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Report No. DC-1013 ACTION IN DOCKET CASE September 30, 1987

FIRST MONITORING REPORT ON TELEPHONE SERVICE RELEASED
(CC DOCKET 87-339)

The Federal-State Joint Board staff released the first in a series of reports to be issued over the next five years that are intended to assist telecommunications policymakers and the general public in monitoring the impact of two major decisions adopted by the FCC during 1987. Copies of the report were transmitted today to members of the Federal-State Joint Board, the Federal Communications Commission and the Congress.

In the first of these decisions, the Commission adopted the recommendations of the Federal-State Joint Board in CC Docket 80-286 to increase subscriber line charges (SLCs), expand the federal lifeline assistance program, retarget the formula for high cost assistance, and modify the common line pooling system. In the second decision, the Commission adopted the recommendations of the Joint Board in CC Docket 86-297 to simplify jurisdictional separations rules and conform them to the recently revised Uniform System of Accounts.

This report presents currently available data in each of the eight subject categories selected for monitoring: (1) subscribership and penetration levels; (2) lifeline assistance plans, including both the SLC waiver and Link-Up programs; (3) costs and high cost assistance; (4) network usage and growth; (5) rates and revenues; (6) bypass; (7) pooling and rate deaveraging; and (8) jurisdictional shifts in revenue requirements.

The data in this and future reports will serve as the foundation of the studies to be undertaken by the members of the Joint Board in CC Docket 80-286 90 days prior to the scheduled implementation of SLC increases in December 1988 and April 1989.

Comments on this first report are requested by October 28, 1987. However, these monitoring efforts are being conducted in the context of an open docket, which allows materials, comments and studies to be submitted at any time.

Copies of the report are available from the Commission's duplicating contractor, ITS, 2100 M St., NW, Washington, DC 20037; (202) 857-3800.

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Monitoring Report
CC Docket No. 87-339
September 1987

Prepared by the Staff of the
Federal-State Joint Board
In CC Docket No. 80-286

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Monitoring Report
CC Docket No. 87-339
September 1987

Introduction and Summary

This is the first in a series of reports to be issued over the next five years that are intended to help telecommunications policymakers and the general public in monitoring the impact of two major decisions adopted by the Federal Communications Commission (Commission) during 1987. In the first of these decisions, the Commission adopted the recommendations of the Federal-State Joint Board in CC Docket No. 80-286 to increase subscriber line charges, expand the federal lifeline assistance program, retarget the formula for high cost assistance, and modify the common line pooling system. In the second decision, the Commission adopted the recommendations of the Federal-State Joint Board in CC Docket No. 86-297 to simplify jurisdictional separations rules and conform those rules to the recently revised Uniform System of Accounts.

In an Order released on August 26, 1987, the Commission, acting upon the recommendations of the Joint Boards in CC Docket Nos. 80-286 and 86-297, established a program to monitor the impact of the two above-noted decisions. This report presents currently available data in each of the eight subject categories selected for monitoring: (1) subscribership and penetration levels; (2) lifeline assistance plans, including both the subscriber line charge waiver and Link-Up programs; (3) costs and high cost assistance; (4) network usage and growth; (5) rates and revenues; (6) bypass; (7) pooling and rate deaveraging; and (8) jurisdictional shifts in revenue requirements.

This report consists primarily of data pertaining to each of the eight monitoring subject categories. These data are intended to serve as a baseline of information that reflects as nearly as possible the situation prior to implementation of the decisions recommended by the Joint Boards and adopted by the Commission. The construction of this baseline is important because it will facilitate analysis and interpretation of data presented in future reports. Statistically significant data on the impact of the Commission decisions we are monitoring are not available at this time, for several reasons. First, several aspects of these decisions will not be implemented for some time. Changes in assistance to high cost telephone companies will not be implemented until ~~September~~ January 1988, for example, and modifications to the common line pooling system are not scheduled for implementation until early in 1989. Second, as the Joint Board and the Commission recognized in their discussion of the monitoring program, delays often occur in the collection and distribution of large amounts of statistical data. Telephone company reports on revenue and network usage, for example, normally are not compiled until several months after a particular reporting period has ended. Finally, although several aspects of

the Commission's decisions already have been implemented -- such as the expanded federal lifeline program and the July 1987 increase in subscriber line charges paid by residential customers and businesses with a single telephone line -- it will take some time for consumers to become aware of these changes and to factor them into their decisions about telephone service.

A limited amount of data reflecting the results of the July 1987 increase in subscriber line charges is available, however, as reflected in the Consumer Price Index and Producer Price Index. On September 23rd, for example, the Bureau of Labor Statistics released the Consumer Price Index (CPI) for August. Viewed in conjunction with previously available data, these most recent data show that for the 12 months ending in August 1987, the nation's overall rate of inflation was 4.3% (measured by the CPI for all items). The price of telephone service, in contrast, declined by 1.4% during the same 12 month period. The CPI for telephone services is based on a market basket of services purchased by typical consumers and thus includes both local and long distance service. More specifically, the overall CPI for telephone service is composed of three subindexes. During the most recent 12 months, the local service component increased at an annual rate of 3.5%, while the price of interstate toll calls fell 13.1% and the price of state toll calls fell 3.0%. The overall decline of 1.4% in the CPI for telephone service is one indication that, given the mixture of local and toll service purchased by the typical household, price decreases for toll calls more than offset any local rate increases and the effects of subscriber line charges. The PPI indexes for August indicate little change from July. While several of the August indexes indicate price reductions, the indexes are subject to some variation from random sampling errors and few conclusions should be drawn based on only the changes in a single month's results.

We have also received, from the Bureau of the Census, nationwide penetration figures as of July 1987. These figures indicate that 92.3% of households subscribed to telephone service during the four month period ending July 1987 -- an increase of one tenth of a percentage point from the prior July, and a decline of two tenths of a percentage point from the results reported in March, with neither change being statistically significant. As described in the section on penetration and subscribership, however, most of the data included in the July report were collected prior to July 1 and the resulting penetration level -- 92.3% -- should be regarded as baseline information rather than as a reflection of any recent changes in Commission policies.

Taken together, the data in this and future reports will serve as the foundation for the review to be undertaken by members of the Joint Board in CC Docket No. 80-286 ninety days prior to the scheduled implementation of subscriber line charge increases in December 1988 and April 1989. With this task in mind, we hope to improve upon the format and coverage of this report in the months ahead. The Commission's Order establishing the monitoring program included, at the suggestion of the National Association of Regulatory Utility Commissioners, a comment period that ends on October 28, 1987. We expect that these comments will be especially useful in compliling future reports. We emphasize, however, that our monitoring efforts are being conducted in the context of an open docket, which allows materials, comments, and studies to be submitted at any time. We plan to include in future reports a list and summary of comments that have been received in the docket in the period since the last report. For ease of public reference we ask that parties submitting materials for the docket provide a duplicate copy to the Public Reference Room of the Common Carrier Bureau's Industry Analysis Division [1] -- where a copy of all materials filed in the docket are provided for public reference. No comments had yet been filed in this docket at the time of the preparation of this first report.

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1. Subscribership and Penetration Levels

The number of households and the percentage of households that have telephone service represent the most basic measures of the extent of universal service. Continuing analysis of telephone penetration statistics allows us to examine the aggregate effects of Commission actions on households' decisions to maintain, acquire or drop telephone service. This section presents comprehensive data on telephone penetration statistics collected by the Bureau of the Census under contract with the FCC. Along with telephone penetration statistics for the United States and each of the states from November 1983 to July 1987, data are provided on penetration based on various demographic characteristics.

Prior to the 1980s, precise measurements of telephone subscribership received little attention. The most widely used measure of telephone availability is the percentage of households with telephone service --sometimes called a measure of telephone "penetration". This statistic, however, can be subject to large measurement errors. Traditionally, telephone penetration was measured by dividing the number of residential telephone lines by the number of households. With some households adding second telephone lines and with an increasing number of second homes, measures of penetration based on the number of residential lines became subject to a large margin of error.

By 1980, the traditional penetration measure (residential lines divided by the number of households) reached 96% while the number of households reporting telephones in the 1980 census was slightly less than 93%. Recognizing the need for precise periodic measurements of subscribership, the Federal Communications Commission requested that the Bureau of the Census include questions on telephones as part of its Current Population Survey (CPS), which monitors demographic trends between the decennial censuses. This survey is a staggered panel survey of about 58,000 people in which the people residing at particular addresses are included for four consecutive months in one year and the same four months in the following year. It is staggered in that one-eighth of the sample is replaced every month. Use of the Current Population Survey has several advantages -- it is conducted every month by an independent and expert agency, the sample is large and the questions are consistent. Thus, changes in the results can be compared over time with a great deal of confidence.

Unfortunately, the results of the Current Population Survey cannot be directly compared with the penetration figures contained in the 1980 decennial census. This is because differences in the sampling methodologies exist and because of the context in which the questions were asked.

The specific questions asked in the Current Population Survey are: "Is there a telephone in this house/apartment?" and, if the answer to the first question is "no", "Is there a telephone elsewhere on which people in this household can be called?" Although the survey is conducted every month,

not all questions are asked every month. The telephone questions are asked once every four months, in the month that a household is first included in the sample and in the month that the household reenters the sample a year later. Since the sample is staggered, the information that is reported for any given month actually reflects responses over the preceding four months. Aggregated summaries of the responses are reported to the FCC, based on the surveys conducted through March, July, and November of each year. These reports are generally released approximately two months after the final month of each four month survey period.

The data show that no significant change has occurred in the percentage of households subscribing to telephone service for the past year. As a result of an increasing number of households, 1.2 million households were added to the nation's telephone system between July 1986 and July 1987.

Census Bureau figures for July 1987 indicate that 92.3% of all households in the U.S. have a telephone. [2] The level of subscribership increased 0.1% from the previous July report. The subscribership level declined 0.2% from the March 1987 report. Neither of these changes is statistically significant. Because there is an overlap of half of the sample from year to year, but no overlap in the sample between surveys that are four months apart, annual changes are less subject to variations in sampling error.

This report includes figures showing subscribership percentages by state, by householder's age and race, by household size, by family income, and for individual persons by labor force status. The data for individual persons show that 93.4% of those adults in the civilian noninstitutionalized population have a telephone in their household. This figure is unchanged from July 1986 and down 0.2% from March 1987. This change is also not statistically significant.

