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FCC RELEASES STUDY ON TELEPHONE TRENDS

The FCC has released a report entitled Trends in Telephone Service. This report is designed to provide answers to some of the most frequently asked questions about the telephone industry -- questions asked by consumers, members of Congress, other government agencies, telecommunications carriers, and members of the business and academic communities. To this end, the report contains summary information about the size, growth, and development of the telephone industry, including data on market shares, minutes of calling, number of lines, and telephone subscribership. The report also provides information about telephone rates and price changes, consumer expenditures for service, access charges, long distance carriers, complaints, employment, infrastructure, universal service programs, and international telephone traffic.

This report is available for reference in the Common Carrier Bureau Public Reference Room, 2000 M Street, N.W., Room 575. Copies may be purchased by calling International Transcription Services, Inc. (ITS) at (202) 857-3800. The report can be downloaded [file name: TREND1.ZIP] from the **FCC-State Link** internet site, which can be reached via a link from the Common Carrier Bureau home page (http://www.fcc.gov/ccb/) on the World Wide Web. The report can also be downloaded from the **FCC-State Link** computer bulletin board at (202) 418-0241.

FCC

For further information, contact the Industry Analysis Division, Common Carrier Bureau, at (202) 418-0940.

TRENDS IN TELEPHONE SERVICE

Industry Analysis Division
Common Carrier Bureau
Federal Communications Commission
March 1997

This report is available for reference in the Common Carrier Bureau's Public Reference Room, 2000 M Street, N.W., Room 575. Copies may be purchased by calling International Transcription Services, Inc. (ITS) at (202) 857-3800. The report can be downloaded [file name: TREND1.ZIP] from the **FCC-State Link** internet site, which can be reached via a link from the Common Carrier Bureau home page (http://www.fcc.gov/ccb/) on the World Wide Web. The report can also be downloaded from the **FCC-State Link** computer bulletin board system at (202) 418-0241.

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INTRODUCTION:

Trends in Telephone Service is published by the Industry Analysis Division of the Common Carrier Bureau of the Federal Communications Commission (FCC). We have designed this report to provide answers to some of the most frequently asked questions about the telephone industry -- questions asked by consumers, members of Congress, other government agencies, telecommunications carriers, and members of the business and academic communities. To this end, the report contains summary information about the size, growth, and development of the telephone industry, including data on market shares, minutes of calling, number of lines, and telephone subscribership. The report also provides information about telephone rates and price changes, consumer expenditures for service, access charges, long distance carriers, infrastructure, universal service programs, and international telephone traffic.

Trends in Telephone Service summarizes a variety of information contained in other reports that are published periodically by the Industry Analysis Division. In most cases, these other reports give much more detailed information than that provided here. These reports can be accessed from our Internet site which is mentioned at the end of the text. In addition, to facilitate further information gathering by consumers and others, we have listed additional sources of information at the end of this report.

TELEPHONE SUBSCRIBERSHIP:

Under contract with the FCC, 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.

Nearly seventeen 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 0.2% from November to March, followed by a decrease of 0.1% 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.

Prior to 1980, historical estimates of telephone penetration were based on a comparison of the number of residential main stations to the number of households. These estimates became less reliable at that point because of the emergence of an increasing number of households with multiple phone lines. In the 1980 decennial census, the question "Do you have a telephone?" was added to the long-form questionnaire. The 1980 and 1990 percentages in Table 3 are based on those responses. With the telephone companies no longer owning the telephone instruments, however, it is possible for someone to have a telephone but not have service. This may account for some of the discrepancy between the 1990 percentages in Tables 1 and 3.

For other countries of the world, telephone development is often measured as the number of access lines per 100 people. This measure includes both residential and business lines. Historical estimates for the United States, using the decennial census population counts, are shown in Table 3.

To help evaluate the effect of the Commission's lifeline program on telephone penetration, Table 4 compares penetration rates for states with and without lifeline programs. As can be seen in the table, penetration increases have been greater on average in states with lifeline programs than in states without lifeline programs, both for all households and for low-income households. Between March 1984 and March 1996, the overall average penetration rate for states with lifeline programs increased by 2.5%, which was statistically significant. The increase for states without programs was 0.5%, which was not statistically significant. For households with incomes under $10,000 (expressed in 1984 dollars), which would be the households primarily affected by the lifeline programs, the average increase was 6.4% for states with programs, again statistically significant, versus 2.2% for states without programs, again not statistically significant.

TABLE 1

HOUSEHOLD TELEPHONE SUBSCRIBERSHIP IN THE UNITED STATES

	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
JULY	96.6	90.6	93.8	6.0	6.2
NOVEMBER	97.0	91.0	93.8	6.0	6.2
1993 MARCH	97.3	91.6	94.2	5.7	5.8
JULY	97.9	92.2	94.2	5.7	5.8
NOVEMBER	98.8	93.0	94.2	5.8	5.8
1994 MARCH	98.1	92.1	93.9	6.0	6.1
JULY	98.6	92.4	93.7	6.2	6.3
NOVEMBER	99.8	93.7	93.8	6.2	6.2
1995 MARCH	99.9	93.8	93.9	6.1	6.1
JULY	100.0	94.0	94.0	6.0	6.0
NOVEMBER	100.4	94.2	93.9	6.2	6.1
1996 MARCH	100.6	94.4	93.8	6.2	6.2
JULY	101.2	95.0	93.9	6.1	6.1
NOVEMBER	101.3	95.1	93.9	6.2	6.1

SOURCE: INDUSTRY ANALYSIS DIVISION, *TELEPHONE SUBSCRIBERSHIP IN THE UNITED STATES.*

TABLE 2

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

STATE	1984	1996	CHANGE
ALABAMA	88.4 %	92.2 %	3.7 % *
ALASKA	86.5	94.4	7.9 *
ARIZONA	86.9	93.1	6.2 *
ARKANSAS	86.6	86.9	0.3
CALIFORNIA	92.5	95.0	2.6 *
COLORADO	93.2	95.5	2.2 *
CONNECTICUT	95.5	97.5	2.0 *
DELAWARE	94.3	96.1	1.8
DISTRICT OF COLUMBIA	94.9	93.0	(1.9)
FLORIDA	88.7	93.1	4.4 *
GEORGIA	86.2	89.7	3.5 *
HAWAII	93.5	94.8	1.3
IDAHO	90.7	92.9	2.2
ILLINOIS	94.2	93.0	(1.2)
INDIANA	91.6	93.7	2.2 *
IOWA	96.2	96.6	0.4
KANSAS	94.3	93.9	(0.4)
KENTUCKY	88.1	92.3	4.2 *
LOUISIANA	89.7	91.1	1.4
MAINE	93.4	96.5	3.1 *
MARYLAND	95.7	96.7	1.0
MASSACHUSETTS	95.9	95.7	(0.2)
MICHIGAN	92.8	95.0	2.1 *
MINNESOTA	95.8	97.1	1.3
MISSISSIPPI	82.4	87.5	5.2 *
MISSOURI	91.5	95.3	3.9 *
MONTANA	91.0	94.3	3.3 *
NEBRASKA	95.7	96.0	0.3
NEVADA	90.4	93.5	3.1 *
NEW HAMPSHIRE	94.3	96.1	1.8
NEW JERSEY	94.8	93.6	(1.2)
NEW MEXICO	82.0	86.2	4.2 *
NEW YORK	91.8	93.4	1.7 *
NORTH CAROLINA	88.3	93.5	5.2 *
NORTH DAKOTA	94.6	96.3	1.7
OHIO	92.4	94.5	2.1 *
OKLAHOMA	90.3	91.3	1.1
OREGON	90.6	96.0	5.4 *
PENNSYLVANIA	94.9	96.9	2.1 *
RHODE ISLAND	93.6	95.7	2.1 *
SOUTH CAROLINA	83.7	91.3	7.6 *
SOUTH DAKOTA	93.2	93.3	0.1
TENNESSEE	88.5	94.0	5.5 *
TEXAS	88.4	91.0	2.6 *
UTAH	92.5	96.7	4.1 *
VERMONT	92.3	95.9	3.7 *
VIRGINIA	93.1	94.9	1.8
WASHINGTON	93.0	94.5	1.5
WEST VIRGINIA	87.7	92.9	5.2 *
WISCONSIN	95.2	97.0	1.8
WYOMING	89.9	95.0	5.2 *
TOTAL UNITED STATES	91.6	94.2	2.6 *

SOURCE: INDUSTRY ANALYSIS DIVISION, *TELEPHONE SUBSCRIBERSHIP IN THE UNITED STATES.*

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

CHANGES MAY NOT BE THE SAME AS CALCULATED DIFFERENCES, DUE TO ROUNDING.

TABLE 3

HISTORICAL TELEPHONE PENETRATION ESTIMATES

Year	Percentage of Households with Telephones	Access Lines per 100 Population
1920	35.0 %	9.6
1930	40.9	12.5
1940	36.9	12.7
1950	61.8	21.7
1960	78.3	27.6
1970	90.5	35.0
1980	92.9	46.2
1990	94.8	54.8

Sources: FCC staff estimates based on data from the Bureau of the Census, *Historical Statistics of the United States, Colonial Times to 1970,* Part 2, page 783, for all percentage data except 1980 and 1990, which are from the decennial censuses. Access line data for 1920 through 1970 are estimated by multiplying the number of telephones by the proportion of main plus equivalent main stations to total telephones for the Bell System. Prior to 1950, the 1950 proportion is used. For 1980 and 1990, access lines reported by USTA are used.

TABLE 4

COMPARISON OF PENETRATION RATES FOR STATES WITH AND WITHOUT LIFELINE PROGRAMS

ALL HOUSEHOLDS			
	March 1984	March 1996	Change
States with Lifeline Programs	91.3 %	93.9 %	2.5 % *
States without Lifeline Programs	93.4	93.9	0.5
Total United States	91.8	93.9	2.0 *
HOUSEHOLDS WITH INCOMES UNDER $10,000 #			
States with Lifeline Programs	78.8 %	85.2 %	6.4 % *
States without Lifeline Programs	83.9	86.2	2.2
Total United States	80.1	85.4	5.3 *

Source: INDUSTRY ANALYSIS DIVISION, *Telephone Penetration by Income by State.*

* Change is statistically significant at the 95% confidence level.

Income expressed in March 1984 dollars. $10,000 in March 1984 dollars is equivalent to $15,175 in March 1996 dollars.

Changes may not be the same as calculated differences, due to rounding.

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 from 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 5 shows long-term 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. The annual rate of change is shown in Table 6 for the overall CPI (which measures the impact of inflation on consumers) and the CPI for telephone services. In addition, Table 6 shows the Gross Domestic Product fixed-weight price index (which measures inflation throughout the economy) prepared by the Bureau of Economic Analysis.

3. Price Index 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, charges for special services such as call waiting, and all other expenditures. The annual rates of change for these indexes of local costs are presented in Table 7.

4. Price Indexes for Long Distance Service:

Price index data is available for intrastate toll and interstate toll services since December 1977. These series are also presented in Table 7.

5. Price Index Limitations:

Price indexes are less reliable when industries are changing rapidly. For example, in 1992, long distance carriers began to increase basic rates while greatly expanding their range of discount offerings. The fixed market basket of toll calls measured for the CPI did not fully reflect these discounts. In 1995, the BLS made major changes to the PPI telephone series, and there is no data after July 1995 that is comparable with prior data. Because of these sorts of difficulties, measures of average revenues are sometimes used as alternatives to price indexes.

TABLE 5

LONG-TERM CHANGES FOR VARIOUS PRICE INDEXES *
(ANNUAL RATES OF CHANGE)

	1935-1996	1986 - 1996
CPI all items	4.1 %	3.7 %
CPI all services	4.5	4.2
CPI telephone services	2.0	0.7
CPI major categories:		
- food & beverages	*	3.5
- housing	*	3.3
- apparel & upkeep	3.1	2.2
- transportation	3.9	3.4
- medical care	5.2	6.5
- entertainment	*	3.6
- other goods & services	*	5.9
CPI public transportation	5.0	4.5
CPI piped gas	3.5	0.7
CPI electricity	2.4	1.8
CPI sewer & water maintenance	*	5.5
CPI postage	4.2	3.8

Source: Bureau of Labor Statistics.

* Series not established until after 1935.

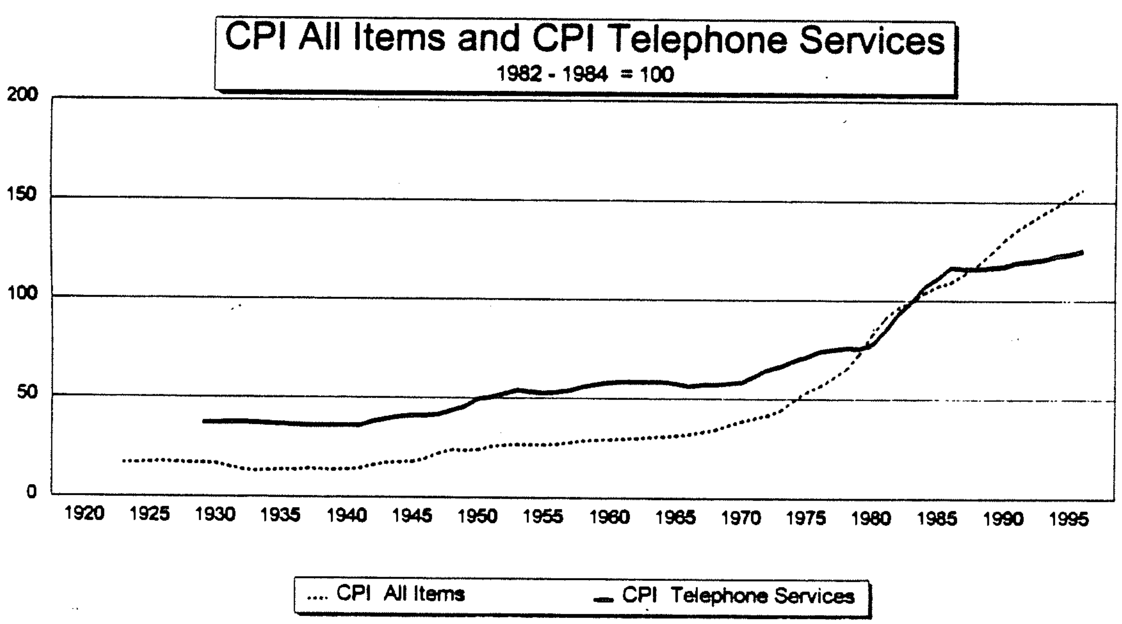


TABLE 6

ANNUAL CHANGES IN MAJOR PRICE INDEXES

	GDP Chain-type Price Index	CPI: All Items	CPI: Telephone Services
1978	7.2 %	9.0 %	0.9 %
1979	8.6	13.3	0.7
1980	9.2	12.5	4.6
1981	9.4	8.9	11.7
1982	6.2	3.8	7.2
1983	4.3	3.8	3.6
1984	3.7	3.9	9.2
1985	3.6	3.8	4.7
1986	2.5	1.1	2.7
1987	3.1	4.4	-1.3
1988	3.6	4.4	1.3
1989	4.2	4.6	-0.3
1990	4.3	6.1	-0.4
1991	4.0	3.1	3.5
1992	2.8	2.9	-0.3
1993	2.6	2.7	1.8
1994	2.3	2.7	0.7
1995	2.5	2.5	1.2
1996 *	2.1	3.0	1.5

Source: Bureau of Labor Statistics.

* The 1996 GDP price index changes are advance estimates and subject to revision.

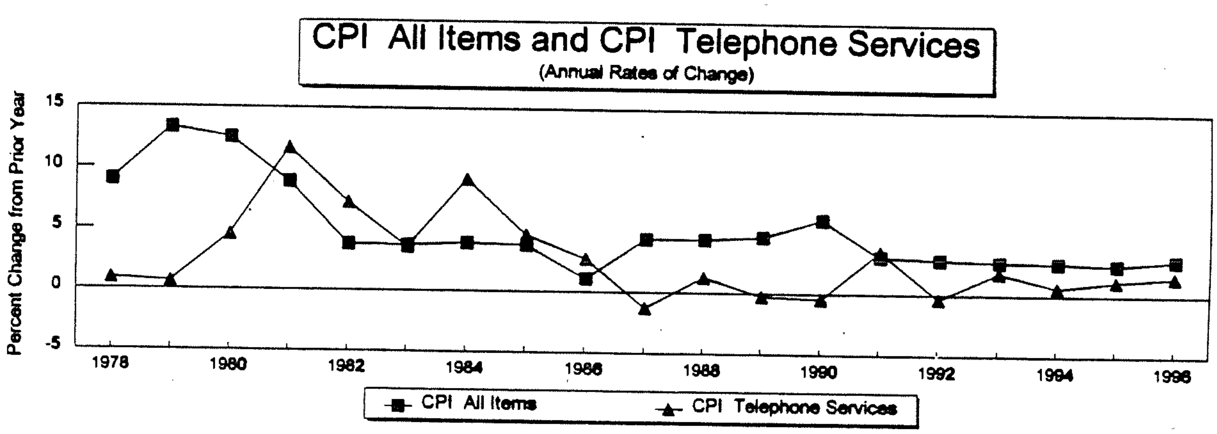


TABLE 7

ANNUAL CHANGES IN PRICE INDEXES FOR LOCAL AND LONG DISTANCE TELEPHONE SERVICES

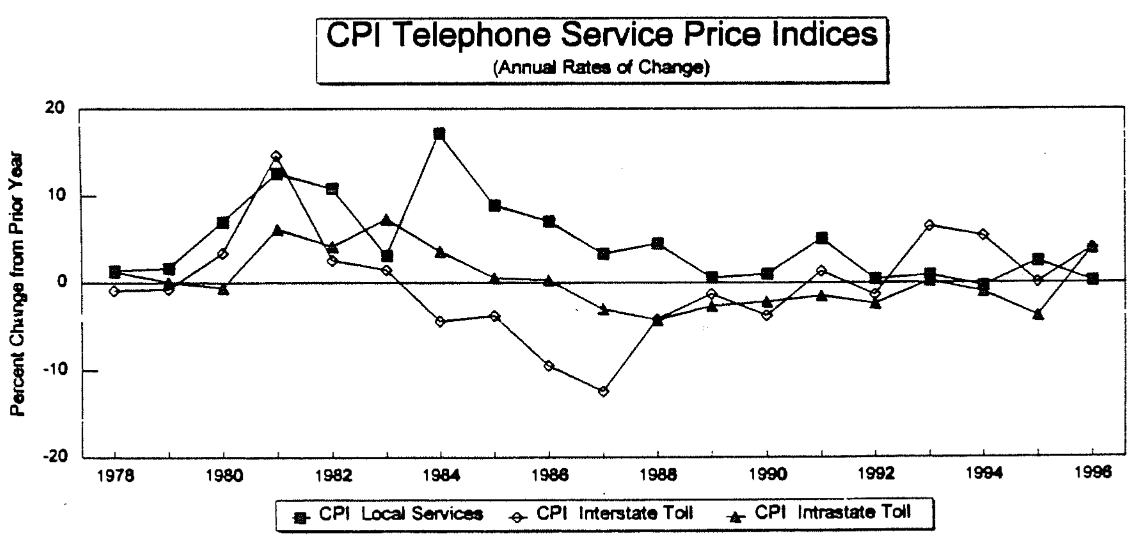
	Local Residential Service		Toll Service *			
	CPI: all local charges	PPI: Monthly Service Charges	Interstate Toll Calls		Intrastate Toll Calls	
			CPI	PPI	CPI	PPI
1978	1.4 %	3.1 %	-0.8 %	0.0 %	1.3 %	0.1 %
1979	1.7	1.6	-0.7	-0.9	0.1	-0.7
1980	7.0	7.1	3.4	5.5	-0.6	2.3
1981	12.6	15.6	14.6	15.9	6.2	8.0
1982	10.8	9.0	2.6	3.9	4.2	1.7
1983	3.1	0.2	1.5	0.0	7.4	3.9
1984	17.2	10.4	-4.3	-5.1	3.6	3.8
1985	8.9	12.4	-3.7	-3.0	0.6	2.1
1986	7.1	8.9	-9.4	-10.0	0.3	-3.5
1987	3.3	2.6	-12.4	-11.8	-3.0	-3.0
1988	4.5	4.6	-4.2	-2.1	-4.2	-3.7
1989	0.6	1.9	-1.3	-1.7	-2.6	0.5
1990	1.0	1.5	-3.7	-0.1	-2.2	-2.2
1991	5.1	2.1	1.3	-1.3	-1.5	-2.6
1992	0.5	-0.2	-1.3	1.0	-2.4	1.3
1993	1.0	0.8	6.5	3.8	0.2	-1.1
1994	-0.3	0.7	5.4	6.1	-1.0	-1.4
1995	2.6	**	0.1	**	-3.8	**
1996 **	0.2	0.4	4.0	6.1	4.0	-0.2

Source: Bureau of Labor Statistics.

* CPI toll indexes represent rates for households. Through 1994, PPI toll indexes represent rate changes for both business and residential consumers. Since 1995, PPI indices reflect rates for residential customers.

** The PPI telephone indices were revised in June of 1995. The series are not comparable.

*** Changes in PPI indices are for December 1995 to December 1996 and are preliminary.



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 8 presents average local rates for residential customers. In October 1995, the national average for flat-rate residential service was $19.49 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 1995, the national average for the lowest generally available recurring charge was $6.80. The average minimum monthly bill, including subscriber line charges and taxes, was $11.79.

Table 8 also shows rates for a single-line business customer. These rates are representative of the cost of a local access line for small businesses.

2. Long Distance Rates:

In Table 9, AT&T's basic schedule prices for directly dialed long distance calls are shown for January 1984 and January 1997. 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. In 1993, AT&T first began to charge different rates to residential and business customers. Since 1984, AT&T's basic schedule charges for directly dialed interstate calls have been reduced about 25%.

Table 10 contains average revenue per minute for interstate calls. From 1984 to 1994, AT&T's average revenue per minute declined from 32 cents per minute to 18 cents per minute -- a drop of 40%. Table 10 also shows revenue per minute estimates calculated by the FCC staff for all carriers. These estimates show that billed revenue per minute has continued to decline for both international and domestic services.

