1984	4,023.7	3,875.5	
1985	1,627.2	1,154.9	
1986	643.7	290.0	
1987	146.3	(519.0)	
1988	357.9	(1,366.4)	
1989	447.0	(838.5)	
1990	1,109.2	(451.1)	
1991	381.2	(86.6)	

CHANGES IN TECHNOLOGY AND EQUAL ACCESS:

1. Central Office Technology:

During the 1980's, the Bell Operating Companies replaced most of their older "electromechanical" switches with newer equipment. The newer offices use computers to switch calls. In the telephone industry these computers are referred to as "stored program control" switches. Switches with the most current technologies are fully digital. That is, computers are used to switch calls and, in addition, telephone conversations are converted to a digital form before being passed through the switch and later reconverted to their original analog form. About half of the Bell company offices are of an intermediate variety: the switching function is done by computer but the calls continue to be processed in their analog form. The spread of these technologies is shown in Table 10.

The use of digital technology has allowed local telephone companies to equip most of their offices for the provision of "equal access" to competing long distance carriers. Newer signaling systems have been developed that permit calls to be set up more quickly and efficiently. In the late 1980's, telephone company offices began to be converted to the newest system, "Signaling System 7." For several years the telephone industry has been working to develop standards for an Integrated Systems Digital Network (ISDN). One of the attractions of ISDN is that ordinary local telephone lines (copper loops) can transport high speed data between computers and handle more than one telephone conversation at a time. ISDN, however, has not yet been deployed except on an experimental basis. The number of offices and lines equipped for these features are shown in Table 11.

2. 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 well over 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.

TABLE 10

CENTRAL OFFICES AND ACCESS LINES BY TECHNOLOGY (BELL OPERATING COMPANIES)

YEAR END	TOTAL OFFICES	ELECTRO–MECHANICAL OFFICES		ANALOG STORED PROGRAM CONTROL OFFICES		DIGITAL STORED PROGRAM CONTROL OFFICES	
1980	9,195	6,842	74.4 %	2,353	25.6 %	0	0.0 %
1981	9,198	6,647	72.3	2,527	27.5	24	0.3
1982	9,173	6,357	69.3	2,736	29.8	80	0.9
1983	9,156	6,075	66.3	2,910	31.8	171	1.9
1984	9,102	5,714	62.8	3,041	33.4	347	3.8
1985	9,124	5,244	57.5	3,020	33.1	860	9.4
1986	9,167	4,604	50.2	2,943	32.1	1,620	17.7
1987	9,190	3,819	41.6	2,833	30.8	2,538	27.6
1988	9,300	3,031	32.6	2,692	28.9	3,577	38.5
1989	9,338	2,416	25.9	2,519	27.0	4,403	47.2
1990 *	9,352	1,804	19.3	2,209	23.6	5,339	57.1
1991 *	9,338	1,199	12.8	2,166	23.2	5,973	64.0
1992 *	9,314	825	8.9	2,043	21.9	6,446	69.2
1993 *	9,320	659	7.1	1,919	20.6	6,742	72.3
1994 *	9,311	510	5.5	1,789	19.2	7,012	75.3

ACCESS LINES SERVED BY TYPE OF OFFICE (THOUSANDS)

YEAR END	TOTAL OFFICES	ELECTRO–MECHANICAL OFFICES		ANALOG STORED PROGRAM CONTROL OFFICES		DIGITAL STORED PROGRAM CONTROL OFFICES	
1980	81,032	44,930	55.4 %	36,092	44.5 %	10	0.0 %
1981	82,581	40,425	49.0	42,099	51.0	57	0.1
1982	83,819	36,813	43.9	46,803	55.8	203	0.2
1983	86,186	32,652	37.9	52,919	61.4	615	0.7
1984	88,630	30,074	33.9	56,404	63.6	2,151	2.4
1985	91,455	24,778	27.1	58,532	64.0	8,145	8.9
1986	93,630	19,491	20.8	59,252	63.3	14,886	15.9
1987	96,593	14,205	14.7	59,442	61.5	22,946	23.8
1988	99,564	8,707	8.7	60,364	60.6	30,493	30.6
1989	102,684	5,646	5.5	58,846	57.3	38,192	37.2
1990 *	106,016	2,987	2.8	56,991	53.8	46,038	43.4
1991 *	109,403	1,722	1.6	55,631	50.8	52,050	47.6
1992 *	112,655	954	0.8	53,843	47.8	57,858	51.4
1993 *	115,885	741	0.6	51,963	44.8	63,180	54.5
1994 *	121,706	803	0.7	52,258	42.9	68,646	56.4

* Projected in CC Docket 89–624.

TABLE 11

FEATURES AVAILABLE IN CENTRAL OFFICES (BELL OPERATING COMPANIES)

YEAR END	TOTAL OFFICES	EQUAL ACCESS OFFICES		SIGNALING SYSTEM 7 OFFICES		ISDN OFFICES	
1980	9,195	0	0.0 %	0	0.0 %	0	0.0 %
1981	9,198	0	0.0	0	0.0	0	0.0
1982	9,173	0	0.0	0	0.0	0	0.0
1983	9,156	0	0.0	0	0.0	0	0.0
1984	9,102	124	1.4	0	0.0	0	0.0
1985	9,124	1,891	20.7	0	0.0	0	0.0
1986	9,167	3,623	39.5	0	0.0	0	0.0
1987	9,190	4,823	52.5	29	0.3	4	0.0
1988	9,300	6,071	65.3	435	4.7	82	0.9
1989	9,338	6,788	72.7	931	10.0	179	1.9
1990 *	9,352	7,534	80.6	2,028	21.7	426	4.6
1991 *	9,338	7,951	85.1	2,834	30.3	1,591	17.0
1992 *	9,314	8,267	88.8	3,845	41.3	1,746	18.7
1993 *	9,320	8,449	90.7	4,566	49.0	1,952	20.9
1994 *	9,311	8,602	92.4	4,988	53.6	2,197	23.6