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2 As noted above, the Census Bureau figures released for March, July, and November each year are actually based on the four month period ending in the named month, rather than only on data collected during that month. Thus, a more technically correct description is that, during the four months ending in July 1987, the nationwide penetration rate was 92.3%. For most purposes, this technical distinction is unimportant. Since subscriber line charges were increased on July 1, and the most recent Census data is based primarily on data collected before that date, however, the data contained in the July report should be regarded as baseline data rather than post-increase data.

This section contains thirteen tables and charts presenting penetration statistics broken out for various geographic and demographic characteristics. They are here summarized seritatim:

-- Table 1.1 summarizes the telephone penetration for the United States, combining information on the number of households with the penetration rates.

-- Table 1.2 shows the Current Population Survey responses for the United States and for each state for the period from November 1983 through July 1987. Because the Current Population Survey began collecting this data only in 1983, comparable values are not available prior to November 1983. For each of the surveys, the column headed "Unit" indicates the percentage of households for which the response to the first question was "yes". The column headed "Avail." indicates the percentage of households which responded "yes" to either the first or the second question. The annual averages are the average of the 3 surveys of the year in question.

-- Chart 1.1 depicts the nationwide penetration rates for households graphically, with the values taken from the top line of Table 2.

-- Table 1.3 shows the nationwide penetration rates for households by the age and race of the householder. It shows that the penetration rate is lowest for young and non-white households.

-- Table 1.4 shows the nationwide penetration rates for households by the size of the household and the race of the householder. It shows that penetration is highest for households of 2 to 5 people.

-- Table 1.5 shows the nationwide penetration rates for households by family income and the race of the householder. It shows a strong relationship between income and penetration.

-- Table 1.6 shows the nationwide penetration rates for all persons at least 16 years old in the civilian noninstitutionalized population by their race and employment status. Since this table is for individuals rather than households, the total penetration rates are different from those in the previous tables. It shows that penetration is lowest among the unemployed.

-- Chart 1.2 depicts the nationwide penetration rates for individuals graphically, with the values taken from the totals in Table 6.

-- Tables 1.7-1.11 present critical values for the earlier tables. The Census Bureau data are based on a nationwide sample of about 58,000 households. Because a sample is used, the estimates are subject to random sampling error. For the nationwide totals, the critical value for determining a significant difference in telephone penetration over time is 0.5% (at the 95% confidence level). For individual states, the amount of sampling variability is much greater. These critical values are shown in

Table 1.7 and are relevant because changes less than or equal to the values shown are likely to be due to sampling error and thus cannot be regarded as demonstrating that a change in telephone penetration has occurred. When comparing the annual averages, the critical values should be multiplied by 0.5774, since these are based on three surveys and hence have a lower standard error. Tables 1.8, 1.9, 1.10 and 1.11 show the corresponding critical values for testing for significant differences over time for the penetration rates shown in Tables 1.3, 1.4, 1.5, and 1.6, respectively. In some cases these critical values are very large because the sample sizes are very small for these subcategories, rendering the estimated penetration rates unreliable.

In addition to the regular CPS reports, which the tables and charts in this section reflect, the Joint Board asked that all of the seven Regional Bell Operating Companies and GTE voluntarily conduct special disconnect studies and report the results to the open docket. Each study should involve a sample of telephone exchanges from one of each company's study areas and a survey of those customers whose service is terminated to discern the reason for the termination. Because these surveys have commenced, a benchmark of information will be available for the period prior to the July 1 increase in SLCs. This benchmark is necessary for us to compare the effects before and after the increase. The studies should continue for at least three months after the initial increase to allow time for customers to react. The exchanges sampled should include representation of low income areas, in which any possible effect on subscribership is most likely to occur, as well as medium and high income areas. For those subscribers disconnected during the study period, the study should attempt to determine: (1) whether the termination of service was voluntary or involuntary; (2) the composition of the unpaid bill for involuntary disconnections (e.g., the dollar amount of SLCs, nonrecurring charges, interstate and state toll charges, basic local service charges, and other recurring charges) as determined from the company's billing records; (3) the type of service subscribed to (e.g., flat rate, measured, lifeline, etc.); and, (4) the reason for voluntary disconnections, i.e., whether the reason was economic (such as an increase in telephone bills or a decrease in personal income) or noneconomic (such as death or relocation), as well as the composition of the bills for the preceding three months in the case of voluntary disconnections for economic reasons.

We request that the results of those studies be reported as soon as they are available. To be most useful, these results should be reported before February 15, 1988. In addition, we have requested the designated LECs to update their disconnect studies and report the results by August 31, 1988, and December 31, 1988, so that these reports can be considered by the Joint Board during the study and review period in advance of the December 1, 1988, and April 1, 1989, SLC increases.

TABLE 1.1

Telephone Penetration in the U.S.

Date	Households (millions)	Households with Telephones (millions)	Percentage with Telephones	Households without Telephones (millions)	Percentage without Telephones
November 1983	85.8	78.4	91.4%	7.4	8.6%
March 1984	86.0	78.9	91.8	7.1	8.2
July 1984	86.6	79.3	91.6	7.3	8.4
November 1984	87.4	79.9	91.4	7.5	8.6
March 1985	87.4	80.2	91.8	7.2	8.2
July 1985	88.2	81.0	91.8	7.2	8.2
November 1985	88.8	81.6	91.9	7.2	8.1
March 1986	89.0	82.1	92.2	6.9	7.8
July 1986	89.5	82.5	92.2	7.0	7.8
November 1986	89.9	83.1	92.4	6.8	7.6
March 1987	90.2	83.4	92.5	6.8	7.5
July 1987	90.7	83.7	92.3	7.0	7.7

TABLE 1.2

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY NATIONAL TOTAL AND STATES

	1983 NOVEMBER		1984 MARCH		JULY		NOVEMBER		1984 ANNUAL AVERAGE		1985 MARCH	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	91.4	93.7	91.8	93.6	91.6	93.8	91.4	93.6	91.6	93.7	91.8	93.7
ALABAMA	87.9	90.2	88.9	90.4	90.3	91.8	86.1	89.3	88.4	90.5	88.4	90.3
ALASKA	83.8	88.8	85.8	88.7	87.6	90.0	86.1	88.4	86.5	89.0	89.4	91.7
ARIZONA	88.8	90.7	89.6	90.6	84.2	86.8	87.0	90.7	86.9	89.4	87.0	89.4
ARKANSAS	88.2	91.4	87.1	90.1	87.8	92.6	84.8	89.2	86.6	90.6	85.7	89.8
CALIFORINA	91.7	93.5	92.8	93.8	92.2	93.8	92.4	93.8	92.5	93.8	93.0	94.1
COLORADO	94.4	96.5	94.7	96.4	91.9	94.4	93.2	95.2	93.2	95.4	96.2	97.7
CONNECTICUT	95.5	98.4	94.5	96.2	96.0	97.6	96.0	97.2	95.5	97.0	94.9	97.2
DELAWARE	95.0	96.6	95.4	96.3	93.7	95.1	93.7	95.8	94.3	95.7	96.6	97.4
DIST OF COL	94.7	95.6	96.1	97.5	93.5	95.4	95.1	96.0	94.9	96.3	91.6	93.5
FLORIDA	85.5	89.9	89.9	92.4	89.6	91.4	86.6	90.1	88.7	91.3	88.8	90.9
GEORGIA	88.9	92.1	85.8	88.2	86.8	90.5	86.0	88.7	86.2	89.1	89.0	91.1
HAWAII	94.6	96.4	93.6	94.2	95.1	96.3	91.9	94.3	93.5	94.9	93.3	95.1
IDAHO	89.5	92.2	90.4	91.8	91.0	91.8	90.8	91.4	90.7	91.7	91.7	93.3
ILLINOIS	95.0	95.9	95.7	96.8	93.6	95.0	93.2	95.5	94.2	95.8	94.4	95.6
INDIANA	90.3	93.5	91.8	93.2	91.2	93.3	91.7	94.4	91.6	93.6	91.7	94.8
IOWA	95.4	97.2	95.7	96.2	97.5	98.7	95.4	97.2	96.2	97.4	96.0	96.9
KANSAS	94.9	96.7	94.4	95.4	95.1	96.4	93.5	95.6	94.3	95.8	94.8	97.1
KENTUCKY	86.9	90.9	87.1	90.6	88.3	91.2	89.1	91.1	88.1	91.0	89.0	92.1
LOUISIANA	88.9	93.3	89.8	92.2	88.7	93.1	90.5	92.7	89.7	92.7	90.5	93.5
MAINE	90.7	93.1	94.4	95.7	92.1	94.9	93.9	95.2	93.4	95.3	94.2	95.3
MARYLAND	96.3	96.7	96.1	96.9	94.9	95.7	96.1	96.8	95.7	96.5	95.2	96.2
MASSACHUSETTS	94.3	95.9	95.7	96.5	96.5	97.4	95.4	96.9	95.9	96.9	95.6	96.7
MICHIGAN	93.8	94.9	93.1	95.0	93.0	94.5	92.4	94.0	92.8	94.5	92.6	94.1
MINNESOTA	96.4	97.5	95.8	97.4	96.6	97.2	95.0	96.6	95.8	97.1	97.1	98.2
MISSISSIPPI	82.4	89.1	81.8	86.1	83.1	89.8	82.2	86.6	82.4	87.5	81.6	87.0
MISSOURI	92.1	94.1	92.1	94.0	91.3	93.2	91.0	93.9	91.5	93.7	92.6	94.2
MONTANA	92.8	94.5	90.2	93.9	91.6	94.5	91.1	93.8	91.0	94.0	92.2	95.2
NEBRASKA	94.0	95.3	96.4	97.2	94.8	95.8	95.9	97.3	95.7	96.8	96.4	96.9
NEVADA	89.4	91.9	93.0	95.6	88.2	89.8	89.8	93.0	90.4	92.8	91.3	93.6
NEW HAMPSHIRE	95.0	96.9	94.7	96.3	95.9	96.4	92.4	94.7	94.3	95.8	93.4	94.4
NEW JERSEY	94.1	95.1	93.5	95.0	96.0	96.9	94.8	96.3	94.8	96.1	95.1	96.5
NEW MEXICO	85.3	90.9	81.0	85.8	81.2	86.3	84.0	88.8	82.0	87.0	85.0	88.0
NEW YORK	90.8	92.2	91.2	92.5	92.3	94.5	91.8	93.6	91.8	93.6	92.0	93.1
N. CAROLINA	89.3	92.9	88.5	92.2	87.9	91.4	88.5	92.2	88.3	91.9	89.8	92.2
N. DAKOTA	95.1	97.3	94.1	96.3	95.2	97.7	94.6	96.3	94.6	96.8	95.0	96.1
OHIO	92.2	93.9	93.2	94.9	93.4	95.1	90.8	93.3	92.4	94.4	91.7	94.7
OKLAHOMA	91.5	93.7	91.1	92.5	89.4	92.3	90.3	92.6	90.3	92.5	90.3	92.7
OREGON	91.2	93.5	91.1	92.6	92.2	93.5	88.5	90.9	90.6	92.3	89.2	91.0
PENNSYLVANIA	95.1	97.1	94.4	96.0	95.1	96.4	95.1	97.2	94.9	96.5	94.2	95.5
RHODE ISLAND	93.3	94.6	94.2	95.1	92.7	93.9	93.9	95.0	93.6	94.6	93.4	94.4
S. CAROLINA	81.8	84.9	84.5	87.9	83.6	88.1	82.9	87.1	83.7	87.7	87.2	90.6
S. DAKOTA	92.7	95.0	92.8	94.3	92.8	95.2	94.0	95.2	93.2	94.9	92.4	94.5
TENNESSEE	87.6	92.6	87.0	90.3	88.3	92.0	90.1	93.8	88.5	92.0	87.7	90.0
TEXAS	89.0	92.6	88.2	91.7	87.6	91.0	89.4	92.3	88.4	91.6	87.8	91.5
UTAH	90.3	92.2	92.2	94.1	93.2	94.6	92.2	93.9	92.5	94.2	95.3	95.7
VERMONT	92.7	94.3	91.2	93.4	93.1	94.6	92.5	94.0	92.3	94.0	90.6	91.8
VIRGINIA	93.1	94.7	93.2	95.1	93.0	95.6	92.9	94.6	93.1	95.1	92.8	94.5
WASHINGTON	92.5	93.7	92.7	94.3	93.6	95.2	92.7	93.6	93.0	94.4	92.7	94.4
W. VIRGINIA	88.1	91.1	87.2	93.5	86.5	90.0	89.4	92.1	87.7	91.8	88.1	91.4
WISCONSIN	94.8	96.1	95.9	96.3	93.5	96.0	96.3	97.4	95.2	96.6	93.8	95.7
WYOMING	89.7	93.3	89.2	92.3	88.4	91.2	92.1	95.0	89.9	92.8	91.7	94.2