TABLE 8

AVERAGE MONTHLY LOCAL TELEPHONE RATES (IN OCTOBER OF EACH YEAR)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
RESIDENTIAL RATES*													
UNLIMITED LOCAL CALLING	$10.50	$12.10	$12.17	$12.58	$12.44	$12.32	$12.30	$12.39	$13.10	$13.12	$13.22	$13.28	$13.62
SUBSCRIBER LINE CHARGES	0.00	0.00	1.01	2.04	2.66	2.67	3.53	3.55	3.56	3.55	3.55	3.55	3.54
TAXES INCLUDING 911 CHARGES	1.08	1.25	1.36	1.51	1.56	1.58	1.70	1.85	2.00	2.03	2.17	2.24	2.34
TOTAL	$11.58	$13.35	$14.54	$16.13	$16.66	$16.57	$17.53	$17.79	$18.66	$18.70	$18.94	$19.07	$19.49
LOWEST GENERALLY AVAILABLE RATE	$5.37	$5.62	$5.75	$5.96	$5.81	$5.67	$5.67	$5.68	$6.18	$6.22	$6.43	$6.47	$6.80
TAXES INCLUDING 911 CHARGES	0.00	0.00	1.01	2.04	2.66	2.67	3.53	3.55	3.56	3.55	3.55	3.55	3.54
TAXES AND 911 CHARGES	0.56	0.58	0.70	0.84	0.94	0.91	1.03	1.15	1.28	1.31	1.45	1.50	1.56
TOTAL	$5.93	$6.20	$7.46	$8.84	$9.41	$9.25	$10.23	$10.38	$11.02	$11.08	$11.43	$11.52	$11.79
MINIMUM CONNECTION CHARGE***	$35.01	$43.71	$44.32	$45.63	$44.04	$42.94	$42.71	$43.06	$42.00	$41.52	$41.38	$41.26	$40.91
TAXES	1.75	2.19	2.22	2.28	2.20	2.11	2.24	2.32	2.19	2.18	2.21	2.27	2.42
TOTAL	$36.76	$45.90	$46.54	$47.91	$46.24	$45.05	$44.95	$45.38	$44.19	$43.70	$43.59	$43.53	$43.33
BUSINESS RATES													
REPRESENTATIVE RATE**	$29.16	$32.74	$33.42	$34.26	$33.71	$31.03	$31.06	$30.97	$32.29	$32.45	$32.70	$32.25	$32.46
TOUCH-TONE SERVICE	**	**	**	**	**	2.45	2.43	2.35	1.84	1.71	1.67	1.21	0.97
SUBSCRIBER LINE CHARGES	0.00	0.00	1.01	2.04	2.68	2.69	3.55	3.57	3.57	3.56	3.57	3.57	3.57
TAXES AND 911 CHARGES	3.35	3.77	3.96	4.17	4.18	3.95	4.21	4.32	4.42	4.57	4.63	4.61	4.77
TOTAL	$32.51	$36.51	$38.39	$40.47	$40.57	$40.12	$41.25	$41.21	$42.12	$42.29	$42.57	$41.64	$41.77
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	0.093	0.094	0.092	0.091
MINIMUM CONNECTION CHARGE***	$56.04	$68.84	$70.82	$72.94	$72.15	$0.00	$71.05	$71.36	$72.75	$72.55	$71.41	$69.88	$67.87
TOUCH-TONE SERVICE	**	**	**	**	**	2.03	1.70	1.89	1.13	1.19	1.17	0.92	0.27
TAXES	3.08	3.79	3.90	4.01	3.97	3.92	4.06	4.15	4.32	4.33	4.25	4.13	4.18
TOTAL	$59.12	$72.63	$74.72	$76.95	$76.12	$76.43	$76.81	$77.40	$78.20	$78.07	$76.83	$74.93	$72.32
5-MINUTE PAYPHONE CALL	0.168	0.212	0.222	0.223	0.226	0.228	0.228	0.228	0.228	0.228	0.235	0.238	0.248

NOTE -- AVERAGE MONTHLY LOCAL RATES ARE BASED ON SURVEYS BY FCC STAFF USING THE SAME SAMPLING AREAS AND WEIGHTS USED BY THE BUREAU OF LABOR STATISTICS IN CONSTRUCTING THE CONSUMER PRICE INDEX.

SOURCE: INDUSTRY ANALYSIS DIVISION, *REFERENCE BOOK: RATES, PRICE INDEXES, AND HOUSEHOLD EXPENDITURES FOR TELEPHONE SERVICE.*

* THE RESIDENTIAL RATES DO NOT INCLUDE ADDITIONAL CHARGES FOR TOUCH-TONE SERVICE, IF APPLICABLE.

** THE REPRESENTATIVE RATE IS THE MONTHLY SINGLE-LINE RATE FOR TOUCH-TONE SERVICE WITH UNLIMITED LOCAL CALLS (WHERE OFFERED) OR THE MEASURED SERVICE RATE PLUS ADDITIONAL CHARGES FOR THE FIRST 200 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, IF APPLICABLE. BUSINESS CONNECTION CHARGES FOR 1983 THROUGH 1987 INCLUDE THE ADDITIONAL CONNECTION CHARGE FOR INSTALLING TOUCH-TONE SERVICE. THE CHARGE IS SHOWN SEPARATELY THEREAFTER.

TABLE 9

CHANGES IN THE PRICE OF DIRECTLY DIALED FIVE–MINUTE LONG DISTANCE CALLS
(AT&T basic rate schedules*)

Calling Distance (in airline miles, rate center to rate center)		Residential January 1984	Residential January 1997	Residential Percentage Change	Business January 1984	Business January 1997	Business Percentage Change
1 – 10	Day	$0.96	$1.30	35.4 %	$0.96	$1.55	61.5 %
	Evening	0.57	0.70	22.8	0.57	0.99	73.7
	Night & Weekend	0.38	0.65	71.1	0.38	0.99	160.5
11 – 22	Day	1.28	1.40	9.4	1.28	1.55	21.1
	Evening	0.76	0.80	5.3	0.76	0.99	30.3
	Night & Weekend	0.51	0.65	27.5	0.51	0.99	94.1
23 – 55	Day	1.60	1.40	−12.5	1.60	1.55	−3.1
	Evening	0.96	0.85	−11.5	0.96	0.99	3.1
	Night & Weekend	0.64	0.65	1.6	0.64	0.99	54.7
56 – 124	Day	2.05	1.40	−31.7	2.05	1.67	−18.5
	Evening	1.22	0.85	−30.3	1.22	1.05	−13.9
	Night & Weekend	0.82	0.75	−8.5	0.82	1.05	28.0
125 – 292	Day	2.14	1.45	−32.2	2.14	1.67	−22.0
	Evening	1.28	0.85	−33.6	1.28	1.05	−18.0
	Night & Weekend	0.85	0.75	−11.8	0.85	1.05	23.5
293 – 430	Day	2.27	1.50	−33.9	2.27	1.67	−26.4
	Evening	1.36	0.95	−30.1	1.36	1.05	−22.8
	Night & Weekend	0.90	0.75	−16.7	0.90	1.05	16.7
431 – 925	Day	2.34	1.50	−35.9	2.34	1.67	−28.6
	Evening	1.40	0.95	−32.1	1.40	1.05	−25.0
	Night & Weekend	0.93	0.80	−14.0	0.93	1.05	12.9
926 – 1910	Day	2.40	1.50	−37.5	2.40	1.75	−27.1
	Evening	1.44	0.95	−34.0	1.44	1.10	−23.6
	Night & Weekend	0.96	0.80	−16.7	0.96	1.10	14.6
1911 – 3000	Day	2.70	1.55	−42.6	2.70	1.75	−35.2
	Evening	1.62	0.95	−41.4	1.62	1.10	−32.1
	Night & Weekend	1.08	0.80	−25.9	1.08	1.10	1.9
3001 – 4250	Day	2.80	1.60	−42.9	2.80	2.01	−28.2
	Evening	1.68	1.10	−34.5	1.68	1.41	−16.1
	Night & Weekend	1.12	0.85	−24.1	1.12	1.41	25.9
4251 – 5750	Day	2.91	1.75	−39.9	2.91	2.19	−24.7
	Evening	1.74	1.15	−33.9	1.74	1.47	−15.5
	Night & Weekend	1.16	0.85	−26.7	1.16	1.47	26.7

SOURCE: INDUSTRY ANALYSIS DIVISION, *REFERCENE BOOK: RATES, PRICE INDICES, AND EXPENDITURES FOR TELEPHONE SERVICE.*

* AT&T initiated a new rate structure for business customers on July 1, 1993. The rate structure consolidates mileage bands and replaces the evening and night & weekend periods with a single off–peak period. The new rates are shown in the old rate structure for purposes of comparison.

TABLE 10

AVERAGE REVENUE PER MINUTE

	AT&T	All Carriers **			
	All Interstate and International Switched Services *	All Interstate and International Switched Services	International Switched Services ***	All Interstate Switched Services	Interstate Direct Dialed Services
1984	32.3 ¢				
1985	30.8				
1986	28.0				
1987	24.5				
1988	23.4				
1989	21.8				
1990	20.1				
1991	19.7				
1992	19.4	19.6 ¢	100.2 ¢	15.3 ¢	13.6 ¢
1993	18.9	19.1	99.6	14.7	13.2
1994	18.1	18.3	91.3	14.0	12.8
1995	N/A	17.9	89.2	13.5	12.3

* Source: AT&T.

** Source: Industry Analysis Division, *Telecommunications Industry Revenue: TRS Fund Worksheet Data.*

*** Billed revenue per minute for international service differs in Table 10 and Table 49. Data in Table 10 is based on traffic to foreign points for all U.S. carriers serving all U.S. points. Data for Table 49 is based on traffic for domestic U.S. points, only. The domestic U.S. includes Puerto Rico but excludes American Samoa, Guam, the Norther Mariana Islands, and the U.S. Virgin Islands.

CONSUMER EXPENDITURES:

The Bureau of Labor Statistics conducts surveys of consumer expenditures, in part, to develop weights for CPI indexes. Table 11 shows expenditures for telephone service for all consumer units. Average annual expenditures on telephone service increased from $325 per household in 1980 to $708 in 1995.

About 2% of all consumer expenditures are devoted to telephone service. This percentage has remained virtually unchanged over the past 15 years, despite major changes in the telephone industry and in telephone usage.

The information on average telephone expenditures can be used to estimate the average monthly bills for households with telephone service. This average was about $62 per month for 1995. Monthly bills have increased significantly since 1980, due partly to higher local rates, but primarily due to more long distance calling. Residential toll calling grew by about 10% a year between 1985 and 1989 -- a period when toll rates declined dramatically. The average American household now spends more on long distance service than on basic local service, reflecting the growth in long distance calling since the AT&T divestiture in 1984.

TABLE 11

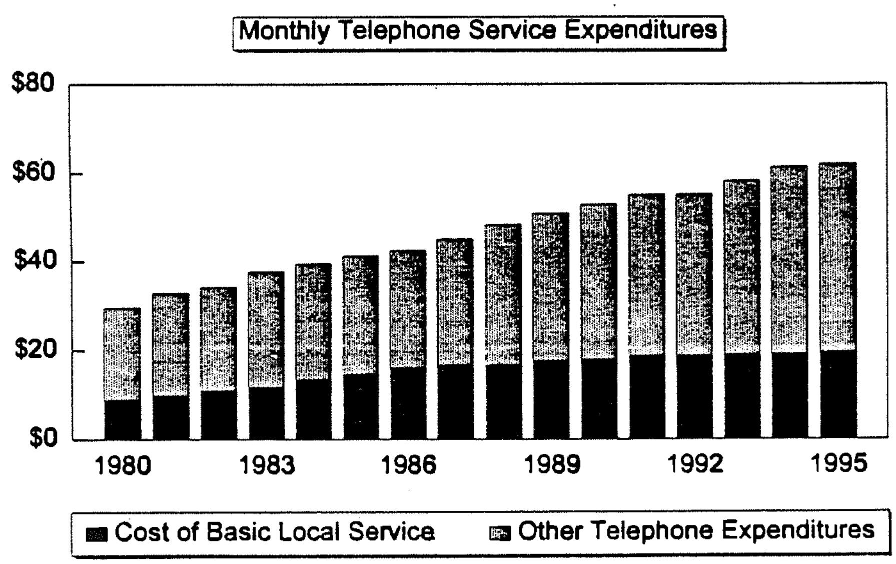
TELEPHONE SERVICE EXPENDITURES

Year	Annual Expenditures (Average for All Households)		Monthly Expenditures (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	16.13	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
1991	618	2.1	18.66	36	55
1992	623	2.1	18.70	37	55
1993	658	2.1	18.94	39	58
1994	690	2.2	19.07	42	61
1995	708	2.2	19.49	42	62

Source: Bureau of Labor Statistics.

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

** Calculated as total monthly bill minus the cost of basic local service. Figures may not add due to rounding. The "Toll and Other" category is primarily toll, but also includes charges for equipment, additional access lines, connection, touch-tone, call waiting, 900 service, directory listings, etc.



CHANGES IN LOCAL TELEPHONE TECHNOLOGY:

1. Central Office Technology:

During the 1980s, telephone companies replaced most of their older electromechanical switches with computerized equipment. 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 telephone conversations are converted to a digital form before being passed through the switch and later reconverted to their original analog form. Some 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 throughout the Bell Operating Companies (BOCs) is shown in Table 12.

The use of digital technology has allowed local telephone companies to equip almost all 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 1980s, telephone company switching offices began to be converted to the newest signaling system, Signaling System 7. For several years the telephone industry has been working on 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. The number of BOC switching offices and the lines served by offices with these features are shown in Table 13. Of course, not all of the lines served by ISDN compatible switching offices are actually receiving ISDN service.

2. Transmission Technology:

The BOCs file data on technology as part of their ARMIS reports. (ARMIS is an acronym for the Automated Reporting Management Information System.) Each telephone company has a network of transmission paths or carrier links tying together their switching offices. As indicated in Table 14, fiber optic cables have rapidly replaced copper to provide these links. From 1990 to 1995, the proportion of fiber has grown from 60% to 90%.

Although fiber technology was first used for interoffice transmission facilities, the technology is now being deployed closer to customers. The number of working channels provides an approximation of the number of transmission paths between customers and the telephone company offices serving those customers. Although the number of fiber channels nearly tripled during the first half of the 1990s, in 1995 copper wire still linked 90% of customers to the first point of switching.

TABLE 12

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	9,872	1,646	16.7	2,410	24.4	5,816	58.9
1991	9,957	1,148	11.5	2,167	21.8	6,642	66.7
1992	10,069	615	6.1	1,924	19.1	7,530	74.8
1993	10,083	291	2.9	1,554	15.4	8,238	81.7
1994	10,021	95	0.9	1,133	11.3	8,793	87.7
1995	10,050	60	0.6	976	9.7	9,014	89.7

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	105,641	3,216	3.0	56,973	53.9	45,452	43.0
1991	107,387	1,876	1.7	53,450	49.8	52,061	48.5
1992	109,994	717	0.7	48,952	44.5	60,325	54.8
1993	113,369	264	0.2	41,912	37.0	71,193	62.8
1994	117,313	115	0.1	33,175	28.3	84,023	71.6
1995	122,229	63	0.1	29,031	23.8	93,135	76.2

SOURCE: 1980–89 REPORTED IN CC DOCKET 89–624.
1990–95 REPORTED IN ARMIS 43–07.
BECAUSE OF THE DIFFERING SOURCES, THE DATA FOR 1989 AND EARLIER YEARS MAY NOT BE ENTIRELY CONSISTENT WITH THE DATA FOR 1990 AND LATER YEARS.

TABLE 13

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	9,872	7,950	80.5	2,428	24.6	600	6.1
1991	9,957	8,601	86.4	3,670	36.9	920	9.2
1992	10,069	9,292	92.3	5,437	54.0	1,219	12.1
1993	10,083	9,697	96.2	6,688	66.3	1,874	18.6
1994	10,021	9,933	99.1	8,334	83.2	2,388	23.8
1995	10,050	9,977	99.3	8,977	89.3	2,868	28.5

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	105,641	102,429	97.0	40,026	37.9	13,970	13.2
1991	107,387	105,413	98.2	57,327	53.4	20,567	19.2
1992	109,994	109,006	99.1	77,102	70.1	28,375	25.8
1993	113,369	112,992	99.7	92,492	81.6	39,875	35.2
1994	117,313	117,266	100.0	109,585	93.4	56,818	48.4
1995	122,229	122,210	100.0	116,568	95.4	80,159	65.6

SOURCE: 1980-89 REPORTED IN CC DOCKET 89-624.
1990-95 REPORTED IN ARMIS 43-07
BECAUSE OF THE DIFFERING SOURCES, THE DATA FOR 1989 AND EARLIER YEARS MAY NOT BE ENTIRELY CONSISTENT WITH THE DATA FOR 1990 AND LATER YEARS.

* SIGNALING SYSTEM 7 SWITCH (SS7-317)
** ISDN BASIC ACCESS LINE CAPACITY REPORTED FOR 1990-1994.

TABLE 14

LOCAL TRANSMISSION TECHNOLOGY (BELL OPERATING COMPANIES)

MAJOR INTEROFFICE TRANSMISSION LINKS

YEAR-END	TOTAL	COPPER		FIBER		RADIO	
1990	2,895,117	1,092,041	37.7 %	1,737,984	60.0 %	65,092	2.2 %
1991	3,283,956	1,048,545	31.9	2,154,043	65.6	81,368	2.5
1992	3,570,147	869,052	24.3	2,610,185	73.1	90,910	2.5
1993	4,020,454	803,035	20.0	3,126,737	77.8	90,682	2.3
1994	4,494,544	569,428	12.7	3,843,414	85.5	81,702	1.8
1995	5,688,380	486,608	8.6	5,132,640	90.2	69,132	1.2

WORKING TELECOMMUNICATIONS CHANNELS

YEAR-END	TOTAL	COPPER		FIBER		OTHER	
1990	122,564,474 *	106,373,173	86.8 %	3,545,583	2.9 %	0	0.0 %
1991	118,654,347	114,046,814	96.1	4,605,184	3.9	2,349	0.0
1992	120,847,403	114,609,436	94.8	6,237,727	5.2	240	0.0
1993	123,696,676	115,221,604	93.1	8,473,646	6.9	1,426	0.0
1994	129,894,385	119,016,945	91.6	10,875,998	8.4	1,442	0.0
1995	136,230,813	122,975,272	90.3	13,255,293	9.7	248	0.0

SOURCE: ARMIS 43-07 REPORT.

* INCLUDES SOME OTHER CHANNELS.

EQUAL ACCESS:

The BOCs serve more than 75% of the nation's telephone lines and are obligated to offer equal access (i.e. "1-plus" dialing) to all long distance carriers. The BOCs have converted almost all of their lines to equal access, although there are a few lines at smaller, older offices where equal access is being provided as the offices are converted to more modern equipment. Independent telephone companies, which serve almost 25% of the nation's lines, have converted about 97% of their lines.

Table 15 shows the number of telephone lines and the percentage of these lines converted to equal access since divestiture. BOCs converted almost half of their lines between December 1984 and December 1985, and an additional 40% in the next three years. Including independents, the United States reached 99% equal access conversion by mid-1996.

Table 16 shows the number of central office wire centers in each state that had been converted to equal access as of February 1, 1997. The table is derived from NECA's Tariff 4 database, which is updated by local exchange carriers. In some cases, there is a lag between an office converting to equal access and that change being reflected in the database. Thus, in some cases, the data continue to show some offices not yet converted to equal access even in states where equal access is reported to be available to all customers. Because the non-equal access offices tend to be smaller offices, the percentage of converted lines is significantly greater than the percentage of converted offices.

TABLE 15

DEVELOPMENT OF EQUAL ACCESS (ACCESS LINES IN THOUSANDS)

	BELL COMPANIES		OTHER COMPANIES		TOTAL	
	LINES	% EQUAL ACCESS	LINES	% EQUAL ACCESS	LINES	% EQUAL ACCESS
1984 JUNE	84,321	0.0	26,278	0.0	110,599	0.0
DECEMBER	85,457	3.8	26,633	1.0	112,090	3.1
1985 JUNE	86,609	26.9	26,992	2.5	113,601	21.1
DECEMBER	87,777	50.9	27,355	3.4	115,132	39.6
1986 JUNE	88,960	61.9	27,724	13.6	116,684	50.4
DECEMBER	90,159	74.3	28,098	28.0	118,257	63.3
1987 JUNE	91,374	77.7	28,477	37.7	119,851	68.2
DECEMBER	92,606	84.7	28,860	47.8	121,467	75.9
1988 JUNE	93,520	87.4	29,145	51.6	122,665	78.9
DECEMBER	94,813	91.3	29,548	56.3	124,361	83.0
1989 JUNE	96,632	93.4	30,115	59.6	126,747	85.4
DECEMBER	98,214	94.1	30,268	60.8	128,482	86.2
1990 JUNE	99,815	95.0	30,962	63.8	130,777	87.6
DECEMBER	100,993	96.8	31,416	70.6	132,409	90.6
1991 JUNE	102,027	97.4	31,870	73.5	133,896	91.7
DECEMBER	103,102	98.4	32,185	77.5	135,287	93.4
1992 JUNE	104,060	98.9	32,843	80.7	136,704	94.5
DECEMBER	105,744	99.3	32,981	84.5	138,725	95.8
1993 JUNE	107,084	99.4	33,531	86.6	140,615	96.3
DECEMBER	108,847	99.6	33,963	89.1	142,809	97.1
1994 JUNE	110,583	99.8	34,646	90.6	145,229	97.6
DECEMBER	113,092	99.9	35,387	92.2	148,479	98.0
1995 JUNE	114,827	99.9	35,518	94.7	150,335	98.6
DECEMBER	116,344	99.9	36,258	95.7	152,602	98.9
1996 JUNE	119,089	100.0 *	35,698	96.8	156,001	99.2

SOURCE: NATIONAL EXCHANGE CARRIER ASSOCIATION.

* 99.98% OF THE BELL COMPANIES HAVE CONVERTED THEIR LINES TO EQUAL ACCESS.