EQUIPPED ACCESS LINES BY TYPE OF OFFICE (THOUSANDS)

YEAR END	TOTAL OFFICES	EQUAL ACCESS OFFICES		SIGNALING SYSTEM 7 OFFICES		ISDN OFFICES	
1980	81,032	0	0.0 %	0	0.0 %	0	0.0 %
1981	82,581	0	0.0	0	0.0	0	0.0
1982	83,819	0	0.0	0	0.0	0	0.0
1983	86,186	146	0.2	0	0.0	0	0.0
1984	88,630	9,350	10.5	0	0.0	0	0.0
1985	91,455	49,241	53.8	0	0.0	0	0.0
1986	93,630	70,543	75.3	0	0.0	0	0.0
1987	96,593	81,743	84.6	1,035	1.1	12	0.0
1988	99,564	91,809	92.2	10,325	10.4	47	0.0
1989	102,684	97,410	94.9	21,917	21.3	111	0.1
1990 *	106,016	103,079	97.2	38,597	36.4	504	0.5
1991 *	109,403	107,205	98.0	53,066	48.5	1,053	1.0
1992 *	112,655	111,033	98.6	68,438	60.8	1,358	1.2
1993 *	115,885	114,669	99.0	79,926	69.0	1,874	1.6
1994 *	121,706	120,664	99.1	82,765	68.0	2,122	1.7

* Projected in CC Docket 89–624.

TABLE 12

EQUAL ACCESS CONVERSION SCHEDULE
(PERCENTAGE OF LINES CONVERTED)

	BELL COMPANIES	OTHER LARGE COMPANIES*	SMALL COMPANIES	TOTAL INDUSTRY
1984 THIRD QUARTER	1.1%	0.0%	0.0%	0.9%
FOURTH QUARTER	3.8	1.5	0.0	3.2
1985 FIRST QUARTER	12.1	2.4	0.0	9.8
SECOND QUARTER	26.9	3.7	0.0	21.4
THIRD QUARTER	43.0	4.0	0.0	34.0
FOURTH QUARTER	50.9	4.9	0.5	40.2
1986 FIRST QUARTER	56.8	11.9	2.7	46.0
SECOND QUARTER	61.9	18.4	4.0	51.0
THIRD QUARTER	71.5	27.4	5.9	59.9
FOURTH QUARTER	74.3	38.3	7.1	63.8
1987 FIRST QUARTER	76.4	45.3	9.1	66.6
SECOND QUARTER	77.7	50.9	10.9	68.7
THIRD QUARTER	80.4	57.9	12.7	72.0
FOURTH QUARTER	84.7	64.0	14.9	76.3
1988 FIRST QUARTER	86.5	66.2	15.8	78.1
SECOND QUARTER	87.4	68.5	17.3	79.3
THIRD QUARTER	88.5	71.3	18.6	80.6
FOURTH QUARTER	91.3	74.1	20.3	83.4
1989 FIRST QUARTER	92.6	76.5	22.0	84.8
SECOND QUARTER	93.4	77.6	23.1	85.7
THIRD QUARTER	94.1	79.1	24.3	86.5
FOURTH QUARTER	95.2	80.9	25.5	87.7
1990 FIRST QUARTER	95.7	81.9	26.5	88.4
SECOND QUARTER	96.0	83.3	29.0	89.0
THIRD QUARTER	96.4	83.8	30.3	89.5
FOURTH QUARTER	96.9	85.6	33.1	90.4
1991 FIRST QUARTER	97.1	85.9	33.8	90.6
SECOND QUARTER	97.2	86.5	35.3	90.9

* COMPANIES WITH $100 MILLION IN ANNUAL OPERATING REVENUES.

TELEPHONE LINES AND LOCAL TELEPHONE COMPANIES:

Within the telephone industry there are several alternative, but closely related, definitions of telephone lines or loops. While these differences often make it difficult to easily reconcile data from different statistical series, they are not usually large enough to affect comparisons among companies or trends over time.

Table 13 shows the nation's total number of local loops during each of the most recent 10 years for which data is available. With virtually all businesses having telephone lines and more than 90% of the nation's households having telephone service, the growth in the number of lines tends to reflect growth in the population and the economy -- averaging about 3% per year.

There are about 1300 local telephone companies in the United States. Table 14 shows the number of companies and the number of switched access lines in each state.

Table 13

Total U.S. Telephone Lines
(Local Loops)

	Loops	Annual Growth
1980	102,216,367	N.A.
1981	105,559,222	3.3%
1982	107,519,214	1.9
1983	110,612,689	2.9
1984	112,550,739	1.8
1985	116,042,281	3.1
1986	118,345,686	2.0
1987	123,565,205	4.4
1988	128,160,281	3.7
1989	131,455,922	2.6
1990	136,018,445	3.5