TABLE 1.2 (Cont.)

	1985 JULY		1985 NOVEMBER		1985 ANNUAL AVERAGE		1986 MARCH		1986 JULY		1986 NOVEMBER	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	91.8	93.9	91.9	94.0	91.8	93.9	92.2	93.9	92.2	94.0	92.4	94.4
ALABAMA	89.1	90.9	89.9	91.8	89.1	91.0	89.1	90.6	89.5	91.3	87.5	89.4
ALASKA	86.4	88.0	85.7	88.7	87.1	89.5	88.4	91.0	83.5	86.1	87.3	89.6
ARIZONA	88.0	89.8	86.9	89.8	87.3	89.6	90.8	91.8	89.8	91.4	87.6	89.4
ARKANSAS	86.6	90.8	85.5	89.2	85.9	89.9	85.8	89.4	85.1	89.8	88.3	92.1
CALIFORINA	92.7	94.1	93.0	94.1	92.9	94.1	93.3	94.1	92.3	93.2	93.4	94.8
COLORADO	93.7	95.9	93.1	95.0	94.3	96.2	95.0	97.1	93.2	94.8	94.2	96.0
CONNECTICUT	96.5	97.6	97.1	98.0	96.2	97.6	97.3	97.7	96.8	98.3	97.0	97.8
DELAWARE	94.4	96.1	93.4	95.2	94.8	96.2	95.2	97.0	93.5	95.4	95.3	96.5
DIST OF COL	93.6	94.9	95.6	97.4	93.6	95.2	91.9	93.3	93.6	94.8	91.1	93.9
FLORIDA	89.5	91.6	90.3	92.7	89.6	91.7	89.1	91.3	89.9	92.4	91.1	93.8
GEORGIA	88.4	90.2	85.4	88.0	87.6	89.7	88.2	91.4	89.1	91.4	88.0	90.2
HAWAII	92.7	95.8	93.1	94.2	93.0	95.0	94.3	96.0	92.8	94.0	89.6	93.2
IDAHO	91.1	92.7	92.6	93.5	91.8	93.1	92.1	93.6	89.8	91.8	92.7	93.7
ILLINOIS	93.4	95.3	93.3	95.2	93.7	95.3	93.4	94.7	94.4	95.5	93.2	95.5
INDIANA	92.8	95.0	92.4	94.3	92.3	94.7	92.9	94.7	91.4	93.8	92.4	94.5
IOWA	94.6	96.4	94.7	95.9	95.1	96.4	95.5	96.6	96.0	96.9	95.6	96.1
KANSAS	93.9	95.9	94.4	96.2	94.4	96.4	93.9	95.4	94.5	96.0	95.4	96.9
KENTUCKY	86.8	90.3	86.4	90.8	87.4	91.1	87.3	90.3	85.3	90.0	86.1	91.6
LOUISIANA	90.3	94.0	90.2	93.4	90.3	93.6	90.5	93.0	89.7	93.2	85.9	89.6
MAINE	93.8	95.2	94.2	96.2	94.0	95.6	92.8	95.5	93.0	94.8	94.3	95.9
MARYLAND	96.2	98.1	95.3	95.9	95.5	96.7	95.7	96.6	95.6	96.8	95.9	96.7
MASSACHUSETTS	95.0	95.9	94.8	96.5	95.2	96.3	96.3	97.2	96.5	97.1	96.4	97.1
MICHIGAN	93.5	94.7	92.6	93.7	92.9	94.2	93.7	94.5	93.3	94.7	93.4	94.4
MINNESOTA	96.8	97.4	95.3	96.7	96.4	97.4	95.6	97.0	96.4	96.9	96.7	97.9
MISSISSIPPI	80.1	88.7	81.0	87.0	80.9	87.6	81.9	87.5	76.9	86.6	81.6	87.8
MISSOURI	92.9	95.2	92.0	95.0	92.5	94.8	93.0	93.8	94.1	95.8	93.1	95.0
MONTANA	90.0	91.4	92.0	95.1	91.4	93.9	93.0	95.1	89.1	92.6	90.6	93.5
NEBRASKA	95.0	96.3	94.6	96.7	95.3	96.6	96.0	97.2	95.0	96.1	95.8	97.1
NEVADA	90.3	92.8	94.0	95.1	91.8	93.8	91.0	92.7	92.9	93.6	93.1	94.8
NEW HAMPSHIRE	93.0	94.2	93.4	95.4	93.2	94.6	93.9	95.0	93.4	94.0	94.6	96.1
NEW JERSEY	95.4	96.5	94.1	95.5	94.9	96.2	94.2	95.6	96.0	96.9	94.4	96.0
NEW MEXICO	85.1	88.8	82.1	87.8	84.1	88.2	86.0	89.4	85.2	88.9	84.2	89.1
NEW YORK	91.2	93.1	93.0	94.5	92.1	93.6	92.9	93.9	93.7	94.7	93.0	94.3
N. CAROLINA	89.2	92.7	89.2	92.2	89.4	92.4	90.0	92.1	90.6	93.0	90.1	92.5
N. DAKOTA	95.1	96.7	95.7	97.4	95.3	96.7	95.0	95.5	95.6	97.2	97.9	98.2
OHIO	93.3	95.1	91.7	93.8	92.2	94.5	93.6	95.1	92.7	94.0	92.8	94.1
OKLAHOMA	87.0	89.6	89.2	92.6	88.8	91.7	89.7	92.7	91.1	93.0	90.5	93.4
OREGON	91.0	93.2	90.6	92.0	90.3	92.1	92.6	94.6	92.6	94.5	92.9	93.6
PENNSYLVANIA	95.8	96.8	95.8	97.5	95.3	96.6	95.9	97.4	96.3	97.1	96.7	97.7
RHODE ISLAND	95.1	96.4	93.6	94.5	94.0	95.1	95.0	95.8	97.1	97.7	95.5	96.8
S. CAROLINA	85.6	90.5	87.6	90.4	86.8	90.5	88.8	91.6	83.8	88.8	86.3	91.4
S. DAKOTA	93.1	94.2	92.2	94.9	92.6	94.5	93.4	94.2	91.5	93.3	92.9	95.1
TENNESSEE	88.3	91.8	91.9	95.9	89.3	92.6	89.7	92.9	88.5	93.3	90.8	94.8
TEXAS	87.7	91.6	88.9	91.8	88.1	91.6	87.7	90.7	89.4	92.1	89.5	92.8
UTAH	93.3	95.1	93.2	94.5	93.9	95.1	93.8	94.5	91.8	93.0	93.3	94.3
VERMONT	93.0	94.4	95.1	96.2	92.9	94.1	93.7	94.9	93.4	95.2	94.4	96.5
VIRGINIA	90.4	92.3	92.0	94.5	91.7	93.8	92.0	93.7	91.3	93.7	92.9	94.9
WASHINGTON	96.1	97.5	95.3	96.6	94.7	96.2	92.2	94.6	96.6	97.7	95.2	96.4
W. VIRGINIA	88.7	92.8	86.1	90.8	87.6	91.7	90.7	93.7	87.4	91.6	86.5	90.3
WISCONSIN	94.4	95.5	94.1	95.0	94.1	95.4	94.6	95.1	95.4	95.8	95.4	96.7
WYOMING	92.7	93.8	95.7	96.7	93.4	94.9	90.5	93.7	92.4	94.8	93.3	96.8

TABLE 1.2 (Cont.)