TABLE 16

CENTRAL OFFICES CONVERTED TO EQUAL ACCESS

(as of February 1, 1997)

	Bell Company Central Offices			Other Central Offices			Bell & Other Central Offices	
	Equal Access	Non-Equal Access	% Equal Access	Equal Access	Non-Equal Access	% Equal Access	Total Offices	% Equal Access
Alabama	155	0	100.0 %	209	10	95.4 %	374	97.3 %
Alaska	0	0	N.A.	37	218	14.5	255	14.5
Arizona	157	1	99.4	71	34	67.6	263	86.7
Arkansas	140	8	94.6	227	44	83.8	419	87.6
California	751	0	100.0	386	16	96.0	1153	98.6
Colorado	188	2	98.9	84	34	71.2	308	88.3
Connecticut	5	0	100.0	143	0	100.0	148	100.0
Delaware	34	0	100.0	0	0	N.A.	34	100.0
District of Columbia	35	5	87.5	0	0	N.A.	40	87.5
Florida	218	0	100.0	275	18	93.9	511	96.5
Georgia	258	0	100.0	233	18	92.8	509	96.5
Hawaii	1	0	100.0	84	18	82.4	103	82.5
Idaho	84	0	100.0	102	16	86.4	202	92.1
Illinois	262	54	82.9	646	103	86.2	1065	85.3
Indiana	171	5	97.2	387	30	92.8	593	94.1
Iowa	174	0	100.0	615	46	93.0	835	94.5
Kansas	175	12	93.6	281	135	67.5	603	75.6
Kentucky	183	0	100.0	199	21	90.5	403	94.8
Louisiana	233	0	100.0	84	20	80.8	337	94.1
Maine	144	1	99.3	100	20	83.3	265	92.1
Maryland	214	21	91.1	1	0	100.0	236	91.1
Massachusetts	286	2	99.3	3	0	100.0	291	99.3
Michigan	334	30	91.8	320	54	85.6	738	88.6
Minnesota	226	0	100.0	495	33	93.8	754	95.6
Mississippi	209	0	100.0	39	20	66.1	268	92.5
Missouri	265	11	96.0	313	198	61.3	787	73.4
Montana	81	0	100.0	149	56	72.7	286	80.4
Nebraska	79	0	100.0	342	56	85.9	477	88.3
Nevada	22	29	43.1	52	21	71.2	124	59.7
New Hampshire	126	1	99.2	26	5	83.9	158	96.2
New Jersey	267	1	99.6	24	4	85.7	296	98.3
New Mexico	74	0	100.0	67	56	54.5	197	71.6
New York	604	1	99.8	300	18	94.3	923	97.9
North Carolina	146	0	100.0	350	25	93.3	521	95.2
North Dakota	49	0	100.0	136	116	54.0	301	61.5
Ohio	239	17	93.4	503	112	81.8	871	85.2
Oklahoma	231	10	95.9	273	49	84.8	563	89.5
Oregon	98	0	100.0	208	18	92.0	324	94.4
Pennsylvania	412	0	100.0	393	62	86.4	867	92.8
Puerto Rico	0	0	N.A.	89	0	100.0	89	100.0
Rhode Island	32	0	100.0	0	0	N.A.	32	100.0
South Carolina	120	0	100.0	156	2	98.7	278	99.3
South Dakota	59	0	100.0	192	17	91.9	268	93.7
Tennessee	207	0	100.0	133	48	73.5	388	87.6
Texas	655	29	95.8	873	65	93.1	1622	94.2
Utah	83	0	100.0	50	40	55.6	173	76.9
Vermont	92	2	97.9	34	10	77.3	138	91.3
Virgin Islands	0	0	N.A.	0	6	0.0	6	0.0
Virginia	235	9	96.3	244	11	95.7	499	96.0
Washington	144	0	100.0	259	13	95.2	416	96.9
West Virginia	158	2	98.8	78	11	87.6	249	94.8
Wisconsin	142	1	99.3	510	2	99.6	655	99.5
Wyoming	30	0	100.0	18	40	31.0	88	54.5
Total United States	9,287	254	97.3 %	10,793	1,969	84.6 %	22,303	90.0 %

* The information in this table is based on the NECA FCC Tariff No. 4 database. Some companies do not report information on their remote switches in Tariff No. 4. As a result, central office counts may be lower than reported in other sources.

TELEPHONE LINES:

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 reconcile data from different statistical series, they are not usually large enough to affect comparisons among companies or trends over time. 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, which averages about 3% per year.

Table 17 shows the nation's total number of telephone lines using three alternative measures. One measure is the number of local loops, which is a way of counting lines that is used to determine the amount of Universal Service Fund payments to local exchange carriers. A second measure is the number of presubscribed lines, which are used to determine the amount of payments by the interexchange carriers to support the Universal Service Fund and the Lifeline and Link-Up programs. The third measure, access lines, is published by the United States Telephone Association.

Table 18 shows the number of local exchange carriers and presubscribed access lines in each state, and shows breakdowns for equal access and non-equal access lines.

Table 19 compares the number of residential local loops with the number of households with telephone service. The difference between these series is an approximate measure of the number of additional residential access lines. Table 19 shows that the percentage of additional lines for households with telephone service has increased dramatically, from about 3% in 1988 to about 15% in 1995.

Table 17

Total U.S. Telephone Lines *

Year	Presubscribed Lines	Annual Growth (%)	Local Loops	Annual Growth (%)	Access Lines	Annual Growth (%)
1979					101,478,000	
1980			102,216,367		104,692,000	3.2 %
1981			105,559,222	3.3 %	107,416,000	2.6
1982			107,519,214	1.9	108,593,000	1.1
1983			110,612,689	2.9	111,373,000	2.6
1984			112,550,739	1.8	114,474,000	2.8
1985			115,985,813	3.1	118,275,000	3.3
1986			118,289,121	2.0	122,202,600	3.3
1987	121,466,500		122,789,249	3.8	126,725,000	3.7
1988	124,360,829	2.4 %	127,086,765	3.5	130,000,000	2.6
1989	128,482,479	3.3	131,504,568	3.5	134,009,489	3.1
1990	132,408,608	3.1	136,114,201	3.5	137,075,520	2.3
1991	135,286,582	2.2	139,412,884	2.4	140,196,551	2.3
1992	138,725,040	2.5	143,424,265	2.9	144,056,712	2.8
1993	142,809,280	2.9	148,190,703	3.3	149,084,378	3.5
1994	148,479,328	4.0	153,653,708	3.7	156,769,460	5.2
1995	152,601,177	2.8	159,709,923	3.9	164,624,372	5.0

Source: Presubscribed Lines: National Exchange Carrier Association.
Loops: National Exchange Carrier Association.
Access Lines: United States Telephone Association.

* Year–end data.

TABLE 18

TELEPHONE LINES BY STATE
(AS OF JUNE 30, 1996)

STATE NAME	NUMBER OF TELEPHONE COMPANIES	BELL COMPANY LINES			OTHER COMPANY LINES			TOTAL LINES	% EQUAL ACCESS
		EQUAL ACCESS	NON-EQUAL ACCESS	% EQUAL ACCESS	EQUAL ACCESS	NON-EQUAL ACCESS	% EQUAL ACCESS		
ALABAMA	30	1,788,127	0	100.00	405,951	21,008	95.08	2,215,086	99.05
ALASKA	25	0	0	N.A.	301,636	45,477	86.90	347,113	86.90
ARIZONA	14	2,179,330	665	99.97	131,402	19,613	87.01	2,331,010	99.13
ARKANSAS	28	875,975	0	100.00	372,558	24,871	93.74	1,273,404	98.05
CALIFORNIA	22	15,595,783	0	100.00	3,802,233	19,405	99.49	19,417,421	99.90
COLORADO	27	2,223,432	885	99.96	90,251	10,581	89.51	2,325,149	99.51
CONNECTICUT	2	0	0	N.A.	1,984,597	0	100.00	1,984,597	100.00
DELAWARE	1	460,085	0	100.00	0	0	N.A.	460,085	100.00
DISTRICT OF COLUMBIA	1	769,217	0	100.00	0	0	N.A.	769,217	100.00
FLORIDA	13	5,526,567	0	100.00	3,764,772	43,343	98.86	9,334,682	99.54
GEORGIA	36	3,512,859	0	100.00	650,280	43,774	93.69	4,206,913	98.96
HAWAII	1	0	0	N.A.	571,856	29,509	95.09	601,365	95.09
IDAHO	20	453,050	0	100.00	143,328	4,090	97.23	600,468	99.32
ILLINOIS	56	6,124,147	0	100.00	1,120,873	75,067	93.72	7,320,087	98.97
INDIANA	42	1,944,018	0	100.00	1,121,443	26,623	97.68	3,092,084	99.14
IOWA	153	987,825	0	100.00	478,465	22,174	95.55	1,486,464	98.51
KANSAS	39	1,217,888	0	100.00	181,259	55,668	76.50	1,454,815	96.17
KENTUCKY	19	1,101,298	0	100.00	760,021	10,323	98.66	1,871,642	99.45
LOUISIANA	20	2,081,760	0	100.00	143,088	17,296	89.22	2,242,144	99.23
MAINE	19	629,644	0	100.00	112,870	7,873	93.48	750,387	98.95
MARYLAND	2	3,018,942	0	100.00	5,753	0	100.00	3,024,695	100.00
MASSACHUSETTS	3	4,084,879	0	100.00	3,856	0	100.00	4,088,735	100.00
MICHIGAN	38	4,869,748	0	100.00	791,367	60,443	92.90	5,721,558	98.94
MINNESOTA	90	2,021,172	0	100.00	636,378	24,644	96.27	2,682,194	99.08
MISSISSIPPI	19	1,158,008	0	100.00	46,480	30,949	60.03	1,235,437	97.49
MISSOURI	45	2,289,232	0	100.00	615,026	106,771	85.21	3,011,029	96.45
MONTANA	18	329,490	0	100.00	134,908	11,109	92.39	475,507	97.66
NEBRASKA	42	501,854	0	100.00	391,058	29,308	93.03	922,220	96.82
NEVADA	14	276,820	16,496	94.38	738,871	3,218	99.57	1,035,405	98.10
NEW HAMPSHIRE	12	694,500	0	100.00	42,146	2,974	93.41	739,620	99.60
NEW JERSEY	3	5,465,593	0	100.00	180,880	3,465	98.12	5,649,938	99.94
NEW MEXICO	14	691,408	0	100.00	99,200	12,914	86.48	803,522	98.39
NEW YORK	44	10,251,105	0	100.00	1,164,048	5,906	99.50	11,421,059	99.95
NORTH CAROLINA	26	2,023,216	0	100.00	2,043,713	15,686	99.24	4,082,615	99.62
NORTH DAKOTA	24	205,542	0	100.00	123,110	23,499	83.97	352,151	93.33
OHIO	42	3,707,537	0	100.00	2,349,750	118,757	95.19	6,176,044	98.08
OKLAHOMA	39	1,480,935	9,581	99.36	291,267	18,174	94.13	1,799,957	98.46
OREGON	33	1,187,145	0	100.00	593,872	7,691	98.72	1,788,708	99.57
PENNSYLVANIA	37	5,452,552	0	100.00	1,568,631	34,748	97.83	7,055,931	99.51
RHODE ISLAND	1	596,526	0	100.00	0	0	N.A.	596,526	100.00
SOUTH CAROLINA	27	1,290,758	0	100.00	638,514	1,211	99.81	1,930,483	99.94
SOUTH DAKOTA	32	255,093	0	100.00	96,161	4,721	95.32	355,975	98.67
TENNESSEE	25	2,425,906	0	100.00	547,334	45,369	92.35	3,018,609	98.50
TEXAS	56	8,195,402	1,281	99.98	2,168,493	55,057	97.52	10,420,233	99.46
UTAH	13	918,162	725	99.92	29,277	8,223	78.07	954,387	99.06
VERMONT	9	303,731	0	100.00	51,141	5,274	90.65	360,146	98.54
VIRGINIA	21	2,808,707	0	100.00	903,720	4,826	99.47	3,717,253	99.87
WASHINGTON	22	2,175,470	0	100.00	940,123	43,390	95.59	3,158,983	98.63
WEST VIRGINIA	10	703,220	0	100.00	137,741	2,503	98.22	843,464	99.70
WISCONSIN	89	2,013,711	0	100.00	989,889	9,464	99.05	3,013,064	99.69
WYOMING	10	223,667	0	100.00	29,347	17,229	63.01	270,243	93.62
UNITED STATES	1,428 *	119,089,036	29,633	99.98	34,486,937	1,184,218	96.68	154,789,824	99.22
MICRONESIA	1	0	0	N.A.	19,284	0	100.00	19,284	100.00
PUERTO RICO	2	0	0	N.A.	1,136,623	0	100.00	1,136,623	100.00
VIRGIN ISLANDS	1	0	0	N.A.	55,493	0	100.00	55,493	100.00
GRAND TOTAL	1,432 *	119,089,036	29,633	99.98	35,698,337	1,184,218	96.79	156,001,224	99.22

Source: National Exchange Carrier Association.

* This figure overstates the actual number of operating companies because many operating companies serve more than one state. There are about 1,300 separate operating companies.

TABLE 19

ADDITIONAL RESIDENTIAL LINES FOR HOUSEHOLDS WITH TELEPHONE SERVICE
(End-of-year data in millions)

Year	Loops 1/			Households with Telephone Service 2/	Additional Residential Lines	Percentage of Additional Lines for Households with Telephones
	Residential	Non-Residential	Total Loops			
1988	87.7	38.5	126.2	85.4	2.3	2.7 %
1989	90.0	40.6	130.6	87.4	2.6	3.0
1990	92.2	42.9	135.1	88.4	3.9	4.4
1991	95.9	42.5	138.4	89.4	6.5	7.3
1992	99.3	43.0	142.3	91.0	8.3	9.2
1993	101.9	45.2	147.1	93.0	8.8	9.5
1994	105.2	47.2	152.4	93.7	11.5	12.3
1995	108.1	50.4	158.5	94.2	13.9	14.7

Source: FCC staff estimates.

1/ Total loops are from the Universal Service Fund subscriber line counts provided by the National Exchange Carrier Association. The Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands totals have been removed. Total loops have been divided between residential and non-residential using the ratio of residential to non-residential access lines reported in *Statistics of Communications Common Carriers.* Those totals also exclude Puerto Rico, but cover only the carriers that file ARMIS reports (of which there are none for the Northern Mariana Islands and the U.S. Virgin Islands).

2/ Current Population Survey (U.S. Department of Commerce, Bureau of the Census).

TELEPHONE NUMBERS:

In 1994, many area codes were nearing exhaustion as demand for telephone numbers continued to rise. Adding new area codes became difficult because some older telephone equipment was designed to recognize only area codes with a middle digit of 0 or 1, and the supply of those area codes was dwindling. On January 1, 1995, the restriction on the middle digit was removed, and 640 new area codes were made available. During 1995, 15 new area codes were assigned -- the largest single-year expansion of area codes in decades. Twenty new area codes were added in 1996; at least thirty new codes are projected to be added in 1997. The changes in area codes from 1984 to 1997 are shown in Table 20.

On May 1, 1993, procedures for routing 800 calls were changed and 800 numbers were made "portable." The new system enables customers to change service providers while still retaining the same 800 number. There has been tremendous growth in the 800 market. The growth of 800 telephone numbers is shown in Table 21. In March 1996, a second toll-free calling code -- 888 -- was placed in service. The 888 code assignments are shown in Table 22.

TABLE 20

AREA CODES ASSIGNMENTS
(1984–1997)

LOCATION	DATE	CURRENT CODE	ADDED CODE
CALIFORNIA	1/84	213	818
NEW YORK	9/84	212	718
COLORADO	3/88	303	719
FLORIDA	4/88	305	407
MASSACHUSETTS	7/88	617	508
ILLINOIS	11/89	312	708
NEW JERSEY	11/90	201	908
TEXAS	11/90	214	903
CALIFORNIA	9/91	415	510
MARYLAND	10/91	301	410
CALIFORNIA	11/91	213	310
NEW YORK	1/92	212	917
NEW YORK	1/92	718	917
GEORGIA	5/92	404	706
NEW YORK	7/92	212	718
TEXAS	11/92	512	210
CALIFORNIA	11/92	714	909
ONTARIO	10/93	416	905
NORTH CAROLINA	11/93	919	910
MICHIGAN	12/93	313	810
PENNSYLVANIA	1/94	215	610
ALABAMA	1/95	205	334
WASHINGTON	1/95	206	360
TEXAS	3/95	713	281
ARIZONA	3/95	602	520
COLORADO	4/95	303	970
FLORIDA	5/95	813	941
VIRGINIA	7/95	703	540
GEORGIA	8/95	404	770
CONNECTICUT	8/95	203	860
FLORIDA	9/95	305	954
TENNESSEE	9/95	615	423
BERMUDA	10/95	809	441
OREGON	11/95	503	514
SOUTH CAROLINA	12/95	803	864
FLORIDA	12/95	904	352
MISSOURI	1/96	314	573
ILLINOIS (CHICAGO)	1/96	708	847
PUERTO RICO	3/96	809	787
OHIO	3/96	216	330
MINNESOTA	3/96	612	320
ANTIGUA	4/96	809	268
FLORIDA	5/96	407	561
BARBADOS	7/96	809	246
ST. LUCIA	7/96	809	758

TABLE 20

AREA CODES ASSIGNMENTS (CONT'D)
(1984–1997)

LOCATION	DATE	CURRENT CODE	ADDED CODE
VIRGINIA	7/96	804	757
MONTSERRAT	7/96	809	664
ILLINOIS (CHICAGO)	8/96	708	630
CAYMAN ISLANDS	9/96	809	345
TEXAS	9/96	214	972
OHIO	9/96	513	937
BAHAMAS	10/96	809	242
ST. KITTS & NEVIS	10/96	809	869
ILLINOIS	10/96	312	773
BRITISH COLUMBIA	10/96	604	250
TEXAS	11/96	713	281
CALIFORNIA	1/97	310	562
INDIANA	2/97	317	765
CALIFORNIA	3/97	619	760
ANGUILLA	3/97	809	264
ARKANSAS	4/97	501	870
WASHINGTON ST.	4/97	206	253
WASHINGTON ST.	4/97	206	425
JAMAICA	5/97	809	876
PENNSYLVANIA	5/97	412	724
MICHIGAN	5/97	810	248
TEXAS	5/97	817	254
TEXAS	5/97	817	940
TURKS & CAICOS	5/97	809	649
TRINIDAD/TOBAGO	6/97	809	868
MARYLAND	6/97	301	240
MARYLAND	6/97	410	443
NEW JERSEY	6/97	201	973
NEW JERSEY	6/97	908	732
U.S. VIRGIN ISLANDS	6/97	809	340
CALIFORNIA	6/97	818	626
GUAM	7/97	NA	671
COMMONWEALTH OF THE NORTHERN MARIANA IS.	7/97	NA	670
TEXAS	7/97	210	830
TEXAS	7/97	210	956
WISCONSIN	7/97	414	920
CALIFORNIA	8/97	415	650
DOMINICA	10/97	809	767
BRITISH VIRGIN ISLANDS	10/97	809	284
YUKON & NW TERR.	10/97	403	867
YUKON & NW TERR.	10/97	819	867
GRENADA	10/97	809	473

SOURCE: BELL COMMUNICATIONS RESEARCH.

TABLE 21

TELEPHONE NUMBERS ASSIGNED FOR 800 SERVICE*
(REPORTED AT THE END OF THE MONTH SHOWN)

YEAR	MONTH	WORKING 800 NUMBERS	MISC* 800 NUMBERS	800 NUMBERS IN USE	SPARE 800 NUMBERS
1993	APRIL	2,448,985	642,725	3,091,710	4,538,290
	MAY	2,511,933	708,192	3,220,125	4,409,875
	JUNE	2,589,123	722,006	3,311,129	4,318,871
	JULY	2,675,483	705,416	3,380,899	4,249,101
	AUGUST	2,738,259	701,009	3,439,268	4,190,732
	SEPTEMBER	2,818,262	639,547	3,457,809	4,172,191
	OCTOBER	2,891,994	660,544	3,552,538	4,077,462
	NOVEMBER	3,083,250	728,514	3,811,764	3,818,236
	DECEMBER	3,155,955	731,438	3,887,393	3,742,607
1994	JANUARY	3,257,540	580,216	3,837,756	3,792,244
	FEBRUARY	3,381,646	731,005	4,112,651	3,517,349
	MARCH	3,516,620	743,813	4,260,433	3,369,567
	APRIL	3,659,129	699,212	4,358,341	3,271,659
	MAY	3,793,865	738,767	4,532,632	3,097,368
	JUNE	3,933,037	792,698	4,725,735	2,904,265
	JULY	4,099,174	699,803	4,798,977	2,831,023
	AUGUST	4,312,486	807,881	5,120,367	2,509,633
	SEPTEMBER	4,506,014	841,381	5,347,395	2,282,605
	OCTOBER	4,611,014	871,684	5,482,698	2,147,302
	NOVEMBER	4,817,854	875,416	5,693,270	1,936,730
	DECEMBER	4,948,605	763,235	5,711,840	1,918,160
1995	JANUARY	5,096,646	807,294	5,903,940	1,726,060
	FEBRUARY	5,278,800	811,221	6,090,021	1,539,979
	MARCH	5,528,723	793,771	6,322,494	1,307,506
	APRIL	5,741,780	797,902	6,539,682	1,090,318
	MAY	5,980,848	843,093	6,823,941	806,059
	JUNE	6,340,534	481,633	6,822,167	807,833
	JULY	6,402,785	443,717	6,846,502	863,498
	AUGUST	6,428,120	442,270	6,870,390	839,610
	SEPTEMBER	6,503,018	437,215	6,940,233	769,767
	OCTOBER	6,583,344	396,605	6,979,949	730,051
	NOVEMBER	6,647,880	310,043	6,957,923	752,077
	DECEMBER	6,700,576	286,487	6,987,063	722,937
1996	JANUARY	6,766,607	297,001	7,063,608	646,392
	FEBRUARY	6,861,093	335,557	7,196,650	513,350
	MARCH	6,907,098	293,244	7,200,342	509,658
	APRIL	6,934,085	280,927	7,215,012	494,988
	MAY	6,943,620	333,140	7,276,760	433,240
	JUNE	6,986,821	324,899	7,311,720	398,280
	JULY	7,022,309	339,900	7,362,209	347,791
	AUGUST	7,074,772	311,273	7,386,045	323,955
	SEPTEMBER	7,119,167	310,562	7,429,729	280,271
	OCTOBER	7,185,135	325,088	7,510,223	199,777
	NOVEMBER	7,242,377	337,502	7,579,879	130,121
	DECEMBER	7,272,819	343,905	7,616,724	93,276
1997	JANUARY	7,333,632	323,804	7,657,436	52,564

SOURCE: DATABASE SERVICE MANAGEMENT, INC., A SUBSIDIARY OF BELL COMMUNICATIONS RESEARCH.

* MISCELLANEOUS NUMBERS INCLUDE THOSE CATEGORIZED AS RESERVED, ASSIGNED BUT NOT YET ACTIVATED, RECENTLY DISCONNECTED, OR SUSPENDED.

TABLE 22

TELEPHONE NUMBERS ASSIGNED FOR 888 SERVICE* (REPORTED AT THE END OF THE MONTH SHOWN)

YEAR MONTH	WORKING 888 NUMBERS	MISC* 888 NUMBERS	888 NUMBERS IN USE	SPARE 888 NUMBERS
1996 FEBRUARY	67,399	560,598	627,997	7,342,003
MARCH	267,874	568,574	836,448	7.133,552
APRIL	442,005	565,402	1,007,407	6,962,593
MAY	707,374	542,428	1,249,802	6,720,198
JUNE	922,849	544,079	1,466,928	6,503,072
JULY	1,157,770	549,845	1,707,615	6,262,385
AUGUST	1,437,660	576,399	2,014,059	5,955,941
SEPTEMBER	1,641,519	590,345	2,231,864	5,738,136
OCTOBER	1,886,663	629,365	2,516,028	5,453,972
NOVEMBER	2,074,600	622,375	2,696,975	5,273,025
DECEMBER	2,255,163	601,766	2,856,929	5,113,071
1997 JANUARY	2,457,250	591,533	3,048,783	4,921,217

SOURCE: DATABASE SERVICE MANAGEMENT, INC., A SUBSIDIARY OF BELL COMMUNICATIONS RESEARCH.