Table 14

Local Telephone Companies and Access Lines
by State as of June 30, 1991

State	Companies	Bell Company Lines	Other Company Lines	Total Lines
Alabama	30	1,502,933	370,521	1,873,454
Alaska	25	0	286,494	286,494
Arizona	11	1,771,679	105,944	1,877,623
Arkansas	28	722,356	338,676	1,061,032
California	22	13,417,923	3,845,996	17,263,919
Colorado	27	1,860,798	35,073	1,895,871
Connecticut	2	0	1,838,666	1,838,666
Delaware	1	392,400	0	392,400
District of Col.	1	809,666	0	809,666
Florida	13	4,468,938	3,129,186	7,598,124
Georgia	36	2,693,767	540,112	3,233,879
Hawaii	1	0	601,320	601,320
Idaho	20	356,781	121,134	477,915
Illinois	56	5,251,127	1,108,652	6,359,779
Indiana	42	1,645,456	1,038,610	2,684,066
Iowa	153	885,304	473,065	1,358,369
Kansas	40	1,046,793	216,826	1,263,619
Kentucky	19	945,090	681,804	1,626,894
Louisiana	20	1,803,471	135,964	1,939,435
Maine	19	551,781	109,209	660,990
Maryland	2	2,760,091	4,759	2,764,850
Massachusetts	3	3,461,836	3,347	3,465,183
Michigan	38	4,117,017	746,527	4,863,544
Minnesota	91	1,690,707	563,598	2,254,305
Mississippi	19	964,598	65,368	1,029,966
Missouri	44	1,966,390	634,529	2,600,919
Montana	17	310,659	88,040	398,699
Nebraska	42	441,966	376,577	818,543
Nevada	13	218,851	515,860	734,711
New Hampshire	12	575,338	38,440	613,778
New Jersey	3	4,790,177	151,401	4,941,578
New Mexico	14	590,245	98,387	688,632
New York	45	9,315,364	1,025,634	10,340,998
North Carolina	28	1,619,886	1,690,828	3,310,714
North Dakota	25	245,153	92,629	337,782
Ohio	44	3,200,660	2,165,267	5,365,927
Oklahoma	39	1,275,035	272,250	1,547,285
Oregon	34	1,008,330	430,919	1,439,249
Pennsylvania	39	4,988,637	1,442,491	6,431,128
Rhode Island	1	524,555	0	524,555
South Carolina	28	1,066,120	529,556	1,595,676
South Dakota	31	246,296	72,860	319,156
Tennessee	25	1,979,944	476,114	2,456,058
Texas	56	6,583,248	1,841,013	8,424,261
Utah	13	721,409	29,102	750,511
Vermont	9	264,994	50,342	315,336
Virginia	21	2,521,037	782,748	3,303,785
Washington	23	1,872,128	730,029	2,602,157
West Virginia	10	669,339	126,266	795,605
Wisconsin	95	1,694,372	855,484	2,549,856
Wyoming	11	216,102	18,609	234,711
United States	1441 *	102,026,747	30,896,226	132,922,973
Puerto Rico	2	0	925,491	925,491
Virgin Islands	1	0	47,999	47,999
Grand Total	1444 *	102,026,747	31,869,716	133,896,463

* This figure overstates the actual number of operating companies because many operating companies serve more than one state. There are about 1300 separate operating companies.

MINUTES OF CALLING:

1. Dial Equipment Minutes:

As in the case of telephone lines, there are many alternative measures of calling volumes. Most subscribers purchase service with unlimited local calling. As a result, most calls are not metered and estimates of total calling are subject to wide margins of error. Periodic studies are used within the telephone industry to estimate the number of calls and calling minutes for a variety of purposes. For example, periodic studies of dial equipment minutes (DEMs) are used to estimate the proportion of calling that is interstate and to allocate costs between interstate and intrastate services.

Dial equipment minutes are shown in Table 15. Dial equipment minutes are measured as calls enter and leave telephone switches. Therefore, two DEM minutes are counted for every conversation minute. The volume of local calls has grown at approximately the same rate as the number of local telephone lines. In contrast, the volume of long distance calling surged as prices fell. As a result, a greater portion of calls are long distance. Intrastate toll minutes increased from 8% of all minutes in 1980 to 12% in 1990. During that same period, interstate calling minutes increased from 8% of the total to 14%.

As shown in Table 16, the average telephone line is used primarily for local calling and is used somewhat less than an hour per day. This level has remained relatively constant for a long period of time despite increases in long distance calling and the introduction of facsimile machines and other devices that affect usage.

TABLE 15

DIAL EQUIPMENT MINUTES
(BILLIONS OF MINUTES)

	LOCAL	INTRASTATE TOLL	INTERSTATE TOLL	TOTAL
1980	1,458	141	133	1,733
1981	1,492	151	144	1,787
1982	1,540	158	154	1,853
1983	1,587	166	169	1,923
1984	1,639	198	208	2,045
1985	1,673	222	250	2,145
1986	1,699	237	270	2,207
1987	1,712	253	295	2,260
1988	1,795	268	321	2,383
1989	1,829	286	344	2,459
1990	1,853	300	354	2,507
INCREASE OVER PRIOR YEAR				
1981	2 %	7 %	8 %	3 %
1982	3	5	7	4
1983	3	5	10	4
1984	3	19	23	6
1985	2	12	20	5
1986	2	7	8	3
1987	1	7	9	2
1988	5	6	9	5
1989	2	7	7	3
1990	1	5	3	2
PERCENT DISTRIBUTION				
1980	84 %	8 %	8 %	100 %
1981	83	8	8	100
1982	83	9	8	100
1983	83	9	9	100
1984	80	10	10	100
1985	78	10	12	100
1986	77	11	12	100
1987	76	11	13	100
1988	75	11	13	100
1989	74	12	14	100
1990	74	12	14	100

TABLE 16

LINE USAGE PER DAY
(DIAL EQUIPMENT MINUTES PER LOCAL LOOP)

	LOCAL	INTRASTATE TOLL	INTERSTATE TOLL	TOTAL
1980	39	4	4	47
1981	39	4	4	46
1982	39	4	4	47
1983	39	4	4	48
1984	40	5	5	50
1985	39	5	6	51
1986	39	5	6	51
1987	38	6	7	50
1988	38	6	7	51
1989	38	6	7	51
1990	37	6	7	50
INCREASE OVER PRIOR YEAR				
1981	−1 %	4 %	5 %	−0 %
1982	1	3	5	2
1983	0	2	7	1
1984	1	17	21	5
1985	−1	9	17	2
1986	−0	5	6	1
1987	−3	2	5	−2
1988	1	2	5	2
1989	−1	4	4	1
1990	−2	1	−1	−1

2. Access Minutes:

An alternative measure of interstate calling became available in 1984. "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.

Table 17 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.

Telephone industry traffic experts usually argue that dial equipment minutes represent the best available information on the proportions of different types of calls while access minutes are the most accurate available data on the volume of interstate calling. However, for reasons that are far from clear, reported changes in access minutes are not entirely consistent with reported changes in dial equipment minutes.

TABLE 17.