	1986 ANNUAL AVERAGE		1987 MARCH		JULY	
	Unit	Avail	Unit	Avail	Unit	Avail
UNITED STATES	92.3	94.1	92.5	94.3	92.3	94.2
ALABAMA	88.7	90.4	87.2	89.9	86.3	88.5
ALASKA	86.4	88.9	88.3	90.5	87.4	89.6
ARIZONA	89.4	90.9	89.1	91.8	88.6	90.4
ARKANSAS	86.4	90.4	87.0	90.4	85.8	90.4
CALIFORINA	93.0	94.0	94.3	95.4	93.2	94.5
COLORADO	94.1	96.0	93.2	96.4	93.0	95.0
CONNECTICUT	97.0	97.9	97.9	97.9	96.7	98.2
DELAWARE	94.7	96.3	96.5	97.6	96.9	97.7
DIST OF COL	92.2	94.0	91.2	93.1	92.1	94.2
FLORIDA	90.0	92.5	91.2	93.1	92.3	94.5
GEORGIA	88.4	91.0	87.5	90.7	89.2	92.0
HAWAII	92.2	94.4	94.8	96.5	94.8	96.9
IDAHO	91.5	93.1	90.9	91.7	90.4	92.1
ILLINOIS	93.6	95.2	94.0	95.6	93.3	95.2
INDIANA	92.2	94.3	91.3	92.9	91.0	93.4
IOWA	95.7	96.5	95.5	96.7	94.9	96.4
KANSAS	94.6	96.1	95.5	96.6	95.2	96.4
KENTUCKY	86.2	90.6	87.4	90.9	85.0	89.9
LOUISIANA	88.7	91.9	86.9	90.6	89.5	91.6
MAINE	93.4	95.4	94.2	95.9	93.1	94.6
MARYLAND	95.7	96.7	96.2	96.5	94.2	96.1
MASSACHUSETTS	96.4	97.1	96.7	97.5	97.0	97.4
MICHIGAN	93.4	94.5	94.1	95.0	93.3	94.4
MINNESOTA	96.2	97.2	95.8	97.6	96.0	97.5
MISSISSIPPI	80.1	87.3	82.6	87.7	79.8	82.8
MISSOURI	93.4	94.9	91.5	94.3	93.5	95.6
MONTANA	90.9	93.7	91.4	94.2	89.3	92.1
NEBRASKA	95.6	96.8	95.0	96.4	95.1	95.7
NEVADA	92.4	93.7	92.1	92.6	92.5	94.3
NEW HAMPSHIRE	94.0	95.0	94.0	96.2	94.8	96.1
NEW JERSEY	94.9	96.1	94.3	95.5	95.6	96.6
NEW MEXICO	85.1	89.1	89.1	91.7	83.6	87.9
NEW YORK	93.2	94.3	93.3	94.2	92.5	94.1
N. CAROLINA	90.2	92.5	89.7	92.1	89.5	91.9
N. DAKOTA	96.1	97.0	97.8	98.2	96.1	96.8
OHIO	93.1	94.4	93.4	94.8	93.9	95.0
OKLAHOMA	90.4	93.0	88.5	91.9	89.1	92.5
OREGON	92.7	94.3	91.1	92.3	94.5	96.6
PENNSYLVANIA	96.3	97.4	96.0	97.0	97.0	97.8
RHODE ISLAND	95.9	96.8	95.1	96.6	95.0	95.8
S. CAROLINA	86.3	90.6	89.0	91.2	85.6	89.0
S. DAKOTA	92.6	94.2	92.2	95.1	93.3	94.9
TENNESSEE	89.6	93.6	89.3	92.3	89.1	91.6
TEXAS	88.9	91.9	90.4	92.4	89.5	92.3
UTAH	93.0	93.9	93.2	94.6	90.1	94.5
VERMONT	93.8	95.6	95.8	96.8	95.4	96.7
VIRGINIA	92.1	94.1	92.9	94.8	92.7	94.5
WASHINGTON	94.6	96.3	93.2	96.5	94.5	95.9
W. VIRGINIA	88.2	91.9	88.7	91.5	88.1	91.5
WISCONSIN	95.1	95.9	96.2	97.0	95.5	96.1
WYOMING	92.1	95.1	93.3	95.2	93.5	95.3

CHART 1.1

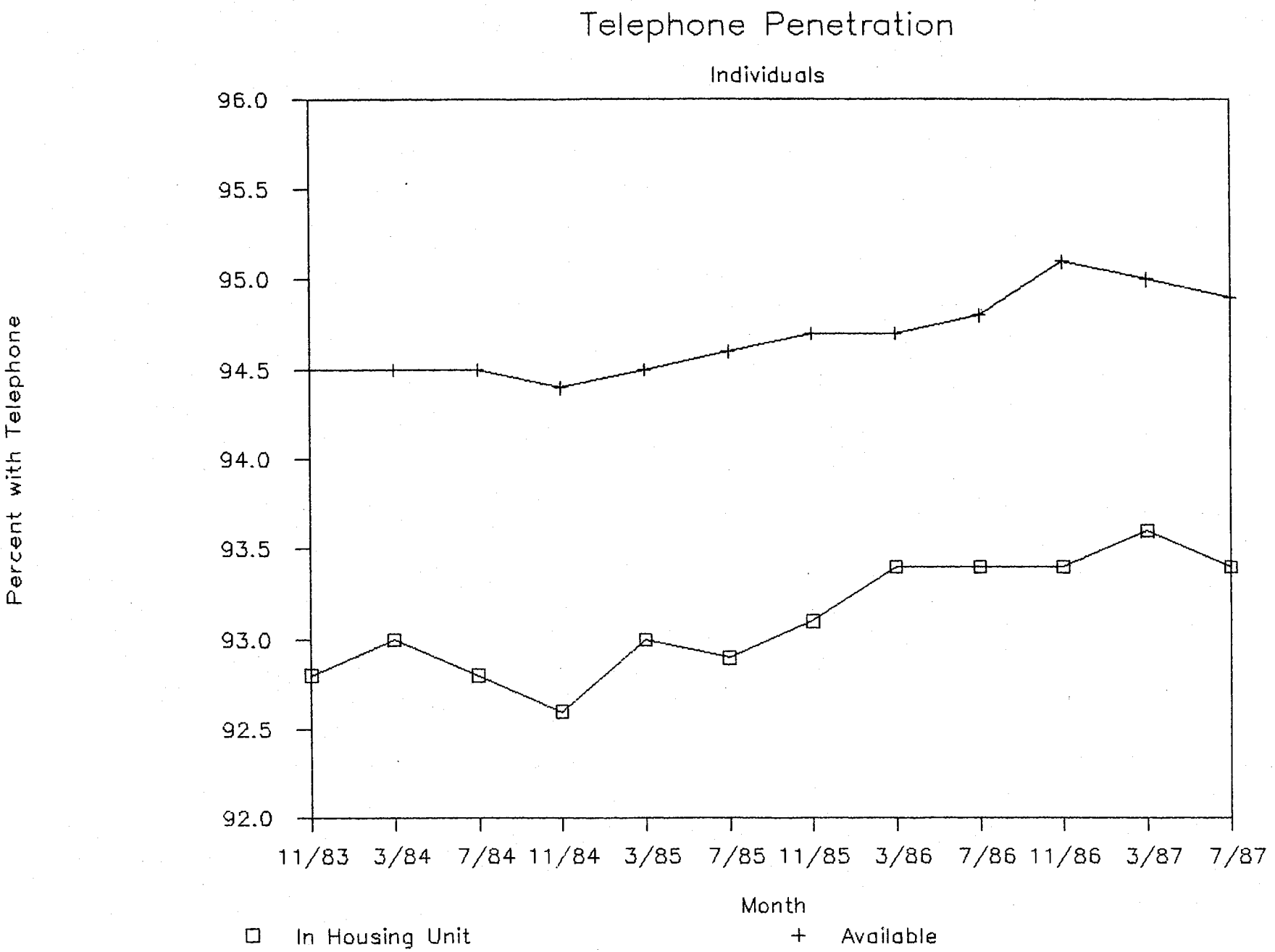
Telephone Penetration
Individuals
Percent with Telephone
96.0
95.5
95.0
94.5
94.0
93.5
93.0
92.5
92.0
11/83
3/84
7/84
11/84
3/85
7/85
11/85
3/86
7/86
11/86
3/87
7/87
Month
In Housing Unit
Available

TABLE 1.3

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLDER'S AGE

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 83								
TOTAL HOUSEHOLDS	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
16-24 YRS OLD	76.6	84.1	80.2	86.2	49.9	68.2	64.9	71.9
25-54 YRS OLD	91.5	93.7	93.4	95.2	78.7	83.3	81.8	85.6
55-59 YRS OLD	95.0	96.1	96.1	97.0	86.3	88.5	89.3	89.3
60-64 YRS OLD	95.5	96.4	96.4	97.2	89.5	90.7	87.3	90.2
65-69 YRS OLD	95.5	96.2	96.5	97.0	87.2	89.0	90.7	90.7
70-99 YRS OLD	95.4	96.5	96.0	97.0	90.1	92.3	85.5	89.1
MARCH 84								
TOTAL HOUSEHOLDS	91.8	93.6	93.3	94.9	80.1	84.1	80.7	83.6
16-24 YRS OLD	77.8	84.0	80.3	85.5	57.9	71.5	59.0	66.2
25-54 YRS OLD	91.9	93.7	93.5	95.0	80.4	84.0	83.2	85.6
55-59 YRS OLD	94.9	95.9	95.7	96.6	87.6	89.9	88.7	90.5
60-64 YRS OLD	94.2	95.3	95.9	96.7	81.7	85.0	87.4	89.6
65-69 YRS OLD	96.1	96.6	97.0	97.4	87.8	89.3	85.8	87.8
70-99 YRS OLD	95.3	96.3	96.2	97.1	87.2	88.8	82.2	85.5
JULY 84								
TOTAL HOUSEHOLDS	91.6	93.8	93.2	95.0	80.5	85.3	81.1	84.6
16-24 YRS OLD	77.0	83.3	79.4	85.3	60.4	70.0	62.9	70.8
25-54 YRS OLD	91.7	93.8	93.4	95.1	79.8	84.9	83.1	85.8
55-59 YRS OLD	95.1	96.3	96.1	97.1	87.5	90.2	87.4	91.4
60-64 YRS OLD	95.0	96.2	95.8	96.9	87.7	89.5	88.1	90.5
65-69 YRS OLD	96.4	97.1	97.3	97.9	89.3	91.3	88.7	90.6
70-99 YRS OLD	95.2	96.5	95.9	96.9	89.6	93.1	84.0	88.5
NOVEMBER 84								
TOTAL HOUSEHOLDS	91.4	93.6	93.1	95.0	78.9	84.0	81.1	84.5
16-24 YRS OLD	76.1	83.4	79.0	85.4	56.3	70.8	60.8	70.8
25-54 YRS OLD	91.4	93.6	93.3	95.1	78.5	83.3	83.1	85.8
55-59 YRS OLD	94.9	96.2	96.3	97.5	84.7	87.4	85.3	88.3
60-64 YRS OLD	95.6	96.5	96.5	97.3	90.3	92.1	86.0	87.2
65-69 YRS OLD	96.0	96.7	97.1	97.6	86.7	89.1	96.2	96.2
70-99 YRS OLD	95.3	96.6	96.1	97.2	88.0	90.7	87.1	88.8
1984 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
16-24 YRS OLD	77.0	83.6	79.6	85.4	58.2	70.8	60.9	69.2
25-54 YRS OLD	91.7	93.7	93.4	95.1	79.6	84.1	83.1	85.7
55-59 YRS OLD	94.9	96.1	96.1	97.1	86.6	89.2	87.1	90.1
60-64 YRS OLD	94.9	96.0	96.0	97.0	86.6	88.8	87.1	89.1
65-69 YRS OLD	96.2	96.8	97.1	97.6	87.9	89.9	90.2	91.5
70-99 YRS OLD	95.3	96.5	96.0	97.1	88.2	90.9	84.4	87.6

TABLE 1.3 (Cont.)