* MISCELLANEOUS NUMBERS INCLUDE THOSE CATEGORIZED AS RESERVED, ASSIGNED BUT NOT YET ACTIVATED, RECENTLY DISCONNECTED, OR SUSPENDED.

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

DEMs, which are shown in Table 23, are measured as calls enter and leave telephone switches, therefore, two DEMs are counted for every conversation minute. The volume of local calling 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 11% in 1995. During that same period, interstate calling minutes increased from 8% of the total to 15%.

As shown in Table 24, the average telephone line is used primarily for local calling and is used somewhat less than an hour per day for all calls (local, intrastate toll, and interstate toll). The level of local calling has remained relatively constant for a long period of time despite the introduction of facsimile machines, computer modems and other devices that use telephone lines. Increases in long distance calling have caused the total usage per line to increase from 46 minutes in 1980 to 52 minutes in 1995.

2. Switched 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 and 800-like calls. It excludes calls made on private telecommunications systems, on leased lines, and minutes on the "closed end" of WATS and 800-like calls. On ordinary long distance calls, minutes are counted both where the call originates and where the call terminates.

Table 25 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 and price reductions. Premium minutes have grown rapidly, reflecting both strong underlying traffic growth and the conversion of offices to equal access. Non-premium minutes (principally 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 nears completion.

Telephone industry traffic experts often 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, it is not clear why reported changes in access minutes are not entirely consistent with reported changes in dial equipment minutes.

TABLE 23

DIAL EQUIPMENT MINUTES
(IN BILLIONS)

	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	1,713	253	295	2,261
1988	1,795	269	321	2,384
1989	1,829	286	344	2,459
1990	1,846	298	353	2,497
1991	1,860	302	366	2,527
1992	1,929	311	381	2,622
1993	2,030	317	396	2,743
1994	2,129	328	421	2,878
1995	2,228	344	451	3,023
		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	6	7	3
1990	1	4	3	2
1991	1	1	4	1
1992	4	3	4	4
1993	5	2	4	5
1994	5	3	6	5
1995	5	5	7	5
		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
1991	74	12	14	100
1992	74	12	15	100
1993	74	12	14	100
1994	74	11	15	100
1995	74	11	15	100

SOURCE: NATIONAL EXCHANGE CARRIER ASSOCIATION.

TABLE 24

LINE USAGE PER DAY
DIAL EQUIPMENT MINUTES PER LOCAL LOOP

	LOCAL	INTRASTATE TOLL	INTERSTATE TOLL	TOTAL
1980	39	4	4	46
1981	39	4	4	46
1982	39	4	4	47
1983	39	4	4	48
1984	40	5	5	50
1985	40	5	6	51
1986	39	5	6	51
1987	38	6	7	50
1988	39	6	7	51
1989	38	6	7	51
1990	37	6	7	50
1991	37	6	7	50
1992	37	6	7	50
1993	38	6	7	51
1994	38	6	8	51
1995	38	6	8	52
	INCREASE OVER PRIOR YEAR			
1981	−1 %	4 %	5 %	0 %
1982	1	3	5	2
1983	0	2	7	1
1984	1	17	21	4
1985	−1	9	17	2
1986	−0	5	6	1
1987	−3	3	5	−1
1988	1	2	5	2
1989	−1	3	4	−0
1990	−2	1	−1	−2
1991	−2	−1	1	−1
1992	1	−0	1	1
1993	2	−1	1	2
1994	1	−0	2	1
1995	1	1	3	1

TABLE 28

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
TOTAL 1985	142.4	24.7	167.1
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
TOTAL 1986	168.5	14.6	183.1
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
TOTAL 1987	203.9	11.9	215.7
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
TOTAL 1988	235.4	9.2	244.6
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
TOTAL 1989	269.1	8.0	277.1
1990 FIRST QUARTER	72.9	1.9	74.7
SECOND QUARTER	74.0	1.8	75.8
THIRD QUARTER	76.1	1.8	77.9
FOURTH QUARTER	77.4	1.6	79.1
TOTAL 1990	300.4	7.1	307.4
1991 FIRST QUARTER	77.7	1.5	79.2
SECOND QUARTER	80.4	1.5	81.9
THIRD QUARTER	81.2	1.4	82.6
FOURTH QUARTER	83.0	1.4	84.4
TOTAL 1991	322.2	5.8	328.0
1992 FIRST QUARTER	84.5	1.2	85.6
SECOND QUARTER	85.4	1.1	86.5
THIRD QUARTER	86.8	1.0	87.9
FOURTH QUARTER	88.8	1.0	89.8
TOTAL 1992	345.5	4.2	349.7
1993 FIRST QUARTER	89.8	0.9	90.6
SECOND QUARTER	90.4	0.8	91.2
THIRD QUARTER	92.9	0.7	93.6
FOURTH QUARTER	95.2	0.6	95.9
TOTAL 1993	368.3	3.0	371.2
1994 FIRST QUARTER	98.1	0.6	98.7
SECOND QUARTER	97.4	0.5	97.9
THIRD QUARTER	101.4	0.5	101.9
FOURTH QUARTER	102.4	0.5	102.9
TOTAL 1994	399.3	2.1	401.4
1995 FIRST QUARTER	105.1	0.4	105.6
SECOND QUARTER	106.4	0.4	106.8
THIRD QUARTER	108.6	0.4	109.0
FOURTH QUARTER	110.2	0.4	110.6
TOTAL 1995	430.4	1.6	432.0
1996 FIRST QUARTER	115.3	0.4	115.7
SECOND QUARTER	114.4	0.4	114.8
THIRD QUARTER	117.4	0.3	117.7
FOURTH QUARTER	120.4	0.2	120.6
TOTAL 1996	467.5	1.3	468.8

Source: Industry Analysis Division, *Long Distance Market Share*.

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 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 codes assigned is shown in Table 26.

Table 27 shows several alternative sources of information on the development of long distance carriers.

Equal access is the premium access used by major carriers to provide "1-plus" dialing. 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 28 shows the evolution of larger carriers that purchase equal access.

TABLE 26

NUMBER OF CARRIER IDENTIFICATION CODES (CICs) ASSIGNED BY BELL COMMUNICATIONS RESEARCH

YEAR	QUARTER	NUMBER OF CICs ASSIGNED	
1982	FIRST QUARTER	11	
	SECOND QUARTER	13	
	THIRD QUARTER	13	
	FOURTH QUARTER	11	
1983	FIRST QUARTER	15	
	SECOND QUARTER	25	
	THIRD QUARTER	33	
	FOURTH QUARTER	42	
1984	FIRST QUARTER	54	
	SECOND QUARTER	88 *	
	THIRD QUARTER	121	
	FOURTH QUARTER	155	
1985	FIRST QUARTER	182	
	SECOND QUARTER	212	
	THIRD QUARTER	238	
	FOURTH QUARTER	256	
1986	FIRST QUARTER	278	
	SECOND QUARTER	331	
	THIRD QUARTER	361	
	FOURTH QUARTER	413	
1987	FIRST QUARTER	444	
	SECOND QUARTER	495	
	THIRD QUARTER	530	
	FOURTH QUARTER	573	
1988	FIRST QUARTER	602	
	SECOND QUARTER	621	
	THIRD QUARTER	601	
	FOURTH QUARTER	639	
1989	FIRST QUARTER	685	
	SECOND QUARTER	714	
	THIRD QUARTER	730	
	FOURTH QUARTER	747	
1990	FIRST QUARTER	774	
	SECOND QUARTER	794	
	THIRD QUARTER	817	
	FOURTH QUARTER	791	
1991	FIRST QUARTER	745	
	SECOND QUARTER	786	
	THIRD QUARTER	783	
	FOURTH QUARTER	807	
1992	FIRST QUARTER	786	
	SECOND QUARTER	831	
	THIRD QUARTER	840	
	FOURTH QUARTER	886	
YEAR	QUARTER	FGB	FGD
1993	FIRST QUARTER	694**	709
	SECOND QUARTER	738	746
	THIRD QUARTER	739	760
	FOURTH QUARTER	753	796
1994	FIRST QUARTER	781	815
	SECOND QUARTER	795	845
	THIRD QUARTER	805	899***
	FOURTH QUARTER	819	947
1995	FIRST QUARTER	829	1,016
	SECOND QUARTER	832	1,082
	THIRD QUARTER	843	1,146
	FOURTH QUARTER	852	1,209
1996	FIRST QUARTER	865	1,259
	SECOND QUARTER	876	1,307
	THIRD QUARTER	874	1,321
	FOURTH QUARTER	878	1,318

SOURCE: BELL COMMUNICATIONS RESEARCH.

* CONVERSION FROM 2-DIGIT CODES TO 3-DIGIT CODES.
** CONVERSION FROM 3-DIGIT CODES TO 4-DIGIT CODES.
*** INCLUDES BOTH 3-DIGIT CODES AND 4-DIGIT CODES.

TABLE 27

ALTERNATIVE SOURCES OF LONG DISTANCE CARRIER DATA

YEAR	MONTH	CARRIERS WITH PRESUBSCRIBED LINES	CARRIERS PURCHASING EQUAL ACCESS 1/	FIRMS WITH CARRIER IDENTIFICATION CODES	FIRMS PURCHASING ACCESS
1986	MARCH	*	169	231	*
	JUNE	*	183	276	*
	SEPTEMBER	*	190	302	506
	DECEMBER	*	210	334	533
1987	MARCH	*	211	360	561
	JUNE	*	213	397	*
	SEPTEMBER	*	224	421	*
	DECEMBER	223	239	451	540
1988	MARCH	*	238	471	511
	JUNE	242	248	489	519
	SEPTEMBER	*	256	484	508
	DECEMBER	253	266	493	510
1989	MARCH	*	274	520	519
	JUNE	276	287	544	*
	SEPTEMBER	*	304	560	*
	DECEMBER	302	318	577	514
1990	MARCH	*	289	594	512
	JUNE	314	288	611	508
	SEPTEMBER	*	304	636	511
	DECEMBER	325	304	601	499
1991	MARCH	*	306	571	505
	JUNE	355	327	597	542
	SEPTEMBER	*	337	605	538
	DECEMBER	388	351	631	576
1992	MARCH	*	361	616	595
	JUNE	425	370	659	577
	SEPTEMBER	*	379	654	587
	DECEMBER	414	394	692	599
1993	MARCH	*	*	*	*
	JUNE	412	401	*	*
	SEPTEMBER	*	401	*	*
	DECEMBER	436	420	*	*
1994	MARCH	*	433	*	*
	JUNE	454	444	*	*
	SEPTEMBER	*	458	*	*
	DECEMBER	511	465	*	*
1995	MARCH	*	*	*	*
	JUNE	549	*	*	*
	SEPTEMBER	*	*	*	*
	DECEMBER	583	*	*	*
1996	MARCH	*	*	*	*
	JUNE	582	*	*	*

SOURCE: INDUSTRY ANALYSIS DIVISION, *LONG DISTANCE CARRIERS AND CODE ASSIGNMENTS*, RELEASED MAY 22, 1995.
PRESUBSCRIBED LINES: NATIONAL EXCHANGE CARRIER ASSOCIATION.

* 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 28

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
1986	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
	SEPTEMBER	6	8	15	52	81
	DECEMBER	9	6	11	55	81
1993	MARCH	*	*	*	*	*
	JUNE	9	6	11	66	92
	SEPTEMBER	8	7	15	66	96
	DECEMBER	7	7	16	68	98
1994	MARCH	7	7	18	73	105
	JUNE	9	5	19	85	118
	SEPTEMBER	9	6	22	89	126
	DECEMBER	7	7	26	87	127

SOURCE: INDUSTRY ANALYSIS DIVISION, *LONG DISTANCE CARRIERS AND CODE ASSIGNMENTS*, RELEASED MAY 22, 1995.

*DATA NOT AVAILABLE.

LONG DISTANCE MARKET SHARES:

1. Minutes of Interstate Calling

Measures of switched access minutes first became available in 1984 and are shown in Table 25. Such information is publicly available for the total industry and for AT&T but not for other long distance carriers. Thus, access minutes can be used to compute a market share for AT&T but not for smaller carriers.

Since 1984, AT&T's traffic has grown at a rate slower than the industry average, which may be due to AT&T's declining market share during that period. AT&T's market share is shown in Table 29. AT&T's share of the interstate market, measured in minutes, declined from over 80% in late 1984 to about 52% at the end of December 1996. 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 52%.

2. Presubscribed Lines

A telephone line is said to be presubscribed to the long distance carrier that receives the ordinary long distance calls placed on that 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 alternative dialing procedures.

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 30.

NECA reports that, in June 1996, there were 156 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. Table 31 shows that at the end of June 1996 , about 64% of these lines were presubscribed to AT&T, 16% to MCI, 7% to Sprint, and about 3% to Worldcom. About six hundred smaller carriers, serving almost 17 million lines, account for the remaining 11% of the industry. Table 32 shows the annual rates of growth for presubscribed lines from December 1988 to June 1996.

3. Toll Revenues

Long distance telephone companies with over $100 million in annual revenues report their annual revenues to the FCC. The revenues for reporting carriers and the total industry are shown in Table 33, and include both interstate and intrastate revenues. Table 34 shows market shares based on annual revenues for long distance carriers. Market shares for all competitors in the long distance market (including both long distance companies and local companies) are shown in Table 35.

In 1995, services provided by long distance carriers generated about $72.5 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. In 1984, AT&T's toll revenues of $35 billion accounted for 90% of the revenues received by all long distance carriers. By 1995, with its revenues having increased by 12%, its share of total revenues had fallen to 53%.

Chart 1 compares alternative measures of AT&T's market share using minutes, lines and revenues. In this 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."

TABLE 29

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	63.6	62.1
THIRD QUARTER	64.0	62.5
FOURTH QUARTER	64.3	63.0
1991 FIRST QUARTER	64.3	63.0
SECOND QUARTER	62.8	61.7
THIRD QUARTER	63.0	61.9
FOURTH QUARTER	63.2	62.1
1992 FIRST QUARTER	63.1	62.2
SECOND QUARTER	60.8	60.0
THIRD QUARTER	61.0	60.3
FOURTH QUARTER	60.3	59.7
1993 FIRST QUARTER	61.8	61.3
SECOND QUARTER	60.6	60.3
THIRD QUARTER	60.6	60.2
FOURTH QUARTER	59.7	59.3
1994 FIRST QUARTER	60.1	59.8
SECOND QUARTER	59.3	59.0
THIRD QUARTER	57.8	57.5
FOURTH QUARTER	58.4	58.1
1995 FIRST QUARTER	58.0	57.8
SECOND QUARTER	56.8	56.5
THIRD QUARTER	56.0	55.8
FOURTH QUARTER	56.1	55.9
1996 FIRST QUARTER	54.9	54.8
SECOND QUARTER	53.8	53.7
THIRD QUARTER	53.0	52.8
FOURTH QUARTER	52.2	52.1

Source: Industry Analysis Division, *Long Distance Market Share*.

TABLE 30
PRESUBSCRIBED TELEPHONE LINES BY CARRIER

	JUNE 96	DEC 95	JUNE 95	DEC 94	JUNE 94	DEC 93
TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES	582	583	549	511	454	436
TOTAL NUMBER OF QUALIFYING CARRIERS	43	44	36	35	29	27
TOTAL NUMBER OF NON-QUALIFYING CARRIERS	539	539	513	476	425	409
QUALIFYING COMPANIES 1/						
AT&T COMPANIES:						
AT&T COMMUNICATIONS	99,599,355	101,138,792	102,502,271	103,957,425	102,421,583	101,711,178
AT&T ALASCOM, INC. 2/	222,144	218,135	232,525	226,974	222,142	218,964
MCI TELECOMMUNICATIONS CORP.	24,338,066	23,911,437	23,459,534	22,040,062	22,286,410	21,818,212
SOUTHERNET						
TELECOM*USA						
TELECONNECT						
SPRINT	10,905,940	9,784,388	9,589,768	9,467,999	9,244,159	9,212,993
LA CONEXION FAMILIAR, INC.						
LONG DISTANCE/USA						
WORLDCOM 3/	4,110,753	4,088,818	3,683,433	1,954,198	1,831,304	1,752,616
ADVANCED TELECOM CORP. (ATC)						
AMERICAN NETWORK						
CLAYDESTA DIGITAL						
COM SYSTEMS DBA SUN DIAL						
ITT						
METROMEDIA						
MICROTEL						
MID-AMERICAN						
NATIONAL TELECOMMUNICATIONS						
NTS (NATIONAL TELEPHONE SYSTEMS)						
TELUS/TELTEC SAVING						
TOUCH-1 LONG DISTANCE				320,571	161,143	98,044
WILTEL 4/				960,004	677,430	432,844
EXCEL TELECOMMUNICATIONS, INC.	3,313,287	1,486,953	223,235	75,543		
FRONTIER COMPANIES: 5/	2,097,182	2,348,301				
FRONTIER dba ALLNET COMM. SVC., INC. 6/	(1,317,313)	(1,548,658)	1,650,296	1,334,360	1,078,577	891,577
FRONTIER COMMUNICATIONS INT'L 7/	(441,493)	(436,609)	365,841	283,372	278,542	279,304
FRONTIER COMM-NORTH CENTRAL REGION 8/	(150,661)	(161,242)	154,038	132,946		
FRONTIER OF THE GREAT LAKES 9/	(97,277)	(95,633)	88,043	84,141	80,573	77,899
FRONTIER OF THE WEST 10/	(90,438)	(106,159)	133,300	137,489	144,240	96,539
LCI COMPANIES:						
LCI INTERNATIONAL/LITEL 11/	1,965,532	1,227,925	840,968	638,464	614,937	405,644
LCI CORPORATE TELEMANAGEMENT GROUP		85,868				
LCI/US SIGNAL CORP. 12/		128,305	121,445	114,026		109,071
SNET AMERICA LONG DISTANCE	597,251	304,391	223,844	105,856		
CABLE & WIRELESS COMMUNICATIONS	584,802	543,617	524,014	524,153	537,919	529,398
UNITED TELEPHONE LONG DISTANCE	471,887	517,379	545,189	572,010	612,991	648,131
TELEFONICA LARGA DISTANCIA	458,783	452,017	444,205	441,467	446,390	442,922
U.S. LONG DISTANCE/ZERO PLUS	276,153	212,611	149,308	116,602		
MFS INTELENET, INC.	177,848	108,489				
BUSINESS TELECOM , INC. (BTI)	171,239	146,116	132,196	121,822	100,808	79,396
LONG DISTANCE SAVERS	170,359	158,001	151,473	141,697	128,716	112,905
GTE	169,609					
TOUCH 1 COMMUNICATIONS	149,392	134,779	108,550			
CITIZENS TELECOM	141,636					
COASTAL TELEPHONE COMPANY	133,108	97,917				
GENERAL COMMUNICATIONS, INC.	124,969	119,863	102,813	102,528	102,202	99,911
TELAMERICA, INC.	122,093	115,403	109,463	105,053	100,282	94,114
CINCINNATI BELL LONG DISTANCE INC.	120,710	115,398	102,634	102,163	92,302	93,659
ATX TELECOMMUNICATIONS SERVICES	119,843	118,637	113,466	107,979	110,023	104,971
TWT-HEARTLINE	118,455	117,739			72,803	
INTER CONTINENTAL TELEPHONE	117,780	134,572	120,932	99,033	64,534	
VARTEC TELECOM, INC.	116,898	120,832	136,568	122,991	130,738	117,692
L.D. SERVICES, INC.	116,239	99,557	90,774			
OCI (ONCOR)	116,046	128,209	148,918	161,085	163,972	144,511
INTERNATIONAL TELECHARGE						
ONE CALL COMMUNICATIONS	110,352	93,613	78,328			
WINSTAR GATEWAY NETWORK, INC	109,991	88,652				
COMMONWEALTH LONG DISTANCE (CLD)	109,349	139,414	146,883	147,045	125,682	113,072
CENTURY AREA LONG LINES	104,143					
ACCESS LONG DISTANCE	101,914	90,562	81,438			
AMERICAN TELCO, INC.	89,783	83,402				
MATRIX TELECOM	89,689	91,031				
ACC LONG DISTANCE CORPORATION	80,795	79,652		74,482		
MIDCOM COMMUNICATIONS	79,472	81,386	102,076			
ALLTEL LONG DISTANCE	78,401					
WORLDXCHANGE 13/		140,610	127,839	156,065	79,270	
CHERRY COMMUNICATIONS		104,367	93,746			
LINTEL (LINCOLN)		79,281	81,010	85,496	68,136	90,146
SONIC COMMUNICATIONS 14/				114,041		
COMMUNIQUE TELECOM				188,295	197,874	169,781
TELESPHERE NETWORK 14/						
PUERTO RICO TEL-COM						
NETECH COMM, US WEST						
TOTAL QUALIFYING CARRIERS	152,080,868	149,232,439	146,960,164	146,317,426	142,215,682	139,963,294
NON-QUALIFYING CARRIERS	3,920,356	3,368,738	3,384,888	3,161,902	3,013,060	2,846,986
TOTAL INDUSTRY PRESUBSCRIBED LINES	156,001,224	152,601,177	150,346,052	149,479,328	145,228,742	142,809,280

TABLE 30
PRESUBSCRIBED TELEPHONE LINES BY CARRIER (CONT'D)