INTERSTATE SWITCHED ACCESS MINUTES
(FIGURES SHOWN 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	54.4	2.6	57.0
1988 FIRST QUARTER	56.6	2.4	59.0
SECOND QUARTER	57.3	2.3	59.6
THIRD QUARTER	59.8	2.3	62.1
FOURTH QUARTER	61.8	2.2	64.0
1989 FIRST QUARTER	64.1	2.1	66.2
SECOND QUARTER	66.5	2.0	68.5
THIRD QUARTER	67.7	2.0	69.7
FOURTH QUARTER	70.7	1.9	72.6
1990 FIRST QUARTER	72.8	1.8	74.7
SECOND QUARTER	73.9	1.8	75.7
THIRD QUARTER	76.0	1.8	77.8
FOURTH QUARTER	77.6	1.6	79.2
1991 FIRST QUARTER	77.7	1.5	79.2
SECOND QUARTER	80.1	1.5	81.6
THIRD QUARTER	81.5	1.4	82.9
FOURTH QUARTER	82.8	1.4	84.2
1992 FIRST QUARTER	84.0	1.2	85.2
INCREASE OVER PRIOR YEAR:			
1986	18.3 %	–41.0 %	9.5 %
1987	21.0	–18.8	17.8
1988	15.5	–22.5	13.4
1989	14.3	–13.0	13.3
1990	11.6	–11.8	11.0
1991	7.2	–17.7	6.7

LONG DISTANCE CARRIERS:

Carrier Identification Codes provide 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 carrier identification code so that traffic can be efficiently routed.

Beginning in 1986, a number of corporations, government agencies and other organizations began to acquire carrier identification codes for their own use, rather than for the purpose of providing telecommunications services to others. After that time, the use of such codes to estimate the number of long distance carriers became less reliable. We believe, however, that the number of firms obtaining these codes provides the best information available on the entry of new firms into the long distance market prior to 1986. The number of firms holding these codes is shown in Table 18.

Table 19 shows several alternative sources of information on the development of long distance carriers. A large share of the firms purchasing access--well over 300 companies--purchase the premium access needed to provide direct dial long distance service.

Table 20 shows the number of long distance carriers that purchase different forms of access from the larger local telephone companies in each state. "Feature Group A" access requires a customer to dial a local telephone number to reach a long distance carrier. "Feature Group B" access involves dialing a seven digit number that begins with "950". "Feature Group D" access is the premium access used by major carriers to provide "1-plus" dialing. 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 smaller than the number of long distance carriers that purchase access somewhere in the state. No data is available for Alaska, which is not served by any of the reporting local companies.

Most small long distance carriers purchase access in only one state, providing nationwide service from the area in which they operate by reselling services purchased from other carriers. Table 21 shows the evolution of larger carriers that purchase equal access.

In January 1991, about 300 providers of operator services filed tariffs as required by the Telephone Operator Consumer Services Improvement Act of 1990. About 50 of these tariffs were

filed by long distance carriers that have been identified as purchasing access or having presubscribed lines. The remaining tariffs were filed by firms we had not previously identified. Thus, it appears that most firms providing operator services are operating as resellers without purchasing access. At the same time, most of the carriers purchasing access in order to provide long distance service do not appear to provide operator services.

TABLE 18

NUMBER OF FIRMS WITH CARRIER IDENTIFICATION CODES

YEAR	MONTH	FIRMS WITH CARRIER IDENTIFICATION CODES
1982	JUNE DECEMBER	13 11
1983	JUNE DECEMBER	25 42
1984	JUNE DECEMBER	65 123
1985	JUNE DECEMBER	179 217
1986	JUNE DECEMBER	276 334
1987	JUNE DECEMBER	397 451
1988	JUNE DECEMBER	489 493
1989	JUNE DECEMBER	544 577
1990	JUNE DECEMBER	611 601
1991	JUNE DECEMBER	597 631
1992	JUNE	664

TABLE 19

ALTERNATE SOURCES OF LONG DISTANCE CARRIER DATA

YEAR	MONTH	FIRMS WITH CARRIER IDENTIFICATION CODES	FIRMS PURCHASING ACCESS	CARRIERS PURCHASING EQUAL ACCESS 1/	CARRIERS WITH PRESUBSCRIBED LINES
1986	MARCH	231	*	169	*
	JUNE	276	*	183	*
	SEPTEMBER	302	506	190	*
	DECEMBER	334	533	210	*
1987	MARCH	360	561	211	*
	JUNE	397	*	213	*
	SEPTEMBER	421	*	224	*
	DECEMBER	451	540	239	223
1988	MARCH	471	511	238	*
	JUNE	489	519	248	242
	SEPTEMBER	464	506	256	*
	DECEMBER	493	510	266	253
1989	MARCH	520	519	274	*
	JUNE	544	*	287	276
	SEPTEMBER	560	*	304	*
	DECEMBER	577	514	318	302
1990	MARCH	594	512	289	*
	JUNE	611	506	288	314
	SEPTEMBER	636	511	304	*
	DECEMBER	601	499	304	325
1991	MARCH	571	505	306	*
	JUNE	597	542	327	355
	SEPTEMBER	605	538	337	*
	DECEMBER	631	576	351	*
1992	MARCH	616	595	361	*
	JUNE	664	*	370	*

* DATA NOT AVAILABLE

1/ DATA FOR THE PERIODS PRIOR TO MARCH 1990 INCLUDE A SMALL NUMBER OF FIRMS PURCHASING EQUAL ACCESS THAT WERE NOT CARRIERS.