MARCH 85								
TOTAL HOUSEHOLDS	91.8	93.7	93.3	95.0	80.1	84.4	81.2	84.1
16-24 YRS OLD	77.3	83.1	79.6	84.8	59.8	70.0	62.4	67.1
25-54 YRS OLD	91.9	93.8	93.6	95.2	79.5	83.9	83.0	85.5
55-59 YRS OLD	94.9	95.9	95.8	96.7	87.3	89.1	86.5	89.1
60-64 YRS OLD	94.3	95.4	95.5	96.2	84.4	87.6	91.3	93.2
65-69 YRS OLD	96.1	97.0	96.8	97.5	90.7	93.6	86.5	90.4
70-99 YRS OLD	95.6	96.5	96.5	97.3	87.4	89.4	87.4	91.7
JULY 85								
TOTAL HOUSEHOLDS	91.8	93.9	93.2	95.0	81.6	85.8	80.3	83.3
16-24 YRS OLD	78.3	84.4	80.7	86.3	59.6	70.2	67.8	73.7
25-54 YRS OLD	91.8	93.9	93.3	95.1	81.4	85.8	81.0	83.6
55-59 YRS OLD	94.7	95.9	95.9	96.8	86.3	89.4	87.2	88.0
60-64 YRS OLD	95.0	95.9	95.5	96.4	91.1	91.8	85.5	88.3
65-69 YRS OLD	95.5	96.5	96.7	97.4	86.1	88.5	85.9	89.7
70-99 YRS OLD	95.6	96.8	96.2	97.3	90.8	92.4	87.6	90.5
NOVEMBER 85								
TOTAL HOUSEHOLDS	91.9	94.0	93.3	95.2	81.5	85.3	82.5	85.7
16-24 YRS OLD	78.0	83.9	80.6	86.3	60.7	68.1	64.3	71.6
25-54 YRS OLD	91.9	94.0	93.5	95.3	81.1	85.2	83.4	86.5
55-59 YRS OLD	95.0	96.2	95.7	96.8	90.0	91.4	88.4	90.6
60-64 YRS OLD	95.5	96.3	96.3	97.0	89.8	91.3	92.3	92.3
65-69 YRS OLD	96.1	97.0	97.0	97.7	88.0	90.8	95.1	95.1
70-99 YRS OLD	95.3	96.6	96.0	97.2	88.9	90.5	87.8	90.4
1985 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
16-24 YRS OLD	77.9	83.8	80.3	85.8	60.0	69.4	64.8	70.8
25-54 YRS OLD	91.9	93.9	93.5	95.2	80.7	85.0	82.5	85.2
55-59 YRS OLD	94.9	96.0	95.8	96.8	87.8	90.0	87.4	89.2
60-64 YRS OLD	94.9	95.9	95.8	96.5	88.4	90.2	89.7	91.3
65-69 YRS OLD	95.9	96.8	96.8	97.5	88.2	90.9	89.1	91.7
70-99 YRS OLD	95.5	96.6	96.2	97.3	89.1	90.7	87.6	90.9
MARCH 86								
TOTAL HOUSEHOLDS	92.2	93.9	93.6	95.0	82.0	85.8	81.5	83.9
16-24 YRS OLD	78.1	82.9	80.6	84.7	58.2	69.0	60.1	63.8
25-54 YRS OLD	92.3	93.9	93.8	95.1	82.1	85.6	83.1	85.3
55-59 YRS OLD	95.2	96.3	96.1	97.0	87.8	90.6	86.8	90.3
60-64 YRS OLD	95.5	96.2	96.2	96.9	89.0	90.5	92.4	92.4
65-69 YRS OLD	95.7	96.7	96.6	97.4	87.2	89.8	94.1	95.1
70-99 YRS OLD	95.9	97.0	96.4	97.5	91.2	93.0	93.1	96.2
JULY 86								
TOTAL HOUSEHOLDS	92.2	94.0	93.7	95.2	81.5	85.7	81.1	83.6
16-24 YRS OLD	79.7	85.4	82.0	86.7	63.8	76.6	64.1	69.7
25-54 YRS OLD	92.1	93.9	93.8	95.3	80.4	84.4	83.0	85.1
55-59 YRS OLD	95.0	96.0	96.0	96.9	87.9	90.0	86.0	87.1
60-64 YRS OLD	95.3	96.2	95.9	96.6	90.9	92.9	81.8	85.1
65-69 YRS OLD	95.7	96.5	96.7	97.4	87.8	89.4	91.4	92.6
70-99 YRS OLD	95.8	96.5	96.4	97.1	90.6	91.8	85.3	86.1

TABLE 1.3 (Cont.)

NOVEMBER 86								
TOTAL HOUSEHOLDS	92.4	94.4	93.8	95.5	81.3	86.1	81.6	84.7
16-24 YRS OLD	79.4	84.7	81.9	86.3	57.5	71.1	65.9	68.8
25-54 YRS OLD	92.2	94.3	93.9	95.6	80.8	85.5	82.6	86.0
55-59 YRS OLD	95.3	96.6	96.1	97.0	88.3	93.2	90.1	93.8
60-64 YRS OLD	95.4	96.2	96.6	97.4	86.7	87.8	93.2	93.6
65-69 YRS OLD	96.0	96.9	96.7	97.5	90.2	92.5	85.7	88.0
70-99 YRS OLD	96.4	97.3	96.8	97.7	92.2	93.9	84.1	86.9
1986 ANNUAL AVERAGE								
TOTAL HOUSEHOLDS	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
16-24 YRS OLD	79.0	84.4	81.5	85.9	59.8	72.2	63.4	67.4
25-54 YRS OLD	92.2	94.0	93.8	95.3	81.1	85.2	82.9	85.5
55-59 YRS OLD	95.2	96.3	96.1	97.0	88.0	91.3	87.6	90.4
60-64 YRS OLD	95.4	96.2	96.2	97.0	88.9	90.4	89.1	90.3
65-69 YRS OLD	95.8	96.7	96.7	97.4	88.4	90.6	90.4	91.9
70-99 YRS OLD	96.0	97.0	96.5	97.4	91.3	92.9	87.5	89.8
MARCH 87								
TOTAL HOUSEHOLDS	92.5	94.3	93.9	95.4	82.2	85.7	84.1	86.5
16-24 YRS OLD	79.7	85.5	81.9	87.0	64.3	73.8	68.1	75.1
25-54 YRS OLD	92.6	94.2	94.1	95.5	81.7	85.3	85.1	87.0
55-59 YRS OLD	95.0	96.1	96.4	97.0	85.0	88.6	87.4	90.5
60-64 YRS OLD	95.6	96.4	96.5	97.2	87.6	89.8	92.6	92.6
65-69 YRS OLD	95.6	96.2	96.5	97.0	87.9	89.2	89.4	89.4
70-99 YRS OLD	95.8	97.0	96.3	97.5	91.4	92.3	95.3	96.1
JULY 87								
TOTAL HOUSEHOLDS	92.3	94.2	93.7	95.3	82.0	86.0	83.1	85.2
16-24 YRS OLD	78.2	83.3	81.2	85.7	57.6	67.2	66.2	69.7
25-54 YRS OLD	92.1	94.2	93.6	95.3	81.9	86.2	84.2	86.1
55-59 YRS OLD	95.4	96.2	96.5	97.2	87.1	89.8	90.8	92.4
60-64 YRS OLD	95.8	96.4	96.7	97.2	88.5	90.2	91.1	93.7
65-69 YRS OLD	96.5	97.2	97.5	98.1	88.9	90.2	87.5	87.5
70-99 YRS OLD	96.0	96.9	96.4	97.3	93.4	94.1	88.8	91.6