	JUNE 93	DEC 92	JUNE 92	DEC 91	JUNE 91	DEC 90
TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES	412	414	425	388	355	325
TOTAL NUMBER OF QUALIFYING CARRIERS	28	28	24	22	24	21
TOTAL NUMBER OF NON-QUALIFYING CARRIERS	384	386	401	366	331	304
QUALIFYING COMPANIES 1/						
AT&T COMPANIES:						
AT&T COMMUNICATIONS	101,770,741	101,203,888	101,384,413	101,498,260	101,013,529	100,061,611
AT&T ALASCOM, INC. 2/	218,225	209,850	203,832	203,105	196,244	182,341
MCI TELECOMMUNICATIONS CORP.	21,170,832	20,167,298	19,189,649	18,329,870	17,603,453	17,434,898
SOUTHERNET						
TELECOM*USA						
TELECONNECT						
SPRINT	8,621,177	8,656,004	8,424,303	8,353,583	8,702,085	8,743,988
LA CONEXION FAMILIAR, INC.		71,327	72,555			
LONG DISTANCE/USA						
WORLDCOM 3/	931,553	482,043	338,820	332,244	134,043	116,664
ADVANCED TELECOM CORP. (ATC)		440,961	331,136	333,152	334,157	355,518
AMERICAN NETWORK						
CLAYDESTA DIGITAL						
COM SYSTEMS DBA SUN DIAL	134,950	128,190	117,571	116,326	119,034	116,963
ITT						
METROMEDIA	538,362	494,884	468,698	478,128	497,187	515,711
MICROTEL						
MID-AMERICAN						
NATIONAL TELECOMMUNICATIONS					91,417	
NTS (NATIONAL TELEPHONE SYSTEMS)						
TELUS/TELTEC SAVING						
TOUCH-1 LONG DISTANCE	105,244	110,929				
WILTEL 4/	339,960	191,078	116,501	87,758		
EXCEL TELECOMMUNICATIONS, INC.						
FRONTIER COMPANIES: 5/						
FRONTIER dba ALLNET COMM. SVC., INC. 5/	846,961	859,499	830,548	813,748	775,847	744,462
FRONTIER COMMUNICATIONS INT'L 7/	260,750	252,498	240,670	190,382	180,321	171,198
FRONTIER COMM-NORTH CENTRAL REGION 8/						
FRONTIER OF THE GREAT LAKES 9/	76,521	71,059				
FRONTIER OF THE WEST 10/						
LCI COMPANIES:						
LCI INTERNATIONAL/LITEL 11/	359,575	338,498	226,350	186,884	163,089	144,926
LCI CORPORATE TELEMANAGEMENT GROUP						
LCI/US SIGNAL CORP. 12/	93,155	77,098				
SNET AMERICA LONG DISTANCE						
CABLE & WIRELESS COMMUNICATIONS	522,112	513,419	490,228	486,935	448,951	422,534
UNITED TELEPHONE LONG DISTANCE	625,831	539,341	626,850	596,114	590,187	548,303
TELEFONICA LARGA DISTANCIA	436,695	432,701	425,334	419,293	393,034	375,694
U.S. LONG DISTANCE/ZERO PLUS						
MFS INTELENET, INC.						
BUSINESS TELECOM , INC. (BTI)						
LONG DISTANCE SAVERS	98,514	87,687	80,839	77,568	73,698	
GTE						
TOUCH 1 COMMUNICATIONS						
CITIZENS TELECOM						
COASTAL TELEPHONE COMPANY						
GENERAL COMMUNICATIONS, INC.	91,812	97,798	94,229	93,233	90,252	88,360
TELAMERICA, INC.	92,719	92,860	91,480	85,801	90,887	101,968
CINCINNATI BELL LONG DISTANCE INC.	93,014	90,841	85,974	79,182	74,387	67,669
ATX TELECOMMUNICATIONS SERVICES	86,186	82,303	70,246			
TWT-HEARTLINE						
INTER CONTINENTAL TELEPHONE						
VARTEC TELECOM, INC.	77,259					
L.D. SERVICES, INC.						
OCI (ONCOR)	108,625	87,593				
INTERNATIONAL TELECHARGE				72,813	82,085	83,725
ONE CALL COMMUNICATIONS						
WINSTAR GATEWAY NETWORK, INC						
COMMONWEALTH LONG DISTANCE (CLD)	103,407	103,684	93,241			
CENTURY AREA LONG LINES						
ACCESS LONG DISTANCE						
AMERICAN TELCO, INC.						
MATRIX TELECOM						
ACC LONG DISTANCE CORPORATION						
MIDCOM COMMUNICATIONS						
ALLTEL LONG DISTANCE						
WORLDXCHANGE 13/						
CHERRY COMMUNICATIONS						
LINTEL (LINCOLN)	91,420	93,427	93,562	94,163	96,415	99,594
SONIC COMMUNICATIONS 14/						
COMMUNIQUE TELECOM	161,398	148,665	133,090	106,892	93,809	
TELESPHERE NETWORK 14/					94,666	111,386
PUERTO RICO TEL-COM					79,146	99,621
NETECH COMM, US WEST	107,063					
TOTAL QUALIFYING CARRIERS	138,162,070	136,423,594	134,230,099	133,013,454	132,017,921	130,589,544
NON-QUALIFYING CARRIERS	2,452,609	2,301,446	2,473,551	2,273,128	1,878,542	1,819,064
TOTAL INDUSTRY PRESUBSCRIBED LINES	140,614,679	138,725,040	136,703,650	135,286,582	133,896,463	132,408,608

TABLE 30
PRESUBSCRIBED TELEPHONE LINES BY CARRIER (CONT'D)

	JUNE 90	DEC 89	JUNE 89	DEC 88	JUNE 88	DEC 87
TOTAL NUMBER OF CARRIERS WITH PRESUBSCRIBED LINES	314	302	276	253	242	223
TOTAL NUMBER OF QUALIFYING CARRIERS	20	20	21	21	20	19
TOTAL NUMBER OF NON-QUALIFYING CARRIERS	294	282	255	232	222	204
QUALIFYING COMPANIES 1/						
AT&T COMPANIES:						
AT&T COMMUNICATIONS	99,612,725	99,396,609	100,006,827	100,205,677	100,632,869	101,652,678
AT&T ALASCOM, INC. 2/	179,175	166,095	165,332	161,572	157,250	152,040
MCI TELECOMMUNICATIONS CORP.	16,864,001	15,055,643	13,671,625	12,149,921	10,941,207	9,990,561
SOUTHERNET				215,384	199,093	183,769
TELECOM*USA	712,263	646,084	533,516			
TELECONNECT				247,042	211,949	156,614
SPRINT	8,148,013	8,167,638	7,674,605	7,197,136	6,382,372	5,636,179
LA CONEXION FAMILIAR, INC.						
LONG DISTANCE/USA					81,692	85,680
WORLDCOM 3/	70,781	66,576				
ADVANCED TELECOM CORP. (ATC)	372,260	396,319	262,542			
AMERICAN NETWORK						95,926
CLAYDESTA DIGITAL				96,914	78,804	71,794
COM SYSTEMS DBA SUN DIAL	118,225	89,081	87,520	82,773		
ITT	360,551	412,197	425,109	420,793	394,707	279,549
METROMEDIA	198,374	207,599	209,036	215,181	211,210	215,485
MICROTEL				70,273	63,567	
MID-AMERICAN			89,367	97,526	100,113	96,364
NATIONAL TELECOMMUNICATIONS						
NTS (NATIONAL TELEPHONE SYSTEMS)	67,129	77,667	65,692			
TELUS/TELTEC SAVING			134,150	125,339	117,191	105,243
TOUCH-1 LONG DISTANCE						
WILTEL 4/						
EXCEL TELECOMMUNICATIONS, INC.						
FRONTIER COMPANIES: 5/						
FRONTIER dba ALLNET COMM. SVC., INC. 6/	709,876	677,531	687,097	763,680	816,080	726,974
FRONTIER COMMUNICATIONS INT'L 7/	150,069	113,329	98,334	83,383	63,574	
FRONTIER COMM-NORTH CENTRAL REGION 8/						
FRONTIER OF THE GREAT LAKES 9/						
FRONTIER OF THE WEST 10/						
LCI COMPANIES:						
LCI INTERNATIONAL/LITEL 11/	137,164	123,748	107,302	92,014		
LCI CORPORATE TELEMANAGEMENT GROUP						
LCI/US SIGNAL CORP. 12/						
SNET AMERICA LONG DISTANCE						
CABLE & WIRELESS COMMUNICATIONS	407,906	394,020	358,290	304,976	256,786	236,000
UNITED TELEPHONE LONG DISTANCE	524,477	513,033	430,550	285,385	167,025	82,602
TELEFONICA LARGA DISTANCIA						
U.S. LONG DISTANCE/ZERO PLUS						
MFS INTELENET, INC.						
BUSINESS TELECOM , INC. (BTI)						
LONG DISTANCE SAVERS						
GTE						
TOUCH 1 COMMUNICATIONS						
CITIZENS TELECOM						
COASTAL TELEPHONE COMPANY						
GENERAL COMMUNICATIONS, INC.	82,366	86,069	85,773	83,468	84,807	89,336
TELAMERICA, INC.	102,530	100,213	99,038	90,570	94,654	94,292
CINCINNATI BELL LONG DISTANCE INC.						
ATX TELECOMMUNICATIONS SERVICES						
TWT-HEARTLINE						
INTER CONTINENTAL TELEPHONE						
VARTEC TELECOM, INC.						
L.D. SERVICES, INC.						
OCI (ONCOR)						
INTERNATIONAL TELECHARGE	67,751	95,252	71,346			
ONE CALL COMMUNICATIONS						
WINSTAR GATEWAY NETWORK, INC						
COMMONWEALTH LONG DISTANCE (CLD)						
CENTURY AREA LONG LINES						
ACCESS LONG DISTANCE						
AMERICAN TELCO, INC.						
MATRIX TELECOM						
ACC LONG DISTANCE CORPORATION						
MIDCOM COMMUNICATIONS						
ALLTEL LONG DISTANCE						
WORLDXCHANGE 13/						
CHERRY COMMUNICATIONS						
LINTEL (LINCOLN)	95,126	96,966	93,353	94,031	92,636	93,352
SONIC COMMUNICATIONS 14/						
COMMUNIQUE TELECOM						
TELESPHERE NETWORK 14/						
PUERTO RICO TEL-COM						
NETECH COMM, US WEST						
TOTAL QUALIFYING CARRIERS	129,000,782	126,883,689	125,356,404	123,063,038	121,349,606	120,244,460
NON-QUALIFYING CARRIERS	1,776,233	1,598,790	1,390,131	1,297,791	1,315,809	1,222,040
TOTAL INDUSTRY PRESUBSCRIBED LINES	130,777,016	128,482,479	126,746,536	124,360,929	122,665,415	121,466,500

Notes for Table 30 - Presubscribed Telephone Lines by Carrier

Source: Industry Analysis Division, *Long Distance Market Share.*

1/ Qualifying companies' data is only shown for years in which the carrier had at least 0.05% of overall presubscribed lines.
2/ Purchased by AT&T in 1995.
3/ LDDS/WorldCom changed its name to WorldCom, Inc. in May 1995.
4/ WorldCom and Wiltel merged on January 5, 1995.
5/ The total number of presubscribed lines reported for Frontier for 1995 and 1996 are only for those subsidiaries which meet the qualifying companies' threshold noted in footnote 1 above.
6/ Purchased by Frontier in 1995
7/ Name changed from RCI, December 1994.
8/ Formerly American Sharecom; purchased by Frontier in 1995.
9/ Formerly Schneider Communications; purchased by Frontier in 1995.
10/ Formerly West Coast Telecommunications; purchased by Frontier in 1995.
11/ Name changed from Litel, December 1994.
12/ Name changed from Teledial America, December 1994.
13/ Name changed from Communications Telesystems International (CTI) in 1995.
14/ Company went bankrupt.

TABLE 31
MARKET SHARE OF PRESUBSCRIBED LINES

		AT&T	MCI	SPRINT	WORLDCOM	OTHER QUALIFYING CARRIERS	NON-QUALIFYING CARRIERS
1987	DEC	83.7 %	8.2 %	4.8 %		2.3 %	1.0 %
1988	JUNE	82.2	8.9	5.2		2.6	1.1
	DEC	80.6	9.8	5.8		2.8	1.0
1989	JUNE	78.9	10.8	6.1	0.0 %	3.2	1.1
	DEC	77.4	11.7	6.4	0.1	3.3	1.2
1990	JUNE	76.2	12.9	6.2	0.1	3.3	1.4
	DEC	75.6	13.2	6.6	0.1	3.2	1.4
1991	JUNE	75.4	13.1	6.5	0.1	3.4	1.4
	DEC	75.0	13.5	6.2	0.2	3.3	1.7
1992	JUNE	74.2	14.0	6.2	0.2	3.6	1.8
	DEC	73.0	14.5	6.4	0.3	4.1	1.7
1993	JUNE	72.4	15.1	6.1	0.7	4.0	1.7
	DEC	71.2	15.3	6.5	1.2	3.8	2.0
1994	JUNE	70.5	15.3	6.4	1.3	4.4	2.1
	DEC	70.0	14.8	6.4	1.3	5.3	2.1
1995	JUNE	68.2	15.6	6.4	2.4	5.1	2.3
	DEC	66.4	15.7	6.4	2.7	6.6	2.2
1996	JUNE	64.0	15.6	7.0	2.6	8.3	2.5

Source: Industry Analysis Division, *Long Distance Market Share*.

TABLE 32
ANNUAL RATES OF GROWTH OF PRESUBSCRIBED LINES

		AT&T	MCI	SPRINT	WORLDCOM	OTHER QUALIFYING CARRIERS	NON-QUALIFYING CARRIERS	TOTAL INDUSTRY LINES
1987	DEC							
1988	JUNE							
	DEC	-1.4 %	21.6 %	23.3 %		27.0 %	6.2 %	2.4 %
1989	JUNE	-0.8	25.0	20.2		25.4	5.6	3.3
	DEC	-0.8	23.9	13.5		19.6	23.2	3.3
1990	JUNE	-0.4	23.4	6.2		9.3	27.8	3.2
	DEC	0.7	15.8	7.1	75.5 %	0.8	13.8	3.1
1991	JUNE	1.4	4.4	6.8	89.4	6.0	5.8	2.4
	DEC	1.4	5.1	-4.5	184.3	6.3	25.0	2.2
1992	JUNE	0.4	9.0	-3.2	152.8	7.2	31.7	2.1
	DEC	-0.3	10.0	6.0	45.1	27.0	1.2	2.5
1993	JUNE	0.4	10.3	2.3	174.9	15.8	-0.8	2.9
	DEC	0.5	8.2	4.0	263.6	-4.3	23.7	2.9
1994	JUNE	0.6	5.3	7.2	96.6	13.5	22.9	3.3
	DEC	2.2	1.0	2.8	11.5	44.4	11.1	4.0
1995	JUNE	0.1	5.3	3.7	101.1	20.1	12.3	3.5
	DEC	-2.5	8.5	3.3	109.2	1.7	6.5	2.8
1996	JUNE	-2.6	3.7	13.7	11.6	67.0	15.8	3.8

Source: Industry Analysis Division, *Long Distance Market Share*.

TABLE 33
TOTAL TOLL SERVICE REVENUES
(DOLLAR AMOUNTS SHOWN IN MILLIONS)

COMPANY	1995	1994	1993	1992	1991	1990
AT&T COMPANIES: 1/						
AT&T COMMUNICATIONS, INC.	$38,069	$37,166	$35,731	$35,495	$34,384	$33,880
ALASCOM, INC.	325	329	320	333	338	259
MCI TELECOMMUNICATIONS CORP. 2/	12,924	11,715	10,947	9,719	8,266	7,392
TELECOM*USA						
SPRINT COMMUNICATIONS CO. 3/	7,277	6,805	6,139	5,658	5,378	5,041
GTE SPRINT						
US TELECOM						
WORLDCOM, INC. 4/	3,640	2,221	1,145	801	263	154
ADVANCED TELECOMMUNICATIONS CORP.					356	342
METROMEDIA COMMUNICATIONS CORP. 5/			297	369	369	381
ITT COMMUNICATION SERVICES, INC.						
COMSYSTEMS NETWORK SERVICES			116	135	131	130
WILTEL, INC.		917	664	494	405	376
FRONTIER COMPANIES: 6/						
ALLNET COMM. SVCS. dba FRONTIER COMM. SVCS. 7/	827	568	436	376	347	326
LEXITEL						
FRONTIER COMMUNICATIONS INT'L, INC. 8/	309	306	213	168	155	142
FRONTIER COMM. OF THE NORTH CENTRAL REGION	133	123				
FRONTIER COMMUNICATIONS OF THE WEST, INC.	127	144				
CABLE & WIRELESS COMMUNICATIONS, INC.	700	654	557	495	406	359
LCI INTERNATIONAL TELECOM CORP.	671	453	317	243	208	215
EXCEL TELECOMMUNICATIONS, INC. 9/ 10/	363	156				
TELCO COMMUNICATIONS GROUP, INC.	215					
MIDCOM COMMUNICATIONS, INC.	204	109				
TEL-SAVE, INC. 9/	180					
U.S. LONG DISTANCE, INC.	155	138	100			
TELEGROUP, INC. 9/	129					
VARTEC TELECOM, INC.	125	107				
GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/	120					
GENERAL COMMUNICATION, INC. 11/	120	106	92			
MFS INTELENET, INC.	118					
BUSINESS TELECOM, INC.	115					
COMMUNICATION TELESYSTEMS INT'L. 9/	115					
ONCOR COMMUNICATIONS, INC. 9/	111	172	140	159	181	230
THE FURST GROUP, INC. 9/	109					
AMERICAN NETWORK EXCHANGE, INC.	101	109				
TELESPHERE NETWORK, INC. 12/					308	293
(NATIONAL TELEPHONE SERVICES, INC.)						
OTHERS 13/	5,168	5,055	4,319	3,923	2,948	2,582
TOTAL LONG DISTANCE CARRIERS	72,450	67,351	61,533	58,368	54,443	52,102
BELL OPERATING COMPANIES	8,189	9,527	9,849	9,718	10,066	10,578
OTHER LOCAL TELEPHONE COMPANIES 13/	3,143	3,848	3,908	3,897	4,049	4,112
TOTAL LOCAL EXCHANGE COMPANIES	11,332	13,375	13,757	13,615	14,115	14,690
TOTAL TOLL SERVICE REVENUES	$83,782	$80,726	$75,290	$71,983	$68,558	$66,792

TABLE 33
TOTAL TOLL SERVICE REVENUES (CONT'D)
(DOLLAR AMOUNTS SHOWN IN MILLIONS)

COMPANY	1989	1988	1987	1986	1985	1984
AT&T COMPANIES: 1/						
AT&T COMMUNICATIONS, INC.	$34,549	$35,407	$35,219	$36,514	$36,770	$34,935
ALASCOM, INC.	278	272	262	267	271	255
MCI TELECOMMUNICATIONS CORP. 2/	6,171	4,886	3,938	3,372	2,331	1,761
TELECOM*USA	713	524	396	291	201	105
SPRINT COMMUNICATIONS CO. 3/	4,320	3,405	2,592	1,141		
GTE SPRINT				779	1,122	1,052
US TELECOM				212	387	
WORLDCOM, INC. 4/	110					
ADVANCED TELECOMMUNICATIONS CORP.	326	178	162	124	86	72
METROMEDIA COMMUNICATIONS CORP. 5/	127					
ITT COMMUNICATION SERVICES, INC.	404	379	287	282	241	161
COMSYSTEMS NETWORK SERVICES						
WILTEL, INC.	300					
FRONTIER COMPANIES: 6/						
ALLNET COMM. SVCS. dba FRONTIER COMM. SVCS. 7/	334	394	395	450	309	
LEXITEL					127	
FRONTIER COMMUNICATIONS INT'L, INC. 8/	104					
FRONTIER COMM. OF THE NORTH CENTRAL REGION						
FRONTIER COMMUNICATIONS OF THE WEST, INC.						
CABLE & WIRELESS COMMUNICATIONS, INC.	275	218	180	171	146	
LCI INTERNATIONAL TELECOM CORP.	197					
EXCEL TELECOMMUNICATIONS, INC. 9/ 10/						
TELCO COMMUNICATIONS GROUP, INC.						
MIDCOM COMMUNICATIONS, INC.						
TEL-SAVE, INC. 9/						
U.S. LONG DISTANCE, INC.						
TELEGROUP, INC. 9/						
VARTEC TELECOM, INC.						
GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/						
GENERAL COMMUNICATION, INC. 11/						
MFS INTELENET, INC.						
BUSINESS TELECOM, INC.						
COMMUNICATION TELESYSTEMS INT'L. 9/						
ONCOR COMMUNICATIONS, INC. 9/	275					
THE FURST GROUP, INC. 9/						
AMERICAN NETWORK EXCHANGE, INC.						
TELESPHERE NETWORK, INC. 12/	192					
(NATIONAL TELEPHONE SERVICES, INC.)	150					
OTHERS 13/	2,359	1,823	1,352	992	639	414
TOTAL LONG DISTANCE CARRIERS	51,184	47,487	44,783	44,595	42,630	38,755
BELL OPERATING COMPANIES	10,549	10,668	10,268	9,599	9,026	9,037
OTHER LOCAL TELEPHONE COMPANIES 13/	4,291	4,445	3,468	3,274	3,159	3,364
TOTAL LOCAL EXCHANGE COMPANIES	14,840	15,113	13,736	12,873	12,185	12,401
TOTAL TOLL SERVICE REVENUES	$66,024	$62,600	$58,519	$57,468	$54,815	$51,156

Notes for Table 33 - Total Toll Service Revenues

Sources: Industry Analysis Division, *Long Distance Market Share.*
Local exchange carrier information derived from USTA annual reports.
Long distance company information taken from reports filed pursuant to FCC. Report and Order in CC Docket 83-1291.

1/ AT&T acquired Alascom August 7, 1995.
2/ MCI Telecommunications and Telecom*USA merged during 1989.
3/ In July 1986, GTE Sprint and US Telecom merged into 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. Effective February 26, 1992, the company's name became Sprint Communications Co.
4/ LDDS Communications, Inc. (which changed its name to WorldCom, Inc. in May 1995) and Advanced Telecommunications Corp. merged during 1992. In 1993, LDDS Communications, Inc. merged with Metromedia Communications Corp. and Comsystems Network Services. For 1993, only the revenues that were received after the merger are included in LDDS Communications' revenues. Those revenues up to the merger are listed individually for 1993. LDDS and Wiltel merged January 5, 1995.
5/ Metromedia Communications Corp. and ITT Communications Corp. merged during 1988. Information for 1989 was reported separately.
6/ Frontier Corporation, the parent company of Frontier Communications Int'l, Inc., acquired ALC Communications, the parent company of Allnet on August 16, 1995. On May 18, 1995, Frontier Corporation acquired WCT Communications, the parent company of West Coast Telecommunications, which is now known as Frontier Communications of the West, Inc. In addition, on March 17, 1995, Frontier Corporation acquired American Sharecom, which is now known as Frontier Communications of the North Central Region.
7/ Allnet and Lexitel merged at the end of 1985.
8/ Name changed from RCI Long Distance, Inc. in 1994.
9/ Company indicated it is strictly a reseller.
10/ Excludes $143 million from marketing services in 1995. Marketing revenues were included in the 1994 total.
11/ Does not include $10 million from non-communications operations in 1993, $11 million in 1994, and $9 million in 1995.
12/ Telesphere Network, Inc. and National Telephone Services, Inc. merged during 1989. In 1991, Telesphere Network, Inc. went into bankruptcy.
13/ Estimated by FCC staff.