TABLE 20

LONG DISTANCE CARRIERS PURCHASING ACCESS: JUNE 1992

STATE	FEATURE GROUP A	FEATURE GROUP B	FEATURE GROUP D	ANY
ALABAMA	19	20	20	34
ALASKA	N.A.	N.A.	N.A.	N.A.
ARIZONA	23	32	42	61
ARKANSAS	19	26	22	35
CALIFORNIA	55	77	56	107
COLORADO	23	40	36	65
CONNECTICUT	N.A.	23	28	33
DELAWARE	5	5	6	11
DIST OF COLUMBIA	44	37	34	67
FLORIDA	41	41	47	77
GEORGIA	49	41	32	71
HAWAII	2	6	8	11
IDAHO	2	21	22	28
ILLINOIS	43	53	51	89
INDIANA	32	32	30	49
IOWA	11	26	20	33
KANSAS	17	28	23	40
KENTUCKY	23	29	29	42
LOUISIANA	29	29	31	49
MAINE	3	11	11	13
MARYLAND	34	33	25	53
MASSACHUSETTS	33	22	24	49
MICHIGAN	43	44	34	73
MINNESOTA	22	40	27	54
MISSISSIPPI	16	16	17	28
MISSOURI	44	41	39	76
MONTANA	9	17	17	25
NEBRASKA	8	24	22	31
NEVADA	8	33	28	42
NEW HAMPSHIRE	5	12	13	16
NEW JERSEY	45	46	38	75
NEW MEXICO	15	28	32	44
NEW YORK	52	43	37	73
NORTH CAROLINA	28	25	19	36
NORTH DAKOTA	8	16	10	20
OHIO	39	48	41	70
OKLAHOMA	31	41	41	64
OREGON	17	31	32	44
PENNSYLVANIA	55	49	43	79
RHODE ISLAND	9	18	18	30
SOUTH CAROLINA	20	21	25	35
SOUTH DAKOTA	8	10	12	17
TENNESSEE	27	36	34	57
TEXAS	77	100	99	151
UTAH	10	22	23	36
VERMONT	5	14	13	16
VIRGINIA	25	26	25	40
WASHINGTON	28	45	37	62
WEST VIRGINIA	14	15	12	20
WISCONSIN	34	36	39	58
WYOMING	4	11	12	19
UNDUPLICATED TOTAL	263	333	370	480

N.A. -- Not Available.

TABLE 21

NUMBER OF LONG DISTANCE CARRIERS PURCHASING EQUAL ACCESS IN FOUR OR MORE STATES

YEAR	MONTH	CARRIERS SERVING 45 OR MORE STATES	CARRIERS SERVING 25 TO 44 STATES	CARRIERS SERVING 12 TO 24 STATES	CARRIERS SERVING 4 TO 11 STATES	TOTAL CARRIERS SERVING 4 OR MORE STATES
1986	MARCH	2	6	1	14	23
	JUNE	2	6	1	14	23
	SEPTEMBER	3	5	1	15	24
	DECEMBER	3	5	1	14	23
1987	MARCH	3	5	1	18	27
	JUNE	3	4	2	20	29
	SEPTEMBER	3	4	2	19	28
	DECEMBER	3	3	4	16	26
1988	MARCH	3	5	4	12	24
	JUNE	4	4	4	18	30
	SEPTEMBER	4	5	3	17	29
	DECEMBER	4	5	3	21	33
1989	MARCH	4	6	3	24	37
	JUNE	5	6	4	28	43
	SEPTEMBER	5	7	7	30	49
	DECEMBER	7	5	9	34	55
1990	MARCH	7	5	8	37	57
	JUNE	7	6	9	36	58
	SEPTEMBER	6	5	9	38	58
	DECEMBER	6	3	12	37	58
1991	MARCH	6	2	14	38	60
	JUNE	5	3	15	39	62
	SEPTEMBER	5	3	16	41	65
	DECEMBER	6	3	15	44	68
1992	MARCH	6	3	16	52	77
	JUNE	5	6	17	50	78

LONG DISTANCE MARKET SHARES:

1. Minutes of Interstate Calling

Measures of switched access minutes first became available in 1984 and were shown in Table 17. Such information is publicly available for the total industry and for AT&T but not for other carriers. Thus, access minutes can be used to compute a market share for AT&T but not for smaller carriers.

Since 1984, interstate calling has grown at an annual rate of about 12%. AT&T's traffic has grown at a rate slower than the industry average and the remaining traffic, handled by all other carriers, grew at a rapid rate -- averaging over 25% 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 22. AT&T's share of the interstate market, measured in minutes, declined from over 80% in late 1984 to less than 65% by the early 1990's. At the same time, its share of the equal access market, which was 100% prior to the implementation of equal access, has also declined to less than 65%.

2. "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.

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. This information is shown in Table 23.

NECA reports that, in June 1991, there were 134 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 remained roughly constant while the number of lines

presubscribed to other carriers has grown. During 1991, about 75% of these lines were presubscribed to AT&T, 13% to MCI, and 7% to US Sprint. About three hundred smaller carriers, serving some 6 million lines, account for the remaining 5% 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 lower for AT&T than for other carriers.

3. 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 1991, services provided by long distance carriers generated more than $55 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 slightly 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 24. During 1984, AT&T's toll revenues of $35 billion accounted for about 90% of the revenues received by all long distance carriers. By 1991, with its revenues virtually unchanged, its share of total revenues had fallen to about 62%.

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 $69 billion in 1991, with AT&T accounting for about half of the total.

Chart 1 compares alternative measures of AT&T's market share using minutes, lines and revenues. In that chart, a second measure of revenues has been added. The alternative measure is based on financial reports to stockholders. Revenues reported to the FCC usually differ from revenues reported to stockholders. The largest differences tend to relate to the treatment of access charges and international settlements--accounting for the difference between the annual revenue share points labeled "FCC" and the revenue share line labeled "SEC" in Chart 1.