TABLE 1.4

PERCENTAGE OF HOUSEHOLDS WITH A TELEPHONE BY HOUSEHOLD SIZE

HOUSEHOLD SIZE	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 83								
TOTAL	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
1 PERSON	87.5	91.3	90.2	93.7	71.2	77.1	73.8	82.0
2 - 3	93.3	95.0	94.5	95.9	82.5	87.8	80.7	84.3
4 - 5	92.4	94.2	93.6	95.0	83.1	87.3	83.4	86.2
6 +	86.6	88.9	90.5	92.2	74.5	78.5	81.0	84.0
MARCH 84								
TOTAL	91.8	93.6	93.3	94.9	80.1	84.1	80.7	83.6
1 PERSON	88.6	91.7	90.7	93.3	73.9	79.9	72.2	76.4
2 - 3	93.3	94.9	94.5	95.8	82.4	86.2	80.7	84.2
4 - 5	92.7	94.0	94.1	95.2	82.9	85.7	85.4	87.2
6 +	86.4	88.3	88.6	90.2	78.8	82.0	78.8	81.5
JULY 84								
TOTAL	91.6	93.8	93.2	95.0	80.5	85.3	81.1	84.6
1 PERSON	88.6	92.1	90.2	93.4	77.3	83.2	71.9	80.5
2 - 3	93.1	94.9	94.4	95.8	82.2	87.2	82.5	85.1
4 - 5	92.3	93.9	93.8	95.1	81.9	86.1	83.9	86.3
6 +	87.6	89.3	91.0	92.3	76.1	79.0	79.5	83.1
NOVEMBER 84								
TOTAL	91.4	93.6	93.1	95.0	78.9	84.0	81.1	84.5
1 PERSON	87.8	91.5	90.1	93.5	73.5	78.9	74.6	81.1
2 - 3	93.1	95.0	94.4	96.0	82.3	87.1	82.7	86.2
4 - 5	92.3	93.9	93.9	95.1	80.6	85.3	82.6	85.1
6 +	86.8	88.8	89.8	91.0	74.0	79.3	79.1	80.8
1984 ANNUAL AVERAGE								
TOTAL	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
1 PERSON	88.3	91.8	90.3	93.4	74.9	80.7	72.9	79.4
2 - 3	93.2	94.9	94.5	95.9	82.3	86.8	82.0	85.2
4 - 5	92.5	94.0	93.9	95.1	81.8	85.7	83.9	86.2
6 +	86.9	88.8	89.8	91.1	76.3	80.1	79.2	81.8
MARCH 85								
TOTAL	91.8	93.7	93.3	95.0	80.1	84.4	81.2	84.1
1 PERSON	88.9	92.3	91.1	94.0	73.7	80.4	75.0	82.4
2 - 3	93.4	94.8	94.5	95.7	83.8	86.8	82.4	84.8
4 - 5	92.2	93.7	93.6	94.8	81.9	86.2	84.5	83.4
6 +	87.4	89.4	90.7	92.0	75.0	79.0	84.0	85.5
JULY 85								
TOTAL	91.8	93.9	93.2	95.0	81.6	85.8	80.3	83.3
1 PERSON	87.0	90.7	89.3	92.6	73.9	80.2	67.8	74.3
2 - 3	93.5	95.1	94.5	95.9	85.1	88.4	83.8	85.9
4 - 5	95.1	96.0	95.7	96.4	91.9	93.5	86.5	87.6
6 +	91.6	92.2	94.4	94.5	82.2	85.0	84.5	84.5

TABLE 1.4 (Cont.)

NOVEMBER 85								
TOTAL	91.9	94.0	93.3	95.2	81.5	85.3	82.5	85.7
1 PERSON	86.8	90.6	89.3	92.8	73.3	78.8	73.0	78.8
2 - 3	93.7	95.2	94.7	95.9	85.9	88.6	84.7	87.5
4 - 5	95.2	96.3	96.3	97.0	89.1	91.3	89.0	90.1
6 +	91.9	93.8	93.5	94.2	86.6	90.9	88.3	88.3
1985 ANNUAL AVERAGE								
TOTAL	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
1 PERSON	87.6	91.2	89.9	93.1	73.6	79.8	71.9	78.5
2 - 3	93.5	95.0	94.5	95.8	84.9	87.9	83.6	86.0
4 - 5	94.2	95.3	95.2	96.1	87.6	90.4	85.6	87.0
6 +	90.3	91.8	92.8	93.6	81.3	84.9	85.6	86.1
MARCH 86								
TOTAL	92.2	93.9	93.6	95.0	82.0	85.8	81.5	83.9
1 PERSON	89.1	92.3	90.6	93.5	79.2	83.9	79.1	85.0
2 - 3	93.9	95.2	95.0	96.0	84.5	88.0	81.2	83.3
4 - 5	92.7	93.8	94.1	94.9	82.8	86.4	83.8	85.5
6 +	86.7	88.0	89.7	90.7	74.2	76.9	78.8	79.8
JULY 86								
TOTAL	92.2	94.0	93.7	95.2	81.5	85.7	81.1	83.6
1 PERSON	87.6	90.8	90.1	92.9	74.3	79.5	71.8	76.6
2 - 3	94.0	95.3	94.9	96.0	85.4	89.1	83.4	85.5
4 - 5	95.1	95.8	96.0	96.4	89.6	91.2	86.8	87.5
6 +	92.5	94.2	95.4	95.5	78.0	87.4	88.2	88.2
NOVEMBER 86								
TOTAL	92.4	94.4	93.8	95.5	81.3	86.1	81.6	84.7
1 PERSON	87.7	91.2	90.4	93.3	72.6	79.5	70.9	76.5
2 - 3	94.1	95.5	95.0	96.2	86.0	89.7	84.7	87.4
4 - 5	95.5	96.3	96.3	96.8	91.3	93.5	85.9	87.1
6 +	91.1	92.3	93.5	94.1	81.2	84.1	82.8	84.3
1986 ANNUAL AVERAGE								
TOTAL	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
1 PERSON	88.1	91.4	90.4	93.2	75.4	81.0	73.9	79.3
2 - 3	94.0	95.3	95.0	96.1	85.3	88.9	83.1	85.4
4 - 5	94.4	95.3	95.4	96.1	87.9	90.4	85.5	86.7
6 +	90.1	91.5	92.9	93.5	77.8	82.8	83.3	84.1
MARCH 87								
TOTAL	92.5	94.3	93.9	95.4	82.2	85.7	84.1	86.5
1 PERSON	89.5	92.8	91.3	94.2	77.6	82.9	80.3	84.5
2 - 3	93.9	95.2	95.1	96.2	84.0	86.6	84.4	86.8
4 - 5	93.5	94.7	94.5	95.5	85.2	88.4	86.6	88.8
6 +	88.0	89.9	90.5	91.6	78.6	82.6	80.4	80.7

TABLE 1.4 (Cont.)

JULY 87								
TOTAL	92.3	94.2	93.7	95.3	82.0	86.0	83.1	85.2
1 PERSON	89.6	92.8	91.3	94.2	78.8	83.5	79.5	83.1
2 - 3	93.9	95.2	95.1	96.2	84.0	87.5	85.6	87.3
4 - 5	92.5	94.1	93.8	95.1	82.6	86.9	81.5	83.4
6 +	88.3	90.0	90.7	91.9	78.8	82.5	83.3	84.9

TABLE 1.5

PERCENTAGE OF FAMILIES WITH A TELEPHONE BY FAMILY INCOME

	ALL RACES		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 83								
TOTAL	91.4	93.7	93.1	95.0	78.8	83.9	80.7	84.6
UNDER $5,000	71.7	78.4	75.7	81.9	62.7	70.4	58.3	64.6
$5,000 - $7,499	82.7	87.2	84.5	88.5	74.7	82.0	71.1	76.5
$7,500 - $9,999	88.2	90.9	89.6	92.2	80.5	83.9	72.6	77.9
$10,000 - $12,499	89.7	92.7	91.2	93.9	82.0	86.2	76.8	82.1
$12,500 - $14,999	92.1	94.6	93.4	95.2	82.5	90.7	89.8	91.7
$15,000 - $17,499	94.6	96.2	94.9	96.4	91.7	95.1	86.9	90.8
$17,500 - $19,999	95.7	97.4	96.1	97.7	91.4	95.0	88.4	91.5
$20,000 - $24,999	96.9	97.8	97.4	98.2	91.2	93.2	93.1	94.3
$25,000 - $29,999	98.0	98.9	98.2	99.0	96.1	97.2	98.3	99.0
$30,000 - $34,999	98.8	99.1	99.0	99.2	95.1	97.7	97.7	98.9
$35,000 - $39,999	99.0	99.5	99.1	99.5	98.4	98.4	92.1	98.2
$40,000 - $49,999	99.2	99.5	99.4	99.7	97.3	97.3	100.0	100.0
$50,000 - $74,999	99.4	99.7	99.5	99.7	98.5	100.0	99.6	100.0
$75,000 +	99.4	99.6	99.4	99.6	100.0	100.0	100.0	100.0
MARCH 84								
TOTAL	91.8	93.6	93.3	94.9	80.1	84.1	80.7	83.6
UNDER $5,000	71.4	77.0	74.7	79.8	62.8	69.7	53.6	60.2
$5,000 - $7,499	83.6	86.8	85.8	88.7	74.6	79.1	70.0	73.9
$7,500 - $9,999	85.8	89.3	87.7	90.8	75.9	81.1	72.2	76.3
$10,000 - $12,499	90.0	92.4	91.3	93.5	82.5	86.3	81.8	86.2
$12,500 - $14,999	92.7	94.3	93.6	95.2	84.6	86.7	88.5	89.7
$15,000 - $17,499	93.6	95.6	94.3	95.9	87.6	92.7	89.4	91.2
$17,500 - $19,999	95.3	96.3	95.4	96.3	94.8	96.4	87.1	88.0
$20,000 - $24,999	97.1	98.0	97.3	98.1	94.6	97.4	90.0	92.8
$25,000 - $29,999	98.1	98.6	98.5	98.9	93.5	94.8	96.2	97.6
$30,000 - $34,999	98.8	99.2	98.8	99.3	97.5	97.5	99.2	99.2
$35,000 - $39,999	99.4	99.6	99.5	99.7	96.3	97.2	100.0	100.0
$40,000 - $49,999	99.4	99.6	99.5	99.7	98.0	98.3	100.0	100.0
$50,000 - $74,999	99.2	99.6	99.3	99.7	97.0	97.0	100.0	100.0
$75,000 +	98.9	99.6	99.0	99.6	94.0	100.0	95.1	100.0
JULY 84								
TOTAL	91.6	93.8	93.2	95.0	80.5	85.3	81.1	84.6
UNDER $5,000	71.8	77.9	74.5	80.1	65.4	72.4	53.2	60.6
$5,000 - $7,499	82.6	86.9	84.8	88.8	74.4	80.3	71.7	76.1
$7,500 - $9,999	86.5	89.8	88.6	91.3	75.6	82.4	76.4	83.3
$10,000 - $12,499	89.7	92.7	90.7	93.3	83.4	88.9	80.7	84.1
$12,500 - $14,999	91.7	94.6	92.8	95.3	85.0	90.0	87.0	93.0
$15,000 - $17,499	94.1	95.9	94.5	96.3	89.4	91.1	87.6	88.0
$17,500 - $19,999	95.6	97.0	96.1	97.2	92.4	95.7	94.4	95.3
$20,000 - $24,999	96.8	97.8	97.2	98.0	92.9	95.7	96.7	97.3
$25,000 - $29,999	97.9	98.6	98.1	98.6	95.8	98.4	96.3	97.4
$30,000 - $34,999	98.8	99.1	98.8	99.2	97.7	97.7	100.0	100.0
$35,000 - $39,999	99.2	99.6	99.3	99.6	98.1	99.1	98.0	98.0
$40,000 - $49,999	99.3	99.5	99.5	99.7	96.1	96.1	100.0	100.0
$50,000 - $74,999	99.7	99.8	99.7	99.8	98.8	100.0	100.0	100.0
$75,000 +	99.1	99.6	99.1	99.6	100.0	100.0	100.0	100.0

TABLE 1.5 (Cont.)