TABLE 34
TOTAL TOLL SERVICE REVENUES - MARKET SHARE
(BASED ON REVENUES OF LONG DISTANCE CARRIERS ONLY)

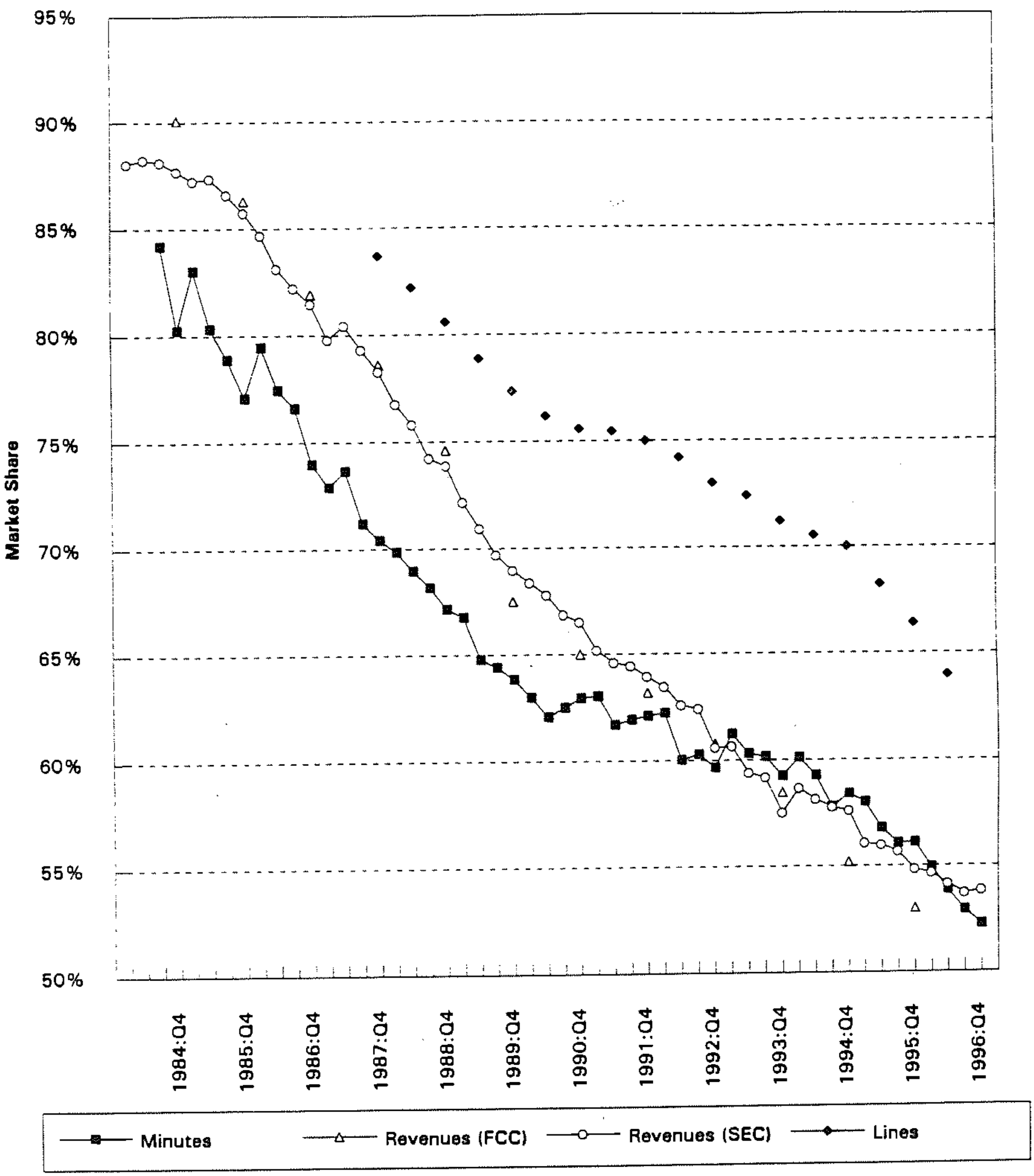
YEAR	AT&T	MCI	SPRINT	WORLDCOM	ALL OTHER LONG DISTANCE CARRIERS
1984	90.1 %	4.5 %	2.7 %		2.6 %
1985	86.3	5.5	2.6		5.6
1986	81.9	7.6	4.3		6.3
1987	78.6	8.8	5.8		6.8
1988	74.6	10.3	7.2		8.0
1989	67.5	12.1	8.4	0.2 %	11.8
1990	65.0	14.2	9.7	0.3	10.8
1991	63.2	15.2	9.9	0.5	11.3
1992	60.8	16.7	9.7	1.4	11.5
1993	58.1	17.8	10.0	1.9	12.3
1994	55.2	17.4	10.1	3.3	14.0
1995	53.0	17.8	10.0	5.0	14.1

TABLE 35
TOTAL TOLL SERVICE REVENUES - MARKET SHARE
(BASED ON ALL LONG DISTANCE TOLL CARRIERS)

YEAR	AT&T	MCI	SPRINT	WORLDCOM	ALL OTHER LONG DISTANCE CARRIERS	BELL OPERATING COMPANIES	OTHER LOCAL TELEPHONE COMPANIES
1984	68.3 %	3.4 %	2.1 %		2.0 %	17.7 %	6.6 %
1985	67.1	4.3	2.0		4.4	16.5	5.8
1986	63.5	5.9	3.3		4.9	16.7	5.7
1987	60.2	6.7	4.4		5.2	17.5	5.9
1988	56.6	7.8	5.4		6.1	17.0	7.1
1989	52.3	9.3	6.5	0.2 %	9.1	16.0	6.5
1990	50.7	11.1	7.5	0.2	8.4	15.8	6.2
1991	50.2	12.1	7.8	0.4	9.0	14.7	5.9
1992	49.3	13.5	7.9	1.1	9.3	13.5	5.4
1993	47.5	14.5	8.2	1.5	10.1	13.1	5.2
1994	46.0	14.5	8.4	2.8	11.7	11.8	4.8
1995	45.8	15.4	8.7	4.3	12.2	9.8	3.8

Source: Industry Analysis Division, *Long Distance Market Share*.

Chart 1 - Indicators of AT&T Market Share



TOTAL TELECOMMUNICATIONS INDUSTRY REVENUES:

Since 1993, all carriers with interstate revenues have been required to file an annual Telecommunications Relay Service (TRS) Fund Worksheet. Because revenues derived from providing access to the interstate network are considered to be interstate, virtually all carriers are required to file information. Over 3,000 carriers filed these worksheets in 1996 and reported $199 billion of revenue for 1995. Table 36 shows these revenues for the ten revenue categories provided in the TRS worksheets. The revenues are shown by type of carrier in Table 37. Carriers billed $76 billion for local services, $34 billion for access services, and $90 billion for toll services in 1995. A large share of access revenues represents payments from toll carriers to traditional local exchange carriers for access.

The publication, *Carrier Locator: Interstate Service Providers*, lists each of the 3,058 carriers that filed a worksheet, along with the categories of revenues reported. It also contains an address and contact telephone number for each carrier.

Table 38 provides estimates of intrastate and interstate telephone revenue by states for 1995. Nationwide telephone revenue from TRS is allocated to each state using data from the 1995/1996 *Statistics of Communication Common Carriers* and from the 1995 *Statistical Abstract of the United States*.

TABLE 36

TELECOMMUNICATIONS REVENUE REPORTED BY TYPE OF SERVICE

(Dollar amounts shown in millions)

	1992	1993	1994	1995	Percent Change From 1992
Local Exchange Service	$39,235	$40,176	$42,245	$45,188	15.2 %
Local Private Line Service	1,049	1,088	1,138	1,226	16.9
Cellular, PCS, Paging & Other Mobile	7,285	10,237	14,293	18,698	156.7
Alternative Access and Other	7,687	8,002	8,302	10,428	35.7
Total Local Revenues	55,256	59,503	65,977	75,540	36.7
Interstate Access	21,233	22,476	23,938	24,828	16.9
Intrastate Access	8,120	8,356	8,820	9,067	11.7
Total Access Revenues	29,353	30,832	32,759	33,895	15.5
Operator Service, Pay Telephone & Card	9,465	10,772	10,539	11,164	17.9
Non-operator Switched Toll Service	54,300	58,294	60,819	64,385	18.6
Long Distance Private Line Service	7,783	8,067	9,043	9,718	24.9
All Other Long Distance	4,196	5,392	4,078	4,303	2.6
Total Toll Revenues	75,744	82,525	84,478	89,570	18.3
Total Carrier Revenue	160,353	172,860	183,214	199,005	24.1

Source: Industry Analysis Division, *Telecommunications Industry Revenue: TRS Fund Worksheet Data.*

TABLE 37

TELECOMMUNICATIONS REVENUE REPORTED BY TYPE OF CARRIER

(Dollar amounts shown in millions)

	1992	1993	1994	1995
Regional Bell Operating Companies (RBOCs)	$66,887	$70,428	$70,856	$75,038
Independent Local Exchange Carriers	24,697	25,362	26,662	27,782
Local Exchange Carriers (LECs)	91,584	95,789	97,519	102,820
Competitive Access Providers (CAPs)	69	282	274	637
Cellular and PCS Carriers	6,718	9,388	13,258	17,209
Paging and Other Mobile Service Carriers	670	1,085	1,122	1,507
Wireless Carriers	7,388	10,472	14,379	18,716
Access Carriers	99,041	106,544	112,172	122,173
Big Four: AT&T, LDDS, MCI, and Sprint	55,104	60,694	63,374	67,539
Interexchange Carriers Other Than the Big Four	2,237	2,595	3,053	3,402
Resellers Including Prepaid Card	1,293	2,044	2,955	4,236
Operator Service Providers (OSPs)	558	695	551	511
Satellite and Other Common Carriers	2,369	775	1,109	1,141
Toll Carriers	61,561	66,803	71,042	76,832
All Carriers	160,602	173,347	183,214	199,005

Source: Industry Analysis Division, *Telecommunications Industry Revenue: TRS Fund Worksheet Data.*

TABLE 38

TOTAL INDUSTRY REVENUE BY STATE

STATE	INTERSTATE (millions)	INTRASTATE (millions)	TOTAL (millions)	PERCENT OF TOTAL
ALABAMA	$1,161	$1,606	$2,767	1.39 %
ARIZONA	1,566	1,343	2,909	1.46
ARKANSAS	694	854	1,548	0.78
CALIFORNIA	8,040	14,810	22,850	11.48
COLORADO	1,621	1,594	3,214	1.62
CONNECTICUT	1,414	1,429	2,843	1.43
DELAWARE	301	200	501	0.25
DISTRICT OF COLUMBIA	513	409	922	0.46
FLORIDA	5,214	6,635	11,849	5.95
GEORGIA	2,709	3,087	5,796	2.91
HAWAII	373	432	805	0.40
IDAHO	437	363	800	0.40
ILLINOIS	3,507	4,668	8,175	4.11
INDIANA	1,550	2,353	3,903	1.98
IOWA	827	1,089	1,917	0.96
KANSAS	821	1,036	1,857	0.93
KENTUCKY	1,188	1,540	2,729	1.37
LOUISIANA	1,129	1,680	2,809	1.41
MAINE	424	461	886	0.45
MARYLAND	1,779	2,091	3,869	1.94
MASSACHUSETTS	2,457	2,670	5,127	2.58
MICHIGAN	2,265	4,320	6,586	3.31
MINNESOTA	1,373	1,769	3,142	1.58
MISSISSIPPI	727	918	1,645	0.83
MISSOURI	1,684	2,110	3,794	1.91
MONTANA	307	338	646	0.32
NEBRASKA	553	785	1,338	0.67
NEVADA	2,075	1,151	3,226	1.62
NEW HAMPSHIRE	580	425	1,005	0.51
NEW JERSEY	3,618	3,541	7,159	3.60
NEW MEXICO	595	557	1,152	0.58
NEW YORK	6,860	8,732	15,592	7.84
NORTH CAROLINA	2,332	3,373	5,705	2.87
NORTH DAKOTA	236	267	503	0.25
OHIO	3,081	5,306	8,387	4.21
OKLAHOMA	938	1,101	2,039	1.02
OREGON	1,098	1,181	2,280	1.15
PENNSYLVANIA	3,606	4,583	8,189	4.12
RHODE ISLAND	391	312	703	0.35
SOUTH CAROLINA	1,178	1,558	2,736	1.37
SOUTH DAKOTA	251	241	492	0.25
TENNESSEE	1,639	1,942	3,581	1.80
TEXAS	4,964	8,240	13,204	6.63
UTAH	597	540	1,137	0.57
VERMONT	277	200	476	0.24
VIRGINIA	2,403	2,770	5,173	2.60
WASHINGTON	1,885	2,274	4,159	2.09
WEST VIRGINIA	536	645	1,180	0.59
WISCONSIN	1,340	2,014	3,354	1.69
WYOMING	205	165	370	0.19
ALASKA and OTHER TERRITORIES	NA	NA	1,977	0.99
TOTAL	$85,319	$111,709	$199,005	100.00

SOURCE: TRS FUND WORKSHEETS AND STAFF ESTIMATES.

ACCESS CHARGES:

In the 1980s the FCC, in cooperation with a Federal-State Joint Board composed of both federal and state regulators, introduced sweeping changes to the way that interstate telephone services were priced.

As recently as the early 1980s, almost all interstate long distance service continued to be provided by AT&T. AT&T, in turn, charged prices above cost for long distance calls and shared the revenues with local telephone companies through a complicated process of allocating costs and distributing revenues. From AT&T's perspective, this revenue sharing was largely internal because it owned the BOCs, which provided about three-quarters of the nation's local telephone service. The transfer of revenues from long distance service was an important source of revenues to local telephone companies and reduced pressures to raise local monthly rates.

By the early 1980s, more than half of the price of a long distance call was passed back to local telephone companies. Doing so was inefficient -- suppressing the demand for long distance calls and inducing large corporations to arrange private systems that bypassed the public switched network. Moreover, while such revenue sharing arrangements were perhaps sustainable in an industry where one firm monopolized both long distance and local service, they were not compatible with a competitive long distance industry.

The historic method of sharing revenues was replaced by a new system of access charges introduced in mid-1984. Access charges provided a uniform method for local telephone companies to charge for the origination and termination of interstate traffic on their local networks. Access charges had several major elements. Monthly subscriber line charges (SLCs) were introduced to recover a portion of the costs of local telephone lines that had historically been recovered through the prices charged for interstate long distance calls. Currently, the SLC is $6.00 monthly for most business lines and $3.50 for most residential lines. Local telephone companies were required to reduce their charges to long distance carriers -- dollar for dollar -- as SLCs were introduced. In addition to SLCs, other access charges -- generally charged on a per-minute basis -- were instituted to recover other local costs.

The rebalancing of prices between local service and interstate long distance calls during the 1980s had fundamental impacts on the telephone industry as the price of long distance service fell and the volume of long distance calling surged. Average monthly SLCs are shown in Table 39, and average per-minute rates charged to long distance carriers are shown in Table 40. The per-minute access rates charged by local telephone companies are generally higher for smaller companies. The range of access rates for mid-1996 are shown in Table 41.

TABLE 39

INTERSTATE SUBSCRIBER LINE CHARGES BY LOCAL TELEPHONE COMPANIES
(Dollars per Month per Line, Charged to End Users) *

Rates in Effect From	Rates in Effect To	Residential and Single-Line Business **	Multiline Business #	Embedded Centrex Rate Cap ##
05/26/84	05/31/85	$0.00	$4.99	$2.00
06/01/85	09/30/85	1.00	4.99	2.00
10/01/85	05/31/86	1.00	4.97	2.00
06/01/86	12/31/86	2.00	4.97	3.00
01/01/87	06/30/87	2.00	5.12	3.00
07/01/87	12/31/87	2.60	5.12	4.00
01/01/88	11/30/88	2.60	5.01	4.00
12/01/88	03/31/89	3.20	5.01	5.00
04/01/89	12/31/89	3.50	4.94	6.00
01/01/90	06/30/90	3.48	4.84	6.00
07/01/90	12/31/90	3.48	4.83	6.00
01/01/91	06/30/91	3.48	4.77	6.00
07/01/91	11/27/91	3.49	4.74	6.00
11/28/91	06/30/92	3.49	4.76	6.00
07/01/92	06/30/93	3.49	4.68	6.00
07/01/93	06/30/94	3.50	5.37	6.00
07/01/94	06/30/95	3.50	5.45	6.00
07/01/95	06/30/96	3.50	5.50	6.00
07/01/96	06/30/97	3.50	5.53	6.00

SOURCE: FEDERAL-STATE JOINT BOARD MONITORING REPORT, MAY 1996.

* These rates are the average of price cap and NECA pool companies. Revenues of these companies comprise approximately 95% of the industry total. The industry rates in this table are the weighted averages of the carriers. The weights are the common line minutes. Rates for the current period are those effective July 1, 1996.

** The rate charged to residential and single-line business customers is capped at a level of $3.50. Carriers are not permitted to charge the full amount unless justified by the underlying costs.

\# The rate charged to multiline business customers is capped at a level of $6.00. Carriers are not permitted to charge the full amount unless justified by the underlying costs. As a result, some companies charge less than the full $6.00.

\## This is the maximum rate applied to centrex lines that were in place or on order as of July 27, 1983. Prior to April 1, 1989, these embedded centrex lines had a lower rate cap than new centrex lines. Customers with new centrex lines paid the multiline business subscriber line charge. Since April 1, 1989, however, the caps on centrex and multiline business charges have been at the same level.

TABLE 40

INTERSTATE CHARGES BY LOCAL TELEPHONE COMPANIES TO LONG DISTANCE CARRIERS
(National Average for Premium Service in Cents per Minute) *

Rates in Effect		Interstate Charges for Switched Access Service				
From	To	Carrier Common Line per Originating Minute*	Carrier Common Line per Terminating Minute*	Traffic Sensitive per Switched Minute	Non-Traffic Sensitive per Switched Minute	Total Charge per Conversation Minute
05/26/84	01/14/85	5.24 ¢	5.24 ¢	3.10 ¢	**	17.26 ¢
01/15/85	05/31/85	5.43	5.43	3.10	**	17.66
06/01/85	09/30/85	4.71	4.71	3.10	**	16.17
10/01/85	05/31/86	4.33	4.33	3.10	**	15.38
06/01/86	12/31/86	3.04	4.33	3.10	**	14.00
01/01/87	06/30/87	1.55	4.33	3.10	**	12.41
07/01/87	12/31/87	0.69	4.33	3.10	**	11.49
01/01/88	11/30/88	0.00	4.14	3.10	**	10.56
12/01/88	02/14/89	0.00	3.39	3.00	**	9.60
02/15/89	03/31/89	0.00	3.25	3.00	**	9.46
04/01/89	12/31/89	1.00	1.83	3.00	**	9.11
01/01/90	06/30/90	1.00	1.53	2.50	**	7.78
07/01/90	12/31/90	1.00	1.23	2.50	**	7.48
01/01/91	06/30/91	1.00	1.14	2.40	**	7.18
07/01/91	06/30/92	0.88	1.06	2.40	**	6.97
07/01/92	06/30/93	0.79	0.95	2.40	**	6.76
07/01/93	06/30/94	0.88	1.16	2.20	**	6.66
07/01/94	06/30/95	0.84	1.08	2.10	0.28 ¢	6.89
07/01/95	06/30/96	0.74	0.89	1.96	0.21	6.16
07/01/96	06/30/97	0.72	0.89	1.95	0.17	6.04

SOURCE: FEDERAL-STATE JOINT BOARD MONITORING REPORT, MAY 1996.

* These rates are the average of price cap and NECA pool companies. Revenues of these companies comprise approximately 95% of the industry total. The rates are weighted averages of the carriers. Carrier common line (CCL) charges are weighted by CCL minutes. The other access charges are weighted by local switching minutes. Rates for the current period are those effective on July 1, 1996.

** Included with other traffic sensitive charges.

TABLE 41
AVERAGE ACCESS RATE PER MINUTE BY CARRIER
(Price-Cap Companies and NECA)

	Rates Effective 7/01/96					1995 Minutes of Use (Millions)		
Company *	Originating Carrier Common Line	Terminating Carrier Common Line	Switched Traffic Sensitive	Switched Non-Traffic Sensitive	Total Charge per Conversation Minute **	CCL Originating	CCL Terminating	Local Switching
Ameritech	$0.0043	$0.0043	$0.0174	$0.0020	$0.0490	17,222	27,293	44,754
Bell Atlantic	0.0055	0.0055	0.0144	0.0016	0.0445	32,801	28,818	61,611
Bell South	0.0100	0.0120	0.0139	0.0021	0.0558	24,983	36,469	61,879
NYNEX	0.0072	0.0072	0.0272	0.0019	0.0751	22,212	28,903	51,489
Pacific Telesis	0.0055	0.0055	0.0150	0.0020	0.0466	12,036	20,611	32,743
Southwestern	0.0075	0.0075	0.0164	0.0015	0.0525	13,605	21,616	35,576
U S West	0.0056	0.0056	0.0198	0.0017	0.0561	16,565	31,597	48,398
GTE	0.0100	0.0219	0.0203	0.0010	0.0767	16,540	24,385	41,687
Citizens	0.0100	0.0384	0.0330	0.0008	0.1191	1,099	962	2,113
Lincoln	0.0016	0.0016	0.0256	0.0013	0.0591	231	383	616
Frontier	0.0087	0.0091	0.0240	0.0012	0.0706	780	1,353	2,164
Southern New England	0.0057	0.0057	0.0203	0.0019	0.0578	2,941	4,337	7,296
Sprint LTCs	0.0087	0.0158	0.0180	0.0012	0.0649	7,440	10,650	18,245
NECA	0.0082	0.0082	0.0579	0.0007	0.1383	9,823	11,586	21,409
Total Minutes						178,278	248,963	429,980
Average CCL Rates Weighted by Minutes	$0.0071	$0.0090	$0.0195	$0.0017	$0.0605			

SOURCE: FEDERAL-STATE JOINT BOARD MONITORING REPORT, MAY 1996.

* Rates are the composites of all regions and subsidiaries of each company.

** This column was calculated as follows: 107% of the originating CCL rate + 100% of the terminating CCL rate
+ 107% of the the traffic sensitive and non-traffic sensitive rates (for originating access)
+ 100% of the the traffic sensitive and non-traffic sensitive rates (for terminating access).

LIFELINE AND UNIVERSAL SERVICE PROGRAMS:

The FCC has established two assistance programs for low-income subscribers. The first program is designed to assist low-income subscribers afford the monthly cost of local telephone service and is called "lifeline." Connection assistance or "Link-Up" programs, the second type, 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. At the end of 1996, programs had been established in all 50 states, the District of Columbia, the Virgin Islands, and the Commonwealth of Puerto Rico. The type of program used in each state is indicated in Table 42, along with the year in which a program was first certified.