TABLE 22

AT&T'S SHARE OF INTERSTATE MINUTES

	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	92.2	78.9
FOURTH QUARTER	87.9	77.1
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	72.8	69.8
SECOND QUARTER	71.8	69.0
THIRD QUARTER	70.8	68.2
FOURTH QUARTER	69.6	67.2
1989 FIRST QUARTER	68.9	66.8
SECOND QUARTER	66.8	64.8
THIRD QUARTER	66.3	64.4
FOURTH QUARTER	65.6	63.9
1990 FIRST QUARTER	64.6	63.0
SECOND QUARTER	63.7	62.2
THIRD QUARTER	64.1	62.6
FOURTH QUARTER	64.1	62.8
1991 FIRST QUARTER	64.2	63.0
SECOND QUARTER	63.0	61.9
THIRD QUARTER	62.8	61.7
FOURTH QUARTER	63.3	62.2
1992 FIRST QUARTER	63.5	62.6

TABLE 23

"PRESUBSCRIBED" TELEPHONE LINES BY CARRIER
(Thousands of Lines)

	DEC 1987	JUNE 1988	DEC 1988	JUNE 1989	DEC 1989	JUNE 1990	DEC 1990	JUNE 1991
TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES	223	242	253	276	302	314	325	355
NUMBER OF PRESUBSCRIBED LINES:								
AT&T	101,653	100,833	100,206	100,007	99,397	99,613	100,062	101,014
MCI	9,991	10,941	12,150	13,672	15,056	16,864	17,435	17,603
US SPRINT	5,836	6,382	7,197	7,675	8,168	8,148	8,744	8,702
ALL OTHER CARRIERS	3,987	4,509	4,808	5,393	5,863	6,152	6,168	6,577
TOTAL INDUSTRY LINES	121,467	122,665	124,361	126,747	128,482	130,777	132,409	133,896
ANNUAL CHANGE:								
AT&T	–	–	–1.4%	–0.8%	–0.8%	–0.4%	0.7%	1.4%
MCI	–	–	21.6%	25.0%	23.9%	23.4%	15.8%	4.4%
US SPRINT	–	–	23.3%	20.2%	13.5%	6.2%	7.1%	6.8%
ALL OTHER CARRIERS	–	–	20.6%	19.6%	21.9%	14.1%	5.2%	6.9%
TOTAL INDUSTRY LINES	–	–	2.4%	3.3%	3.3%	3.2%	3.1%	2.4%
PERCENTAGE SHARE OF TOTAL LINES:								
AT&T	83.7%	82.2%	80.6%	78.9%	77.4%	76.2%	75.6%	75.4%
MCI	8.2%	8.9%	9.8%	10.8%	11.7%	12.9%	13.2%	13.1%
US SPRINT	4.8%	5.2%	5.8%	6.1%	6.4%	6.2%	6.6%	6.5%
ALL OTHER CARRIERS	3.3%	3.7%	3.9%	4.3%	4.6%	4.7%	4.7%	4.9%
TOTAL INDUSTRY LINES	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

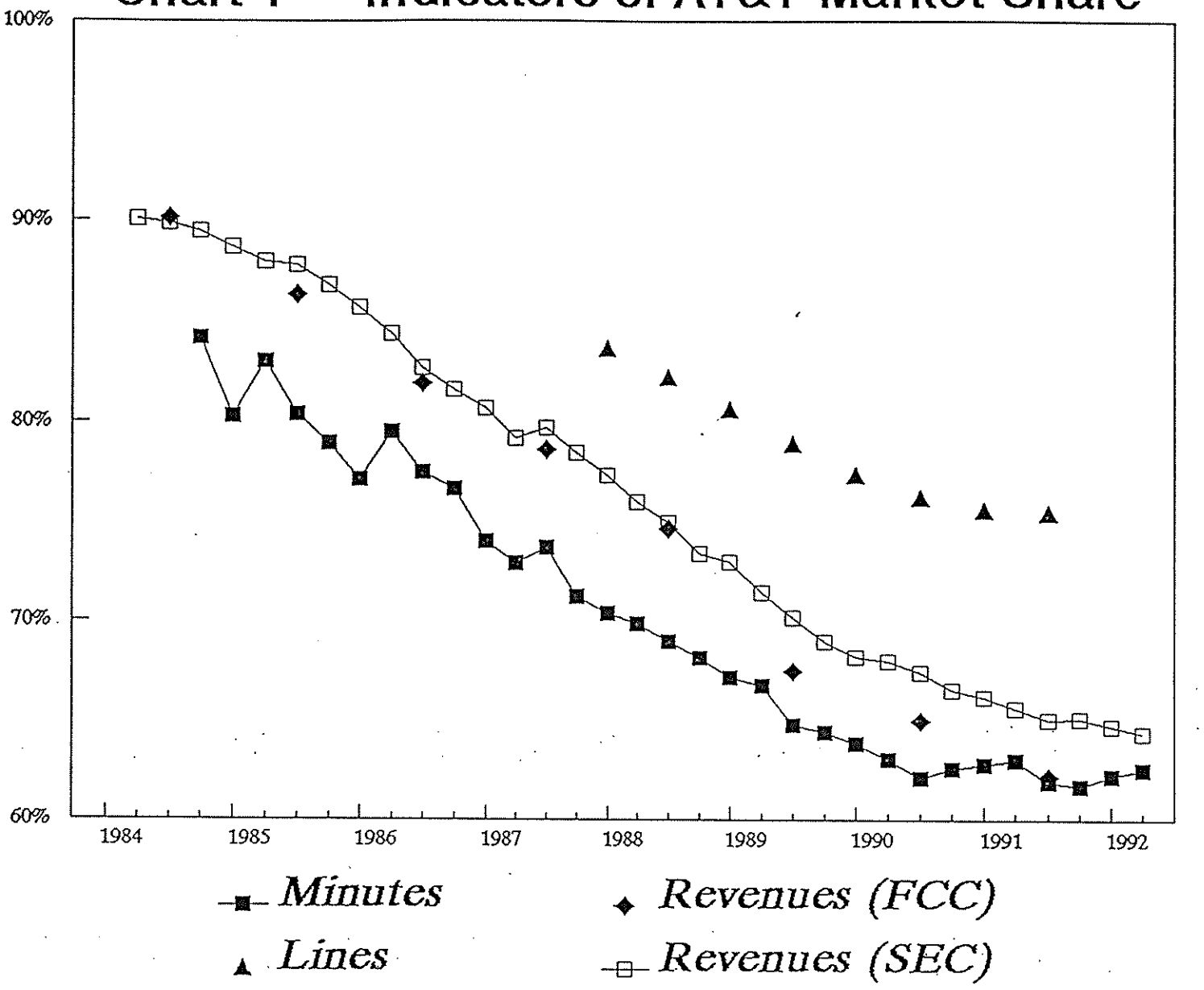
TABLE 24–TOTAL TOLL SERVICE REVENUES
(DOLLAR AMOUNTS SHOWN IN MILLIONS)