NOVEMBER 84								
TOTAL	91.4	93.6	93.1	95.0	78.9	84.0	81.1	84.5
UNDER $5,000	70.3	77.5	74.4	81.3	61.4	69.4	58.5	66.1
$5,000 - $7,499	83.7	87.1	85.8	88.8	75.3	81.2	67.7	70.8
$7,500 - $9,999	87.0	89.8	88.7	90.9	80.2	84.7	76.3	79.5
$10,000 - $12,499	89.4	92.6	91.4	94.1	77.4	83.6	76.8	83.5
$12,500 - $14,999	92.0	94.2	92.5	94.5	86.6	91.6	86.5	88.9
$15,000 - $17,499	93.3	95.6	93.8	95.8	88.6	93.0	88.3	91.0
$17,500 - $19,999	94.3	95.9	95.2	96.5	88.0	91.0	91.5	95.2
$20,000 - $24,999	96.5	97.6	96.8	97.9	92.3	94.3	90.7	93.3
$25,000 - $29,999	98.4	99.1	98.6	99.2	96.0	98.3	96.7	96.7
$30,000 - $34,999	98.6	99.1	98.9	99.3	95.3	96.6	97.1	98.0
$35,000 - $39,999	99.1	99.4	99.1	99.4	98.7	98.7	96.5	97.6
$40,000 - $49,999	99.2	99.6	99.3	99.7	95.7	96.4	96.8	97.8
$50,000 - $74,999	99.5	99.9	99.6	99.9	98.3	98.3	100.0	100.0
$75,000 +	98.7	99.5	98.8	99.5	95.6	100.0	99.0	100.0
1984 ANNUAL AVERAGE								
TOTAL	91.6	93.7	93.2	94.9	79.8	84.5	80.9	84.3
UNDER $5,000	71.2	77.5	74.5	80.4	63.2	70.5	55.1	62.3
$5,000 - $7,499	83.3	86.9	85.5	88.7	74.8	80.2	69.8	73.6
$7,500 - $9,999	86.5	89.6	88.3	91.0	77.2	82.7	75.0	79.7
$10,000 - $12,499	89.7	92.6	91.1	93.6	81.1	86.3	79.7	84.6
$12,500 - $14,999	92.1	94.4	93.0	95.0	85.4	89.5	87.3	90.5
$15,000 - $17,499	93.7	95.7	94.2	96.0	88.5	92.2	88.4	90.0
$17,500 - $19,999	95.1	96.4	95.6	96.7	91.7	94.4	91.0	92.8
$20,000 - $24,999	96.8	97.8	97.1	98.0	93.3	95.8	92.5	94.5
$25,000 - $29,999	98.1	98.8	98.4	98.9	95.1	97.2	96.4	97.2
$30,000 - $34,999	98.7	99.1	98.8	99.3	96.8	97.2	98.8	99.1
$35,000 - $39,999	99.2	99.5	99.3	99.6	97.7	98.3	98.2	98.5
$40,000 - $49,999	99.3	99.6	99.4	99.7	96.6	96.9	98.9	99.3
$50,000 - $74,999	99.4	99.8	99.5	99.8	98.0	98.4	100.0	100.0
$75,000 +	98.9	99.6	98.9	99.6	96.5	100.0	98.0	100.0
MARCH 85								
TOTAL	91.8	93.7	93.3	95.0	80.1	84.4	81.2	84.1
UNDER $5,000	71.1	77.5	75.1	81.0	62.1	69.7	57.9	64.1
$5,000 - $7,499	82.5	86.1	85.0	88.1	72.0	77.6	65.9	70.8
$7,500 - $9,999	86.3	89.2	87.6	90.3	79.9	83.9	72.2	77.1
$10,000 - $12,499	89.5	92.2	90.7	93.1	81.5	86.0	85.1	86.6
$12,500 - $14,999	91.4	93.9	92.6	94.7	83.3	87.8	86.9	90.0
$15,000 - $17,499	93.7	95.8	94.6	96.3	88.1	92.0	85.8	88.5
$17,500 - $19,999	94.1	95.5	94.7	96.0	89.1	92.0	93.6	94.2
$20,000 - $24,999	96.2	97.2	96.4	97.3	93.3	95.5	88.8	91.0
$25,000 - $29,999	97.8	98.5	98.0	98.7	95.3	96.6	93.1	96.2
$30,000 - $34,999	98.6	99.0	98.8	99.0	97.3	98.3	97.8	97.8
$35,000 - $39,999	99.0	99.4	99.1	99.4	96.7	98.2	99.5	99.5
$40,000 - $49,999	98.9	99.2	99.0	99.3	97.0	98.0	97.4	97.4
$50,000 - $74,999	99.5	99.6	99.5	99.7	98.4	98.7	98.4	98.4
$75,000 +	99.5	99.6	99.5	99.6	100.0	100.0	100.0	100.0

TABLE 1.5 (Cont.)

JULY 85								
TOTAL	91.8	93.9	93.2	95.0	81.6	85.8	80.3	83.3
UNDER $5,000	72.0	77.9	74.9	80.7	64.5	71.1	60.7	65.8
$5,000 - $7,499	83.2	87.0	84.6	87.9	76.7	83.2	67.9	71.2
$7,500 - $9,999	86.9	90.8	87.7	91.1	82.3	88.1	76.0	78.1
$10,000 - $12,499	89.7	92.5	91.1	93.6	82.1	86.8	76.7	79.5
$12,500 - $14,999	91.0	93.6	92.6	94.9	80.2	84.6	79.2	83.2
$15,000 - $17,499	93.4	95.5	94.2	96.2	88.6	91.2	86.1	88.4
$17,500 - $19,999	94.5	96.1	94.8	96.5	91.9	93.0	87.1	89.8
$20,000 - $24,999	96.7	97.8	96.8	98.0	94.7	96.5	92.9	95.7
$25,000 - $29,999	97.1	98.1	97.4	98.2	94.4	97.0	91.5	95.2
$30,000 - $34,999	98.4	98.9	98.5	99.0	96.5	97.9	96.9	96.9
$35,000 - $39,999	98.7	99.2	98.8	99.4	98.4	98.4	95.8	98.6
$40,000 - $49,999	99.3	99.6	99.3	99.6	99.3	99.3	98.8	98.8
$50,000 - $74,999	99.3	99.7	99.4	99.7	97.7	98.8	100.0	100.0
$75,000 +	99.0	99.4	99.0	99.4	100.0	100.0	95.6	95.6
NOVEMBER 85								
TOTAL	91.9	94.0	93.3	95.2	81.5	85.3	82.5	85.7
UNDER $5,000	72.7	79.0	75.9	82.2	65.2	71.1	66.4	71.0
$5,000 - $7,499	82.5	86.3	84.7	88.2	73.3	78.6	65.9	71.9
$7,500 - $9,999	87.1	89.9	88.9	91.4	78.7	82.9	76.8	82.8
$10,000 - $12,499	89.6	92.0	90.5	93.1	83.3	85.2	79.3	82.4
$12,500 - $14,999	90.6	93.6	91.6	93.9	84.7	90.9	82.4	84.2
$15,000 - $17,499	93.1	95.5	93.8	96.1	88.0	92.1	85.3	89.0
$17,500 - $19,999	95.4	96.9	95.8	97.3	93.5	95.3	90.7	94.4
$20,000 - $24,999	96.0	97.4	96.1	97.5	95.1	96.8	92.3	94.4
$25,000 - $29,999	98.0	98.8	98.1	98.8	97.5	98.3	94.3	96.3
$30,000 - $34,999	98.7	99.1	98.8	99.2	98.2	98.9	97.3	97.3
$35,000 - $39,999	98.6	99.1	98.8	99.3	95.5	96.7	99.2	100.0
$40,000 - $49,999	99.0	99.3	99.1	99.4	97.0	97.3	96.3	98.3
$50,000 - $74,999	99.2	99.7	99.3	99.7	97.5	98.8	100.0	100.0
$75,000 +	99.2	99.3	99.3	99.4	92.7	92.7	100.0	100.0
1985 ANNUAL AVERAGE								
TOTAL	91.8	93.9	93.3	95.0	81.1	85.2	81.3	84.4
UNDER $5,000	71.9	78.1	75.3	81.3	63.9	70.6	61.6	67.0
$5,000 - $7,499	82.7	86.5	84.8	88.1	74.0	79.8	66.6	71.3
$7,500 - $9,999	86.8	90.0	88.1	90.9	80.3	85.0	75.0	79.4
$10,000 - $12,499	89.6	92.2	90.8	93.2	82.3	86.0	80.4	82.8
$12,500 - $14,999	91.0	93.7	92.2	94.5	82.7	87.8	82.8	85.8
$15,000 - $17,499	93.4	95.6	94.2	96.2	88.2	91.8	85.7	88.6
$17,500 - $19,999	94.7	96.2	95.1	96.6	91.5	93.4	90.4	92.8
$20,000 - $24,999	96.3	97.5	96.5	97.6	94.4	96.3	91.3	93.7
$25,000 - $29,999	97.6	98.5	97.8	98.6	95.8	97.3	93.0	95.9
$30,000 - $34,999	98.6	99.0	98.7	99.1	97.3	98.4	97.3	97.3
$35,000 - $39,999	98.8	99.2	98.9	99.4	96.9	97.8	98.2	99.4
$40,000 - $49,999	99.1	99.4	99.1	99.4	97.8	98.2	97.5	98.2
$50,000 - $74,999	99.3	99.7	99.4	99.7	97.9	98.8	99.5	99.5
$75,000 +	99.2	99.5	99.2	99.5	97.6	97.6	98.5	98.5

TABLE 1.5 (Cont.)