In addition to the programs for low-income subscribers, a Universal Service Fund provides support to local telephone companies that have high costs. All of these assistance programs are financed currently by monthly charges imposed on larger long distance carriers. Under current FCC rules, each long distance carrier serving more than .05% of the nation's telephone lines is billed monthly on a per-line basis to support these programs. These charges are shown in Table 43.

TABLE 42

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

STATE	LIFELINE	LINK-UP
ALABAMA	95	87
ALASKA	93	93
ARIZONA	86	88
ARKANSAS	86	87
CALIFORNIA	85	*
COLORADO	90	90
CONNECTICUT	94	87
DELAWARE		95
DISTRICT OF COLUMBIA	86	87
FLORIDA	94	88
GEORGIA	91	90
HAWAII	86	89
IDAHO	87	88
ILLINOIS	**	93
INDIANA		88
IOWA		88
KANSAS	96	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	95	90
OREGON	86	88
PENNSYLVANIA	95	88
PUERTO RICO		88
RHODE ISLAND	87	87
SOUTH CAROLINA	95	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

SOURCE: INDUSTRY ANALYSIS DIVISION CERTIFICATION PROGRAM.

* CALIFORNIA PROVIDES AN INDEPENDENT CONNECTION ASSISTANCE PROGRAM.
** ILLINOIS COMMERCE COMMISSION'S PROGRAM RELIES ON VOLUNTARY CONTRIBUTIONS.

TABLE 43

MONTHLY CHARGES TO LONG DISTANCE CARRIERS FOR LIFELINE AND UNIVERSAL SERVICE PROGRAMS

Rates in Effect		Monthly Charges per Access Line			Access Lines * (millions)	Approximate Monthly Billing ($ millions)
From	To	Universal Service Fund	Lifeline Link-Up Programs	Total Charge per Access Line		
04/01/89	06/30/89	$0.1753	$0.0467	$0.2220	121.1	$26.35
07/01/89	12/31/89	0.1752	0.0556	0.2308	121.3	27.44
01/01/90	06/30/90	0.2476	0.0366	0.2842	123.1	34.29
07/01/90	12/30/90	0.2367	0.0412	0.2779	125.4	34.15
01/01/91	01/31/91	0.2696	0.0593	0.3289	126.9	40.90
02/01/91	06/30/91	0.3090	0.0593	0.3683	126.9	45.80
07/01/91	12/31/91	0.3185	0.0534	0.3719	129.0	47.02
01/01/92	06/30/92	0.3823	0.0789	0.4612	130.6	59.03
07/01/92	12/31/92	0.3901	0.0733	0.4634	132.0	59.95
01/01/93	01/31/93	0.4404	0.0777	0.5181	133.0	67.53
02/01/93	06/31/93	0.4624	0.0777	0.5401	133.0	70.40
07/01/93	12/31/93	0.4561	0.0809	0.5370	136.4	71.78
01/01/94	01/31/94	0.4520	0.0841	0.5361	138.2	74.09
02/01/94	06/30/94	0.4408	0.0841	0.5249	138.2	72.54
07/01/94	12/31/94	0.4295	0.0901	0.5196	140.0	72.74
01/01/95	06/30/95	0.4335	0.0848	0.5183	142.2	73.70
07/01/95	12/31/95	0.4214	0.0936	0.5150	145.3	74.83
01/01/96	06/30/96	0.4182	0.0928	0.5110	147.0	75.12
07/01/96	12/31/96	0.4365	0.0947	0.5312	149.2	79.26
01/01/97	06/30/97	0.4380	0.0991	0.5371	152.1	81.69

* Billings are made by the National Exchange Carrier Association to interexchange carriers that have more than .05% of the nationwide total presubscribed lines. These carriers serve approximately 98% of total presubscribed lines. The 152.1 million access lines shown for Jan. 1, 1997 are the number of qualified USF loops of billed carriers contributing to the Universal Service Fund.

TELEPHONE COMMUNICATIONS EMPLOYMENT:

The Bureau of Labor Statistics (BLS) publishes monthly data regarding the total number of employed workers in the communications industry. Specifically, BLS compiles employment statistics for the entire telephone communications industry (Standard Industrial Classification (SIC) 481) and for a subset of this industry, telephone communications minus radiotelephone (SIC 4813). The difference between these two figures yields the number of employees in the radiotelephone industry (SIC 4812).

SIC 4813 includes establishments primarily engaged in furnishing telephone voice and data communications, except radiotelephone and telephone answering services. SIC 4812 includes establishments primarily engaged in providing two-way radiotelephone communication services, such as cellular telephone service. It also includes telephone paging and beeper services. Neither of these categories includes employees from establishments primarily engaged in furnishing telephone answering services, manufacturing equipment, or engineering and research services.

Table 44 and the associated graph show the annual average employment figures in the telephone communications industry separately for SIC 4812 and SIC 4813 from 1951 to 1996. Since 1990, employment in the telephone communications industry has grown modestly. Most of the growth in employment over this period is the result of substantial increases in the radiotelephone (cellular, beepers, paging, etc.) industry, which grew at an annual average growth rate of approximately 20%.

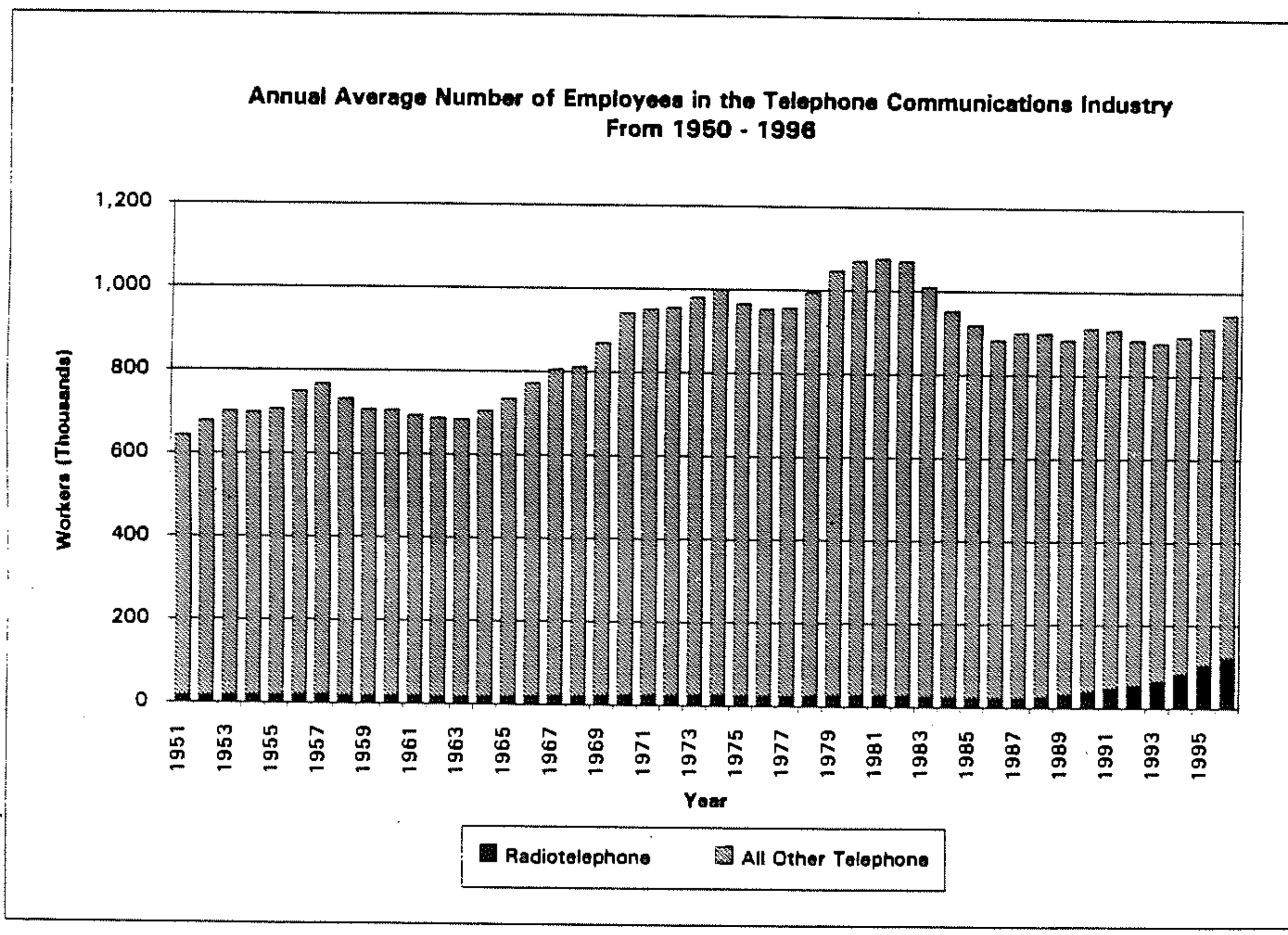
BLS also calculates an annual telecommunications industry labor productivity index. The BLS index of labor productivity relates output to the employee hours expended in producing that output. The labor productivity index is presented in Table 45.

This labor productivity index rose on average 5.8% per year from 1951-1994, with 1994 being the most recent data available. Though this average labor productivity factor is higher than the average in other industries (typically somewhere around 3-4%), this higher than average annual growth rate may be the result of telephone companies utilizing more efficient, advanced technology and increases in human capital. Table 45 and the associated graph illustrate the rising trend in telecommunications labor productivity since 1951.

TABLE 44
ANNUAL AVERAGE NUMBER OF EMPLOYEES IN THE TELEPHONE COMMUNICATIONS INDUSTRY (in thousands)

Year	Radiotelephone	All Other Telephone	Year	Radiotelephone	All Other Telephone	Year	Radiotelephone	All Other Telephone
1951	15.2	628.8	1967	19.0	787.5	1983 *	23.8	986.5
1952	16.0	662.4	1968	19.2	793.2	1984	22.4	931.0
1953	16.6	685.6	1969	20.5	849.5	1985	21.6	899.1
1954	16.5	662.3	1970	22.2	919.9	1986 *	20.7	862.7
1955	16.6	690.1	1971	22.4	929.2	1987	21.1	880.8
1956	17.7	733.5	1972	22.5	933.6	1988	23.2	877.9
1957	18.1	750.1	1973	23.2	958.0	1989 *	29.9	856.0
1958	17.2	714.9	1974	23.6	977.2	1990	38.2	874.8
1959	16.7	690.4	1975	22.8	943.8	1991	45.6	863.6
1960	16.6	689.4	1976	22.5	930.7	1992	53.1	832.1
1961	16.3	677.0	1977	22.6	934.7	1993	63.1	815.9
1962	16.2	671.3	1978	23.4	971.4	1994	81.0	812.4
1963	16.2	669.3	1979	24.8	1023.4	1995	101.7	813.1
1964	16.6	689.5	1980	25.3	1046.9	1996	120.3	825.9
1965	17.3	717.9	1981	25.3	1052.0			
1966	18.3	755.1	1982	25.3	1046.5			

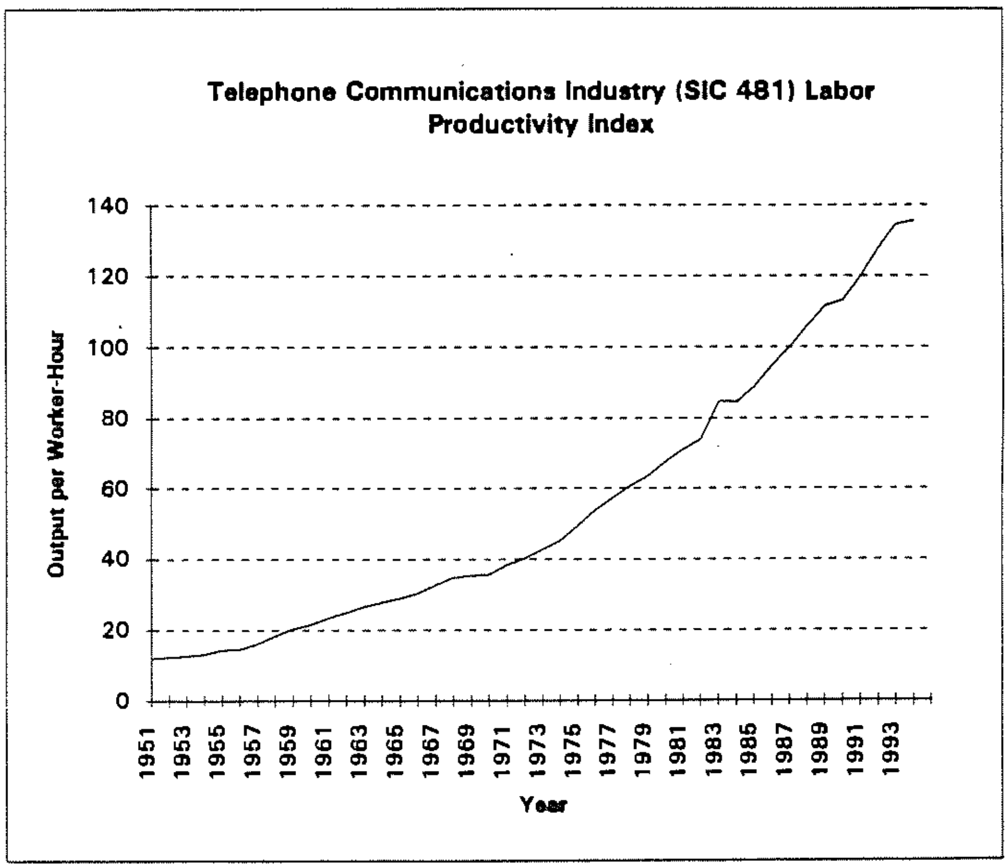
*Due to Bell operating company employee strikes in 1983, 1986, and 1989 that lasted one month each, the reported annual average number of workers for those particular years is an average of the eleven months in which the workers did not strike



Source: Bureau of Labor Statistics.

TABLE 45
LABOR PRODUCTIVITY INDEX FOR THE TELEPHONE COMMUNICATIONS INDUSTRY MEASURED IN OUTPUT PER HOUR (OPH)
(Base year 1987 = 100)

Year	OPH Index	Year	OPH Index	Year	OPH Index
1951	12.0	1966	30.3	1981	71.1
1952	12.4	1967	32.6	1982	73.8
1953	12.6	1968	34.7	1983	84.6
1954	13.2	1969	35.3	1984	84.5
1955	14.3	1970	35.6	1985	88.9
1956	14.6	1971	38.3	1986	95.0
1957	16.1	1972	40.1	1987	100.0
1958	18.2	1973	42.7	1988	106.2
1959	20.3	1974	45.0	1989	111.6
1960	21.4	1975	49.3	1990	113.3
1961	23.3	1976	53.6	1991	119.8
1962	24.8	1977	57.3	1992	127.7
1963	26.6	1978	60.6	1993	134.5
1964	27.8	1979	63.5	1994	135.7
1965	28.9	1980	67.6		



Source: Bureau of Labor Statistics.

COMPLAINTS:

American consumers make billions of phone calls every year. The FCC receives fewer than one complaint for every million calls made. In 1995, the FCC received approximately 38,000 consumer telephone calls and over 25,000 written complaints and inquiries. The FCC tracks trends in consumer complaints to develop policies and rules that will protect consumers in the rapidly changing telecommunications marketplace.

With the breakup of the Bell System, and the growth of competition in the long distance services market, consumers face more telecommunications choices. Consumers now must interact with a variety of companies including local telephone companies, long distance companies, operator service providers (which carry calls and provide operator services for calls dialed from payphones, hotel and motel phones, and other public locations,) billing agents (which handle billing services for other companies,) equipment vendors, and payphone premises owners.

In 1995, 63% of the consumer complaints processed by the Commission involved slamming, operator service providers, and information services. "Slamming," which generated 34% of the complaints, is the unauthorized change of a consumer's chosen long distance company without that consumer's knowledge or consent. Eighteen percent of the complaints involved the services and rates of operator service providers. Complaints about information services -- such as sports scores, psychic reading, and chat lines -- comprised 11% of the complaints.

Although the largest companies generally received the most complaints, the complaint rate for the largest companies was far below some of their smaller competitors after adjusting for company size. Table 46 lists 85 companies that were served with 20 or more complaints in 1995. Large carriers, with revenues over $100 million, are required to file public revenue

carriers, below the $100 million threshold, are also required to file revenue figures, but these are not made public. For those smaller carriers that have more than 100 complaints, a complaint rate has been calculated based on the assumption that their revenues were $100 million. This estimate tends to understate their true complaint ratios. Some companies listed, such as billing agents, are not carriers, and are not required to file revenue figures with the FCC.

TABLE 46

COMPANIES SERVED WITH 20 OR MORE COMPLAINTS IN 1995

Company	Complaints	Communications Revenues	Notes	Complaints per Million $ in Revenues
Absolute Telecommunications	76			
Alltel Corporation	33	1,197,673,000	(1)	0.03
American Network Exchange, Inc.	182	101,000,000	(2)	1.80
American Telecommunications Enterprises, Inc.	87			
American Teletronics	83			
Ameritech	553	10,936,300,000	(1)	0.05
AT&T Corporation	2,316	38,069,000,000	(2)	0.06
Bell Atlantic	762	12,163,345,000	(1)	0.06
BellSouth Telecommunication, Inc.	597	13,900,610,000	(1)	0.04
Capital Network Systems, Inc.	160	100,000,000	(3)	1.60
Cherry Communications	28			
Cleartel Communications	35			
Communication TeleSystems International dba Worldxchange	381	115,000,000	(2)	3.31
Communications Gateway Network	77			
Conquest Operator Services Corporation	32			
Dial & Save	25			
Digital Dial Communications	60			
Discount Network Services, Inc.	28			
Discount Plus Services	21			
E-Tel	68			
Equal Access Corporation	24			
Equal Net Corporation	372	100,000,000	(3)	3.72
Excel Telecommunications, Inc.	68	363,000,000	(2)	0.19
Frontier -- Local	50	621,725,000	(1)	0.08
Frontier -- Long Distance	237	1,398,000,000	(2) (4)	0.17
The Furst Group	683	109,000,000	(2)	6.27
GE Capital Communications Services Corp.	59	120,000,000	(2)	0.49
Great Lakes Telecommunications Corporation	25			
GTE Corporation	1,034	12,847,211,000	(1)	0.08
Heartline Communications, Inc.	294	100,000,000	(5)	2.94
Home Owners Long Distance, Inc.	70			
Info Access Inc.	563	100,000,000	(6)	5.63
Integretel	425	600,000,000	(7)	0.71
Inter Continental Telephone	91			
International Telemedia Associates, Inc.	234	100,000,000	(6)	2.34
LCI International Worldwide Telecommunications	45	671,000,000	(2)	0.07
LD Services, Inc.	95			
LDDS WORLDCOM	559	3,640,000,000	(2)	0.15
LDM Systems Inc.	29			
Long Distance Billing Company, Inc.	71			
Long Distance Direct, Inc.	39			
Long Distance Wholesale Club	30			
Matrix Telecom	58			
MCI Telecommunications Corporation	1,706	12,924,000,000	(2)	0.13

TABLE 46

COMPANIES SERVED WITH 20 OR MORE COMPLAINTS IN 1995
CONTINUED

Company	Complaints	Communications Revenues	Notes	Complaints per Million $ in Revenues
Mid-Wats, Inc.	22			
MIDCOM Communications, Inc.	93	204,000,000	(2)	0.46
Millenium Telecom/Consortium 2000, Inc.	56			
National Accounts Long Distance, Inc.	129	100,000,000	(3)	1.29
National Telephone And Communications, Inc.	31			
Nationwide Long Distance, Inc.	135	100,000,000	(3)	1.35
Network Plus	22			
Network Service Center Inc.	257	100,000,000	(10)	2.57
NYNEX	1,864	12,099,627,000	(1)	0.15
Omega Telecommunications	92			
Omega Telephone Company	47			
One -2- One Communications	65			
One Call Communications, Inc.	240	100,000,000	(3)	2.40
Operator Assistance Network	582	100,000,000	(6)	5.82
Operator Communications, Inc. (OCI) dba Oncor Comm.	933	111,000,000	(2)	8.41
Pacific Telesis Group	1,426	9,042,000,000	(1)	0.16
Pantel Communications	31			
Peoples Telephone Company, Inc.	25			
Pilgrim Telephone, Inc.	141	100,000,000	(3)	1.41
Polar Communications Corporation	50			
Private Line Services	21			
QCC, Inc.	41			
Sonic Communications	1,159	100,000,000	(8)	11.59
Southern New England Telecommunciations Corp.	80	1,327,600,000	(1)	0.06
Southwestern Bell Telephone Company	1,062	8,860,963,369	(1)	0.12
Sprint / United Telephone Cos.	95	4,641,634,000	(1)	0.02
Sprint Communications Company	440	7,277,000,000	(2)	0.06
Telecommunications Company of the Americas	39			
Telcom Advantage Group	53			
Telegroup, Inc.	33	129,000,000	(2)	0.26
Teltrust	20			
Total Telecom, Inc.	43			
Trans National Communications, Inc.	23			
US Long Distance, Inc.	84	155,000,000	(2)	0.54
US Osiris Corporation	21			
US West Communications, Inc.	660	9,214,299,035	(1)	0.07
Value Added Communications	70			
VarTec Telecom, Inc.	29	125,000,000	(2)	0.23
Winstar Gateway Network	25			
WKP Communications	52			
Zero Plus Dialing, Inc.	1,298	444,900,000	(9)	2.91

Source: Industry Analysis Division and Enforcement Division, *Common Carrier Scorecard.*

NOTES FOR TABLE 46.

(1) 1996 Holding Company Report, United States Telephone Association, 1995 operating revenues.

(2) Long Distance Market Shares: Second Quarter 1996, released September 27, 1997 by the FCC.

(3) 1995 TRS revenues filed, below $100 million minimum required for publication.

(4) Only includes subsidiaries with operating revenues over $100 million.

(5) Company appears to be a carrier. Company did not provide revenue figures; $100 million used as an estimate. 1995 TRS revenues not filed.

(6) Company appears to be a billing agent. Company did not provide revenue figures; $100 million used as an estimate.

(7) 1995 billed revenues, according to company spokesperson, May 3, 1996.

(8) Sonic Communications filed for bankruptcy in 1995 and is no longer providing service to the public. $100 million estimated to exceed actual 1995 revenues.

(9) US Long Distance Form 10-K for fiscal year ending September 30, 1995. Subsidiaries Zero Plus Dialing and Enhanced Services Billing billed 444.9 million calls. Billed revenues estimated at $1 per call.

During 1995 Zero Plus Dialing, Inc. was a subsidiary of US Long Distance Corp. A corporate reorganization was subsequently undertaken. Currently, Enhanced Services Billing, Inc.; Billing Information Concepts, Inc. dba Zero Plus Dialing; and Billing Information Concepts, Inc. dba US Billing are subsidiaries of Billing Information Concepts Corp.