COMPANY	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
AT&T COMMUNICATIONS				$34,935	$36,770	$36,514	$35,219	$35,407	$34,549	$33,880	$34,384
MCI TELECOMMUNICATIONS 1/	$413	$602	$1,326	1,761	2,331	3,372	3,938	4,886	6,171	7,392	8,266
(TELECOM*USA)				105	201	291	396	524	713		
US SPRINT 2/						1,141	2,592	3,405	4,320	5,041	5,378
(GTE SPRINT)	231	393	740	1,052	1,122	779					
(US TELECOM)					387	212					
CABLE & WIRELESS					146	171	180	218	275	359	406
WILLIAMS TELECOMMUNICATIONS GROUP									300	376	405
METROMEDIA COMMUNICATIONS CORP. 3/									127	381	369
(ITT COMMUNICATION SERVICES, INC.)	83	128	163	161	241	282	287	379	404		
ADVANCED TELECOMMUNICATIONS CORP.				72	86	124	162	178	326	342	356
ALLNET 4/					309	450	395	394	334	326	347
(LEXITEL)					127						
ALASCOM	191	238	257	255	271	267	262	272	278	259	338
TELESPHERE NETWORK, INC. 5/									192	293	308
(NATIONAL TELEPHONE SERVICES, INC.)									150		
LDDS COMMUNICATIONS, INC.									110	154	263
LITEL TELECOMMUNICATIONS, INC.									197	215	208
INTERNATIONAL TELECHARGE, INC.									275	230	181
RCI CORPORATION/RCI NETWORK SVCS.									104	142	155
COMSYSTEMS NETWORK SERVICES										130	131
OTHERS 6/	144	263	443	414	639	992	1,352	1,823	2,359	2,582	3,765
TOTAL LONG DISTANCE CARRIERS				38,755	42,630	44,595	44,783	47,487	51,184	52,102	55,260
AT&T COMMUNICATIONS SHARE:				90.1%	86.3%	81.9%	78.6%	74.6%	67.5%	65.0%	62.2%
MCI TELECOMMUNICATIONS SHARE:				4.5%	5.5%	7.6%	8.8%	10.3%	12.1%	14.2%	15.0%
US SPRINT SHARE:				2.7%	2.6%	4.3%	5.8%	7.2%	8.4%	9.7%	9.7%
ALL OTHER CARRIERS:				2.6%	5.6%	6.3%	6.8%	8.0%	12.0%	11.1%	13.1%
BELL OPERATING COMPANIES				9,037	9,026	9,599	10,268	10,668	10,549	10,578	10,066
OTHER LOCAL TELEPHONE COMPANIES 6/				3,364	3,159	3,274	3,468	4,445	4,291	4,112	4,049
TOTAL LOCAL EXCHANGE COMPANIES				12,401	12,185	12,873	13,736	15,113	14,840	14,690	14,115
TOTAL TOLL SERVICES REVENUES 7/	39,180	43,919	46,970	51,156	54,815	57,468	58,519	62,600	66,024	66,792	69,375
AT&T COMMUNICATIONS SHARE:				68.3%	67.1%	63.5%	60.2%	56.6%	52.3%	50.7%	49.6%
MCI TELECOMMUNICATIONS SHARE:				3.4%	4.3%	5.9%	6.7%	7.8%	9.3%	11.1%	11.9%
US SPRINT SHARE:				2.1%	2.0%	3.3%	4.4%	5.4%	6.5%	7.5%	7.8%
ALL OTHER CARRIERS:				2.0%	4.4%	4.9%	5.2%	6.1%	9.3%	8.7%	10.4%
LOCAL EXCHANGE COMPANIES SHARE:				24.2%	22.2%	22.4%	23.5%	24.1%	22.5%	22.0%	20.3%

SOURCES: LOCAL EXCHANGE CARRIER INFORMATION DERIVED FROM USTA ANNUAL REPORTS.
AT&T COMMUNICATIONS AND ALASCOM – STATISTICS OF COMMUNICATIONS COMMON CARRIERS.
OTHER COMPANIES:
1981–1982: ANNUAL REPORT FORM P.
1983–1991: AS REPORTED PURSUANT TO FCC REPORT AND ORDER IN CC DOCKET 83–1291.

1/ MCI TELECOMMUNICATIONS AND TELECOM*USA MERGED DURING 1989. INFORMATION FOR 1990 IS COMBINED.
2/ IN JULY 1986, GTE SPRINT AND US TELECOM MERGED AND BECAME KNOWN AS US SPRINT. THE INFORMATION SHOWN FOR GTE SPRINT AND US TELECOM FOR 1986 IS FOR JANUARY 1 – JUNE 30. THE INFORMATION SHOWN FOR US SPRINT FOR 1986 IS FOR JULY 1 – DECEMBER 31.
3/ METROMEDIA COMMUNICATIONS CORP. AND ITT COMMUNICATIONS CORP. MERGED DURING 1988. INFORMATION FOR 1989 WAS REPORTED SEPARATELY; INFORMATION FOR 1990 IS COMBINED.
4/ ALLNET AND LEXITEL MERGED AT THE END OF 1985. INFORMATION FOR 1986 IS COMBINED.
5/ TELESPHERE NETWORK, INC., AND NATIONAL TELEPHONE SERVICES, INC., MERGED DURING 1989. INFORMATION FOR 1990 IS COMBINED. AS OF DECEMBER 31, 1991, TELESPHERE NETWORK, INC., WAS IN BANKRUPTCY PROCEEDINGS. THEIR LONG DISTANCE OPERATIONS WERE ACQUIRED BY WILLIAMS TELECOMMUNICATIONS GROUP, INC.
6/ ESTIMATED BY FCC STAFF.
7/ WHILE TOTAL TOLL REVENUES ARE AVAILABLE PRIOR TO 1984, THE MANNER IN WHICH THEY WERE DIVIDED BETWEEN THE BELL SYSTEM AND OTHER TELEPHONE COMPANIES MAKES IT IMPOSSIBLE TO ACCURATELY DETERMINE THE AMOUNTS BILLED BY WHAT IS NOW AT&T COMMUNICATIONS, THE BELL COMPANIES, AND OTHER TELEPHONE COMPANIES.

Chart 1 – Indicators of AT&T Market Share



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-1992, programs had been established in 47 states, the District of Columbia, the Virgin Islands, and the Commonwealth of Puerto Rico. The states with each type of program are indicated in Table 25, along with the year during which a program was first certified.

CELLULAR TELEPHONE SERVICE:

The Federal Communications Commission licenses cellular telephone companies but does not impose reporting requirements on the cellular industry. The Cellular Telecommunications Industry Association periodically publishes summary information on their industry, a selection of which is shown in Table 26.

TABLE 25

LIFELINE AND LINK–UP TELEPHONE PROGRAMS
(YEAR FIRST CERTIFIED)

STATE	LIFELINE	LINK–UP
ALABAMA		87
ALASKA		
ARIZONA	86	88
ARKANSAS	86	87
CALIFORNIA	85	
COLORADO	90	90
CONNECTICUT		87
DELAWARE		
DISTRICT OF COLUMBIA	86	87
FLORIDA		88
GEORGIA	91	90
HAWAII	86	89
IDAHO	87	88
ILLINOIS		
INDIANA		88
IOWA		88
KANSAS		88
KENTUCKY		87
LOUISIANA		88
MAINE	87	87
MARYLAND	86	87
MASSACHUSETTS	90	90
MICHIGAN	89	89
MINNESOTA	88	88
MISSISSIPPI	91	88
MISSOURI	87	87
MONTANA	87	87
NEBRASKA		88
NEVADA	87	88
NEW HAMPSHIRE		88
NEW JERSEY		87
NEW MEXICO	87	87
NEW YORK	87	87
NORTH CAROLINA	86	87
NORTH DAKOTA	87	89
OHIO	87	87
OKLAHOMA		90
OREGON	86	88
PENNSYLVANIA		88
PUERTO RICO		88
RHODE ISLAND	87	87
SOUTH CAROLINA		87
SOUTH DAKOTA	88	88
TENNESSEE	92	88
TEXAS	88	87
UTAH	86	88
VERMONT	86	90
VIRGIN ISLANDS U.S.	91	91
VIRGINIA	87	87
WASHINGTON	87	90
WEST VIRGINIA	86	87
WISCONSIN	88	90
WYOMING	91	89

TABLE 26

CELLULAR TELEPHONE SERVICE

		NUMBER OF SYSTEMS	SUBSCRIBERS	SIX--MONTH REVENUES (THOUSANDS)	AVERAGE MONTHLY BILL
1984	DECEMBER	32	91,600	$178,085	
1985	JUNE	65	203,600	176,231	
	DECEMBER	102	340,213	306,197	
1986	JUNE	129	500,000	360,585	
	DECEMBER	166	681,825	462,467	
1987	JUNE	206	883,778	479,514	
	DECEMBER	312	1,230,855	672,005	$96.83
1988	JUNE	420	1,608,697	886,075	95.00
	DECEMBER	517	2,069,441	1,073,473	98.02
1989	JUNE	559	2,691,793	1,406,463	85.52
	DECEMBER	584	3,508,944	1,934,132	89.30
1990	JUNE	592	4,368,686	2,126,362	83.94
	DECEMBER	751	5,283,055	2,422,458	80.90
1991	JUNE	1,029	6,380,053	2,653,505	74.56
	DECEMBER	1,252	7,557,148	3,055,017	72.74
1992	JUNE	1,483	8,892,535	3,633,285	68.51

* * *

The statistical data summarized in this publication reflect some of the information compiled by the FCC's Industry Analysis Division. In most cases, the reports underlying this summary provide a much greater level of detail. Much of the information is available through an electronic bulletin board that can be reached by dialing (202) 632-1361.

Printed copies of statistical reports are available in the Industry Analysis Division's Public Reference Room (Room 10 at 1250 23d Street, N.W.) and from the Commission's duplicating contractor (Downtown Copy Center, 202-452-1422).

Additional information on regulated carriers, including investments, revenues, expenses, and earnings, is contained in the annual Statistics of Communications Common Carriers, available from the U.S. Government Printing Office.

FCC rules require carriers to provide more data about international telephone service than about domestic service. Because of delays in international settlements, such information is typically received by the commission much later than domestic data and is usually published separately.

The information on cellular telephone service shown in Table 26 was prepared by the Cellular Telecommunications Industry Association (1133 21st Street N.W., Washington D. C., (202) 785-0081).

The United States Telephone Association represents virtually all local telephone companies (900 19th Street N.W., Washington D.C. 20006 -- (202) 835-3100). Like many trade associations, it collects information from each of its members. Annually, it publishes and sells statistical publications such as Phone Facts and Statistics of the Local Exchange Carriers.

Two widely used sources of names, addresses and other information for companies in the telephone industry are Telephony's Directory & Buyers' Guide for the Telecommunications Industry and the Telephone Engineer and Management Directory.

For more information, the following individuals may be contacted at (202) 632-0745:

Consumer Expenditures	Jim Lande
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Lines and Calling Volumes	Alexander Belinfante
Long Distance Companies	Katie Rangos
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Prices and Rates	Jim Lande
Quality of Service	Jonathan Kraushaar
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