(10) Network Service Center, Inc. advised the FCC that it sold its customer base in September 1995 and no longer has any customers. Company did not provide revenue figures; $100 million used as an estimate. 1995 TRS revenues not filed.

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 Tables 47 and 48.

The cellular industry has grown dramatically. Table 47 shows that there were 92,000 subscribers in 1984 as compared to 55 million at the end of 1996. As seen in Table 48, the cellular industry's annual revenues rose from less than $1 billion in 1984 to over $20 billion in 1996. The table also shows that the industry employed 84,141 employees at the end of 1996 as compared to 1,404 in 1984. There has also been a significant drop in the average monthly bill from $96.83 at the end of 1987 to $47.70 at the end of 1996.

TABLE 47

CELLULAR TELEPHONE SUBSCRIBERS

		NUMBER OF SYSTEMS	SUBSCRIBERS
1984	DECEMBER	32	91,600
1985	JUNE	65	203,600
	DECEMBER	102	340,213
1986	JUNE	129	500,000
	DECEMBER	166	681,825
1987	JUNE	206	883,778
	DECEMBER	312	1,230,855
1988	JUNE	420	1,608,697
	DECEMBER	517	2,069,441
1989	JUNE	559	2,691,793
	DECEMBER	584	3,508,944
1990	JUNE	592	4,368,686
	DECEMBER	751	5,283,055
1991	JUNE	1,029	6,390,053
	DECEMBER	1,252	7,557,148
1992	JUNE	1,483	8,892,535
	DECEMBER	1,506	11,032,753
1993	JUNE	1,523	13,067,318
	DECEMBER	1,529	16,009,461
1994	JUNE	1,550	19,283,506
	DECEMBER	1,581	24,134,421
1995	JUNE	1,581	28,154,415
	DECEMBER	1,627	33,785,661
1996	JUNE	1,629	38,195,466
	DECEMBER	1,740	44,042,992

SOURCE: CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION.

TABLE 48

CELLULAR TELEPHONE SERVICE: SURVEY RESULTS

		NUMBER OF SYSTEMS RESPONDING	PERCENT OF INDUSTRY SURVEYED	EMPLOYEES	SIX-MONTH REVENUES (THOUSANDS)	AVERAGE MONTHLY BILL
1984	DECEMBER	32	100.0%	1,404	$178,085	
1985	JUNE	65	100.0%	1,697	176,231	
	DECEMBER	101	100.0%	2,727	306,197	
1986	JUNE	122	96.0%	3,556	360,585	
	DECEMBER	160	95.3%	4,334	462,467	
1987	JUNE	192	88.0%	5,656	479,514	
	DECEMBER	297	97.2%	7,147	672,005	$96.83
1988	JUNE	409	99.9%	9,154	886,075	95.00
	DECEMBER	496	99.1%	11,400	1,073,473	98.02
1989	JUNE	513	99.1%	13,719	1,406,463	85.52
	DECEMBER	546	98.8%	15,927	1,934,132	89.30
1990	JUNE	554	98.8%	18,973	2,126,362	83.94
	DECEMBER	663	98.2%	21,382	2,422,458	80.90
1991	JUNE	905	96.4%	25,545	2,653,505	74.56
	DECEMBER	1,005	96.5%	26,327	3,055,017	72.74
1992	JUNE	1,129	96.3%	30,595	3,633,285	68.51
	DECEMBER	1,189	93.4%	34,348	4,189,441	68.68
1993	JUNE	1,110	92.2%	36,501	4,819,259	67.31
	DECEMBER	1,287	92.3%	39,775	6,072,906	61.48
1994	JUNE	1,242	92.7%	45,606	6,519,030	58.65
	DECEMBER	1,371	93.2%	53,902	7,710,890	56.21
1995	JUNE	1,330	93.9%	60,624	8,740,352	52.42
	DECEMBER	1,392	93.0%	68,165	10,331,614	51.00
1996	JUNE	1,346	92.2%	73,365	11,194,247	48.84
	DECEMBER	1,422	92.4%	84,161	12,440,724	47.70

SOURCE: CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION.

INTERNATIONAL TELEPHONE SERVICE:

International telecommunications has become an increasingly important segment of the telecommunications market. International telephone calling -- propelled by technological innovation, increased international trade and travel, and stable or declining international telephone rates -- has skyrocketed. The number of calls has increased from 200 million in 1980 to 2.8 billion in 1995. In 1995, Americans spent about $14 billion on 2.8 billion international calls. International private line revenues have also increased since 1980, but telex and telegraph services declined substantially over the same period. These trends are shown in Table 49.

U.S. and foreign carriers compensate each other when one carries traffic that the other bills. The number of calls billed in the United States increased at a faster pace than calls billed in foreign countries, contributing to rapid increases in net settlement payments to foreign carriers. These net payments from the United States to other countries reached $4.9 billion in 1995. On average, carriers billed $.88 per minute for international calls in 1995 and paid $.48 per billed minute in settlements. Trends in settlement payments are shown in Table 50. On average, for all traffic, carriers retained $.39 for each international minute that they handled in 1995.

International traffic data is available on a country-by-country basis. Table 51 summarizes traffic by region of the world. Five markets -- Canada, Mexico, the United Kingdom, Germany, and Japan -- currently account for about half of the international calls billed in the United States.

Since 1985, when MCI first entered the market in competition with AT&T, numerous carriers have begun to provide international service. Forty-two carriers provided international telecommunications service in 1995 by using their own facilities or lines leased from other carriers. These carriers billed $15 billion for international services, of which $14 billion was for telephone service. Table 52 shows the U.S.-billed revenues for each of the 42 carriers. Together, AT&T, MCI, and Sprint account for 96% of the facilities-based international service billed in the United States.

In addition to the 42 carriers that owned or leased facilities, 230 carriers reported the resale of international message telephone service. These carriers reported $1.8 billion of resale revenue in 1995. The revenues for the fifty largest resellers are shown in Table 53.

TABLE 49
INTERNATIONAL SERVICE FROM U.S. TO FOREIGN POINTS
(Minute, message, and revenue amounts shown in millions)

	Telephone Service					Other Services			
			Billed Revenue			Billed Revenue			
	Minutes	Messages	Total	Per minute *	Per call	Telex	Telegraph	Private Line	Misc.
1980	1,569	199	$2,097	$1.34	$10.53	$325	$63	$115	
1981	1,857	233	2,239	1.21	9.61	350	62	126	
1982	2,187	274	2,382	1.09	8.70	363	56	138	
1983	2,650	322	2,876	1.09	8.92	379	54	154	
1984	3,037	367	3,197	1.05	8.71	394	46	158	
1985	3,350	411	3,435	1.03	8.37	415	45	172	
1986	3,917	482	3,891	0.99	8.07	390	42	175	
1987	4,480	570	4,559	1.02	8.00	360	35	191	
1988	5,190	687	5,507	1.06	8.02	310	30	194	
1989	6,109	835	6,517	1.07	7.80	243	27	208	
1990	7,215	984	7,626	1.06	7.75	196	24	201	
1991	8,986	1,371	9,096	1.01	6.63	200	15	303	$23
1992	10,156	1,643	10,179	1.00	6.20	155	16	313	24
1993	11,393	1,926	11,353	1.00	5.89	135	12	365	23
1994	13,393	2,313	12,255	0.92	5.30	123	12	432	55
1995	15,838	2,821	13,991	0.88	4.96	119	6	432	55

TABLE 50
INTERNATIONAL TELEPHONE SERVICE SETTLEMENTS
(Revenue amounts shown in millions)

							Average per Minute		
	Billed Revenue	Owed to Foreign Carriers	Retained Revenue	Due from Foreign Carriers	Net Settlements	Net Revenue	Settlement Owed for U.S. Billed Calls	Settlement Due for Foreign Billed Calls	Net Revenue All Traffic
1980	$2,097	$1,063	$1,034	$716	($347)	$1,750	$0.68	$0.62	$0.64
1981	2,239	1,330	910	799	(531)	1,708	0.72	0.56	0.52
1982	2,382	1,674	708	961	(712)	1,670	0.77	0.60	0.44
1983	2,876	2,036	841	1,086	(950)	1,926	0.77	0.60	0.43
1984	3,197	2,269	928	1,066	(1,203)	1,994	0.75	0.54	0.40
1985	3,435	2,369	1,066	1,239	(1,130)	2,305	0.71	0.55	0.41
1986	3,891	2,802	1,089	1,387	(1,414)	2,476	0.72	0.56	0.39
1987	4,559	3,309	1,250	1,634	(1,675)	2,884	0.74	0.61	0.39
1988	5,507	3,868	1,640	1,840	(2,028)	3,480	0.75	0.62	0.41
1989	6,517	4,513	2,004	2,115	(2,398)	4,119	0.74	0.61	0.42
1990	7,626	5,079	2,547	2,317	(2,762)	4,863	0.70	0.60	0.42
1991	9,096	5,792	3,304	2,493 **	(3,298)	5,798	0.64	0.47	0.42
1992	10,179	5,945	4,234	2,601 **	(3,344)	6,835	0.59	0.43	0.43
1993	11,353	6,327	5,027	2,678 **	(3,649)	7,704	0.56	0.39	0.44
1994	12,255	6,947	5,308	2,658 **	(4,289)	7,966	0.52	0.35	0.39
1995	13,991	7,559	6,433	2,622 **	(4,937)	9,054	0.48	0.29	0.39

Sources: Industry Analysis Division, *Trends in the International Telecommunications Industry* and *Section 43.61 International Telecommunications Data*.

* Billed revenue per minute for international service differs in Table 10 and Table 49. Data in Table 10 is based on traffic to foreign points for all U.S. carriers serving all U.S. points. Data for Table 49 is based on traffic for domestic U.S. points, only. The domestic U.S. includes Puerto Rico but excludes American Samoa, Guam, the Norther Mariana Islands, and the U.S. Virgin Islands.

** Includes transiting traffic.

TABLE 51
INTERNATIONAL MESSAGE TELEPHONE SERVICE FOR 1995

(Figures rounded to the nearest million)

International Point	Traffic Billed in the United States					Traffic Billed in Foreign Countries: Originating or Terminating in the United States			Traffic Billed in Foreign Countries: TRANSITING	Total U.S. Carrier
	Number of Messages	Number of Minutes	U.S. Carrier Revenue	Owed to Foreign Carriers	Retained Revenue	Number of Messages	Number of Minutes	Due from Foreign Carriers	Retained Revenue	Retained Revenue
Western Europe	619	3,408	$2,916	$1,044	$1,873	376	1,812	$540	$46	$2,458
North and Central America	1,078	5,577	3,334	1,805	1,529	624	2,982	523	8	2,060
Asia	470	2,851	3,346	2,012	1,334	234	961	613	28	1,975
South America	230	1,282	1,307	853	454	83	354	230	13	697
Caribbean	173	1,089	1,058	577	481	80	351	168	8	658
Middle East	83	556	686	525	161	32	168	157	17	335
Africa	63	408	524	303	222	25	90	68	26	316
Oceania	56	300	341	107	234	44	211	68	13	315
Eastern Europe	56	409	497	310	187	26	120	94	9	289
Other Regions	3	9	39	35	4	*	1	2	1	7
Total for Foreign Points	2,821	15,838	13,991	7,559	6,433	1,517	7,005	2,455	166	9,054
Total for U.S. Points	9	51	57	11	47	8	46	9	1	57
Total for all International points	2,830	15,889	14,048	7,569	6,479	1,525	7,051	2,464	167	9,111

Source: Industry Analysis Division, *Section 43.61 International Telecommunications Data.*

The region totals include all traffic reported by carriers serving Alaska, Hawaii, Puerto Rico, and the conterminous United States, and include traffic between these points and off-shore U.S. points such as Guam and the U.S. Virgin Islands. This traffic is shown separately as the total for U.S. points, and also is included in the total for all international points.

U.S. Billed Minutes by Country

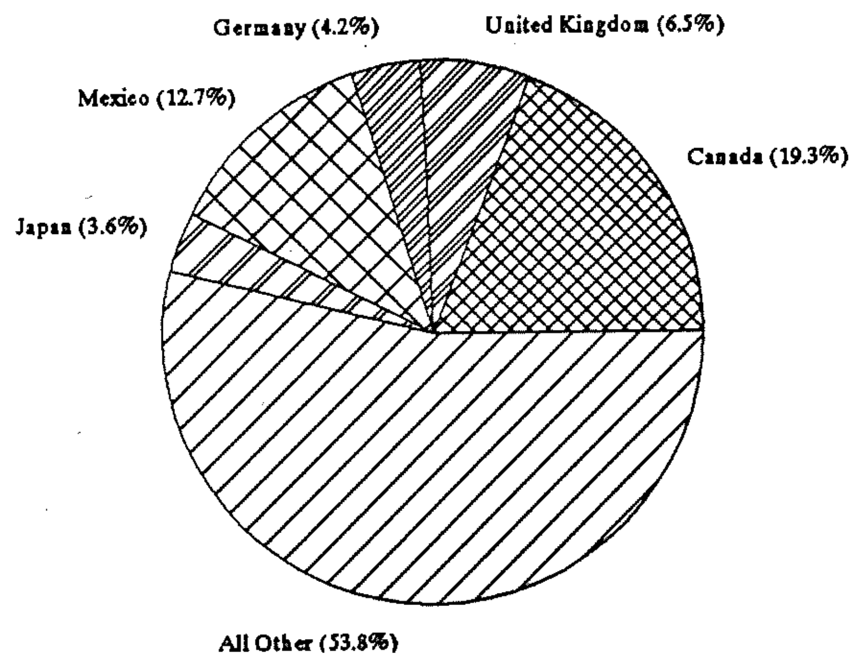


TABLE 52

U.S. BILLED REVENUES OF FACILITIES–BASED AND FACILITIES–RESALE CARRIERS IN 1995 *

(Revenue amounts shown in millions)

	International Service					Total
	Telephone	Telex	Telegraph	Private Line	Miscellaneous	International Billed Revenue
ACC Global Corp.	1					1
Alascom, Inc.	10					10
American Samoa Office of Communications	3					3
AmericaTel Corporation				1		1
AT&T Corp.	8,425	66	3	202	5	8,702
BT North America, Inc.				2		2
Cable & Wireless, Inc.	7			2		9
Communication TeleSystems International	6					6
Comsat Corporation				1		1
Cyberlink, Inc.				**		**
EMI Communications Corporation					**	**
Esprit Telecom of the United Kingdom	1					1
fONOROLA Corp.	20					20
Geocomm Corp.				2		2
GTE Corporation	28			2	**	30
Harris Corporation	**					**
Hughes Communications Carrier Services, Inc.				**		**
International Telecommunications Corporation	11			**		11
IT&E Overseas, Inc.	39			1		39
Local Communications Network, Inc.				**		**
MCI / Western Union International	3,968	43	2	148	1	4,162
Melbourn International Communications Ltd.	1			1		2
MFS International	1			17		18
Micronesian Telecommunications Corp.	16	**	**	1		16
MicroNet, Inc.					2	2
Mobile Satellite Communications, Inc.				2	**	2
Northern Communications, Inc.				**		**
Overseas Telecommunications, Inc.				3		3
Pacific Gateway Exchange, Inc.	12			**		12
PSO, Inc. d/b/a Canal Uno					**	**
Satellite Communication Systems, Inc.	**			2		2
Southern Satellite Systems, Inc. /LMC SatCom				1		1
Sprint	1,289	3		42	38	1,371
STARTEC, Inc.	4					4
Telecomunicaciones Ultramarinas–Puerto Rico				1		1
Telefonica Larga Distancia, Inc.	26			1		27
The Associated Group, Inc.				**		**
The Williams Companies, Inc./VYVX, Inc.					1	1
TresCom International, Inc.	1			**		1
U.S. Long Distance, Inc.	1					1
Viatel Incorporated	1					1
WorldCom, Inc. d/b/a LDDS WorldCom	291	8	1	85		384
Total ***	$14,159	$119	$6	$514	$48	$14,848

Source: Industry Analysis Division, *Section 43.61 International Telecommunications Data.*

* Totals exclude pure resale services.

** Represents revenues greater than $0 but less than $500,000.

*** Table 52 includes revenue for American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands. Other tables in this section exclude this traffic. U.S. carriers billed $111 million for telephone service provided in these points and $14,048 million for service provided in domestic U.S. points. These figures add to the $14,159 total shown in this table.

TABLE 53
TOP 50 PROVIDERS OF PURE RESALE INTERNATIONAL MTS IN 1995

	Number of Messages	Number of Minutes	U.S. Carrier Revenue	Percent of total IMTS Resale Revenue
WorldCom, Inc.	118,246,235	423,321,522	$188,325,534	10.735%
Cable & Wireless	69,383,639	291,144,998	170,246,192	9.704%
Frontier	38,907,042	143,918,114	131,609,089	7.502%
Telegroup	24,370,878	118,378,327	102,970,425	5.869%
Trescom	37,516,635	160,764,748	90,189,051	5.141%
LCI	25,988,843	110,917,088	72,276,204	4.120%
Sprint	6,944,655	38,425,074	68,221,864	3.889%
Communication TeleSystems International	21,862,500	114,558,978	61,940,984	3.531%
Caribbean Telephone & Telegraph, Inc.	18,803,152	102,149,531	60,270,665	3.435%
MCI International, Inc.	6,779,891	50,559,000	51,553,000	2.939%
Pacific Gateway Exchange, Inc.	21,750,357	89,677,959	46,506,990	2.651%
MIDCOM Communications, Inc.	11,749,717	53,670,757	34,331,668	1.957%
Viatel Global Communications	7,828,081	24,644,968	29,953,218	1.707%
E-Tel Incorporated	963,807	6,960,729	27,634,094	1.575%
Excel Telecommunications, Inc.	3,051,418	23,836,730	27,391,874	1.561%
Cherry Communications Incorporated	12,549,320	58,514,448	26,289,022	1.498%
International Telecommunications Corporation	8,304,828	53,147,138	26,260,258	1.497%
MFS Intelenet, Inc.	8,902,808	31,988,521	26,152,625	1.491%
International Telcom Ltd.	4,099,959	28,676,883	24,819,409	1.415%
Capital Network System, Inc.	774,244	5,037,797	24,240,528	1.382%
Home Owners Long Distance, Inc.	6,379,298	43,379,228	18,929,293	1.079%
Telco Communications Group, Inc. dba Dial & Save	3,540,641	20,425,949	18,782,528	1.071%
ACC Long Distance Corp.	12,378,040	50,778,648	18,108,769	1.032%
Adir International Communications Services Corp. Ltd.	2,693,750	12,930,000	18,589,000	0.946%
Star Vending d/b/a Star Telecommunications, Inc.	8,302,036	38,106,349	15,762,248	0.898%
Long Distance Wholesale Club	1,850,837	16,743,920	15,367,171	0.876%
Tel-Save, Inc.	4,073,182	14,301,903	14,978,608	0.854%
MATRIX Telecom	2,338,818	15,059,071	13,857,129	0.790%
L.D. Services, Inc.	1,748,274	11,374,388	13,496,964	0.769%
Cyberlink, Inc.	5,919,906	24,873,463	13,061,784	0.745%
GTE	1,939,429	5,123,588	12,082,239	0.689%
Working Assets Funding Services, Inc.	1,637,760	12,572,228	11,619,690	0.662%
URUS Telecom Corporation	3,355,070	8,226,344	11,566,967	0.659%
The Furst Group, Inc.	3,606,910	10,820,732	11,511,177	0.656%
FaxSav Incorporated	6,405,481	10,308,156	10,187,308	0.581%
Phoenix Network, Inc.	3,465,277	11,361,358	8,604,550	0.490%
Telefonica Larga Distancia (TLD)	530,119	2,586,953	8,105,874	0.462%
Business Telecom, Inc (BTI)	2,435,091	8,506,088	7,403,817	0.422%
TeleData International, Inc.	1,056,340	4,831,886	7,247,828	0.413%
GCI Communications Corp.	867,725	6,274,058	7,063,914	0.403%
VarTec Telecom, Inc.	1,042,696	8,543,196	6,872,724	0.392%
Executive TeleCard Ltd.	934,724	4,450,342	6,346,857	0.362%
Teltrust Communications Services, Inc.	1,311,232	6,720,878	6,263,253	0.357%
Telenational Communications	2,195,030	9,568,955	6,098,649	0.348%
Qwest Communications Corporation	3,426,858	13,001,498	6,074,530	0.346%
Trans National Communications, Inc.	1,133,089	5,739,361	6,010,815	0.343%
Miami International Gateway	4,262,046	9,351,063	5,724,975	0.326%
Network Plus, Inc.	2,216,328	7,106,688	5,711,340	0.326%
Shared Technologies Fairchild	1,169,022	4,449,513	5,556,375	0.317%
National Communications Assoc., Inc.	1,557,167	4,889,508	5,407,793	0.308%
All Other Carriers	48,141,960	209,039,939	$148,813,847	8.5%
Total	586,712,137	2,541,738,545	$1,754,388,704	

Source: Industry Analysis Division, *Section 43.61 International Telecommunications Data.*

*   *   *   *   *

The information in this report and, in many cases, more detailed information can be downloaded from the **FCC-State Link** internet site, which can be reached via a link from the Common Carrier Bureau home page (http://www.fcc.gov/ccb/) on the World Wide Web. The report can also be downloaded from the **FCC-State Link** electronic bulletin board by calling 202-418-0241.

Printed copies of statistical reports are available for reference in the Common Carrier Bureau's Public Reference Room (Room 575 at 2000 M Street, N.W.) and from the Commission's duplicating contractor (International Transcription Services, Inc. (ITS), 202-857-3800).

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 (202-512-1800).

FCC rules require carriers to provide more detailed traffic 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. Detailed international data is available from *International Telecommunications Data* and *Trends in the International Telecommunications Industry*, both of which are published by the Industry Analysis Division.

The information on cellular telephone service shown in Tables 47 and 48 was prepared by the Cellular Telecommunications Industry Association (1133 21st Street N.W., Washington, D.C. 20036, 202-785-0081).

The United States Telephone Association represents virtually all local telephone companies (1401 H Street N.W., Washington D.C. 20005, 202-326-7300). Like many trade associations, it collects information from each of its members. Annually, it publishes and sells statistical publications such as *Statistics of the Local Exchange Carriers*.

The names, addresses and telephone numbers for companies in the telephone industry are in the Industry Analysis Division's *Carrier Locator*.

For more information on the following subjects, the following individuals may be contacted at 202-418-0940:

Access Charges	Jim Lande
Complaints	Katie Rangos
Consumer Expenditures	Tracy Waldon
Employment	Joe Bender
International Statistics	Linda Blake or Jim Lande
Lifeline Assistance Programs	Larry Povich
Lines and Calling Volumes	Alex Belinfante or Adrianne Brent
Market Shares	Joe Bender or Katie Rangos
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Publication: Trends In Telephone Service: March 1997

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