MARCH 86								
TOTAL	92.2	93.9	93.6	95.0	82.0	85.8	81.5	83.9
UNDER $5,000	71.1	76.9	74.0	79.3	63.8	71.1	56.7	61.3
$5,000 - $7,499	82.7	85.8	85.1	87.8	72.0	76.9	68.7	72.7
$7,500 - $9,999	87.6	90.0	88.8	90.8	82.1	86.4	72.1	73.4
$10,000 - $12,499	89.5	91.8	90.6	92.7	82.1	86.0	78.5	81.0
$12,500 - $14,999	91.3	94.1	92.0	94.7	87.6	90.9	84.6	90.0
$15,000 - $17,499	92.9	94.5	93.6	95.2	88.0	91.0	84.9	89.1
$17,500 - $19,999	94.6	96.0	95.2	96.4	90.1	92.8	86.1	88.8
$20,000 - $24,999	96.3	97.1	96.7	97.4	93.6	95.0	92.3	93.5
$25,000 - $29,999	97.2	98.0	97.7	98.3	91.6	94.0	92.5	92.5
$30,000 - $34,999	98.3	98.6	98.4	98.7	97.5	97.8	96.9	97.7
$35,000 - $39,999	98.9	99.2	99.1	99.3	98.1	98.1	100.0	100.0
$40,000 - $49,999	98.9	99.3	99.0	99.3	98.3	98.3	97.5	97.5
$50,000 - $74,999	99.5	99.7	99.5	99.7	99.3	99.3	100.0	100.0
$75,000 +	99.3	99.4	99.3	99.4	100.0	100.0	98.5	100.0
JULY 86								
TOTAL	92.2	94.0	93.7	95.2	81.5	85.7	81.1	83.6
UNDER $5,000	71.5	77.0	74.4	79.7	65.4	71.2	57.1	63.8
$5,000 - $7,499	82.6	86.1	85.0	87.9	73.8	79.2	64.9	68.6
$7,500 - $9,999	86.3	90.1	87.8	90.8	77.4	85.9	72.9	75.4
$10,000 - $12,499	89.6	92.4	90.8	93.2	82.9	87.3	80.9	81.9
$12,500 - $14,999	91.5	93.9	92.4	94.5	83.4	88.8	87.1	87.7
$15,000 - $17,499	93.1	95.2	94.3	95.8	84.2	90.6	86.9	88.9
$17,500 - $19,999	95.5	96.6	95.8	97.0	93.2	94.3	89.4	91.9
$20,000 - $24,999	96.6	97.6	97.0	98.0	92.1	94.0	94.5	95.0
$25,000 - $29,999	97.7	98.4	98.0	98.7	95.7	96.6	92.2	95.0
$30,000 - $34,999	98.3	98.8	98.5	99.0	96.6	97.8	98.0	98.7
$35,000 - $39,999	99.2	99.3	99.2	99.4	98.4	98.4	98.6	98.6
$40,000 - $49,999	99.1	99.4	99.1	99.4	99.0	99.0	98.1	98.9
$50,000 - $74,999	99.6	99.8	99.6	99.8	100.0	100.0	98.2	99.2
$75,000 +	99.6	99.8	99.7	99.8	95.5	100.0	100.0	100.0
NOVEMBER 86								
TOTAL	92.4	94.4	93.8	95.5	81.3	86.1	81.6	84.7
UNDER $5,000	72.3	78.3	76.3	81.3	62.6	70.9	58.9	63.7
$5,000 - $7,499	83.9	87.7	85.6	89.0	77.0	82.7	70.8	75.0
$7,500 - $9,999	86.8	90.4	88.7	91.6	76.3	83.2	73.8	77.7
$10,000 - $12,499	89.6	92.1	90.6	93.0	82.9	85.9	81.4	84.9
$12,500 - $14,999	90.8	93.6	91.3	94.0	88.1	91.3	80.0	85.7
$15,000 - $17,499	93.4	95.6	94.9	96.1	83.7	93.3	87.2	88.8
$17,500 - $19,999	94.6	96.4	94.9	96.6	93.4	95.6	86.0	89.7
$20,000 - $24,999	96.5	97.9	96.9	98.1	92.5	95.0	92.1	93.8
$25,000 - $29,999	98.2	98.9	98.4	99.0	96.2	97.1	97.0	98.1
$30,000 - $34,999	98.7	99.1	99.0	99.3	96.2	97.1	97.7	98.9
$35,000 - $39,999	98.6	99.3	98.8	99.4	96.5	97.2	95.8	99.2
$40,000 - $49,999	99.2	99.5	99.3	99.6	97.4	97.4	100.0	100.0
$50,000 - $74,999	99.5	99.7	99.6	99.8	99.0	99.0	100.0	100.0
$75,000 +	99.3	99.7	99.3	99.7	98.6	98.6	93.9	100.0

TABLE 1.5 (Cont.)

1986 ANNUAL AVERAGE								
TOTAL	92.3	94.1	93.7	95.2	81.6	85.9	81.4	84.1
UNDER $5,000	71.6	77.4	74.9	80.1	63.9	71.0	57.5	62.9
$5,000 - $7,499	83.1	86.5	85.2	88.2	74.3	79.6	68.1	-72.1
$7,500 - $9,999	86.9	90.2	88.4	91.1	78.6	85.2	72.9	-75.8
$10,000 - $12,499	89.6	92.1	90.7	93.0	82.6	86.4	80.3	82.6
$12,500 - $14,999	91.2	93.8	91.9	94.4	86.4	90.3	83.9	87.8
$15,000 - $17,499	93.1	95.1	94.3	95.7	85.3	91.6	86.3	88.9
$17,500 - $19,999	94.9	96.3	95.3	96.7	92.2	94.2	87.2	90.1
$20,000 - $24,999	96.5	97.5	96.9	97.9	92.8	94.6	93.0	94.1
$25,000 - $29,999	97.7	98.4	98.0	98.7	94.5	95.9	93.9	95.2
$30,000 - $34,999	98.4	98.9	98.6	99.0	96.7	97.5	97.5	98.4
$35,000 - $39,999	98.9	99.3	99.0	99.4	97.6	97.9	98.1	-99.3
$40,000 - $49,999	99.1	99.4	99.1	99.4	98.2	98.2	98.5	-98.8
$50,000 - $74,999	99.5	99.8	99.6	99.8	99.4	99.4	99.4	99.7
$75,000 +	99.4	99.6	99.4	99.6	98.0	99.5	97.5	100.0
MARCH 87								
TOTAL	92.5	94.3	93.9	95.4	82.2	85.7	84.1	86.5
JNDER $5,000	71.9	78.0	75.1	80.9	63.8	70.5	63.8	67.6
$5,000 - $7,499	83.6	86.7	85.3	87.9	76.8	81.9	69.5	73.0
$7,500 - $9,999	87.7	89.9	88.5	90.6	83.6	86.2	78.1	81.0
$10,000 - $12,499	89.4	92.0	90.5	93.1	81.4	85.2	78.9	82.1
$12,500 - $14,999	90.5	92.9	91.7	93.9	84.2	86.3	83.6	85.0
$15,000 - $17,499	92.4	94.7	93.3	95.6	85.8	88.6	83.7	88.9
$17,500 - $19,999	94.2	95.9	95.0	96.3	88.1	92.4	91.0	93.0
$20,000 - $24,999	96.6	97.4	97.1	97.9	93.5	94.6	94.1	95.1
$25,000 - $29,999	97.3	98.4	97.8	98.7	92.8	95.0	96.6	97.8
$30,000 - $34,999	98.1	98.7	98.3	98.9	96.0	96.4	96.5	97.5
$35,000 - $39,999	98.6	99.0	98.9	99.1	94.7	97.1	96.9	96.9
$40,000 - $49,999	99.4	99.7	99.4	99.7	99.6	99.6	99.6	99.9
$50,000 - $74,999	99.4	99.6	99.5	99.7	98.1	98.8	98.6	99.5
$75,000 +	99.7	99.8	99.7	99.8	97.2	100.0	100.0	100.0
JULY 87								
TOTAL	92.3	94.2	93.7	95.3	82.0	86.0	83.1	85.2
JNDER $5,000	70.7	75.9	74.1	78.7	63.8	70.5	58.0	62.7
$5,000 - $7,499	83.6	87.0	85.8	88.8	75.5	80.7	71.6	73.1
$7,500 - $9,999	86.5	89.6	88.1	90.8	78.8	83.7	76.6	79.0
$10,000 - $12,499	89.6	92.6	90.6	93.4	82.9	87.8	84.2	86.6
$12,500 - $14,999	91.2	93.7	92.3	94.4	83.6	88.8	86.3	88.4
$15,000 - $17,499	92.2	94.4	92.7	94.6	89.0	93.2	87.0	88.9
$17,500 - $19,999	94.8	96.2	95.8	97.0	88.1	91.0	87.7	87.7
$20,000 - $24,999	96.0	97.4	96.4	97.8	92.0	93.9	93.4	95.6
$25,000 - $29,999	97.6	98.4	98.1	98.8	93.7	95.2	98.7	98.7
$30,000 - $34,999	98.0	98.9	98.1	98.8	97.5	98.9	96.9	98.2
$35,000 - $39,999	98.8	99.2	98.8	99.2	97.8	98.9	96.8	96.8
$40,000 - $49,999	99.3	99.6	99.4	99.7	98.3	98.6	100.0	100.0
$50,000 - $74,999	99.4	99.8	99.4	99.9	99.4	99.4	97.6	99.1
$75,000 +	99.4	99.8	99.4	99.7	100.0	100.0	97.2	100.0

TABLE 1.6

PERCENTAGE OF PERSONS WITH A TELEPHONE BY LABOR FORCE STATUS

	TOTAL		WHITE		BLACK		HISPANIC ORIGIN	
	Unit	Avail	Unit	Avail	Unit	Avail	Unit	Avail
NOVEMBER 83								
TOTAL CNP	92.8	94.5	94.1	95.6	82.7	86.6	83.4	86.5
EMPLOYED	94.1	95.9	95.0	96.6	85.7	89.8	86.3	89.6
UNEMPLOYED	82.5	86.5	84.8	88.1	74.6	81.2	76.6	79.9
NOT IN LABOR FORCE	92.1	93.4	93.8	94.9	80.8	83.7	80.4	83.0
MARCH 84								
TOTAL CNP	93.0	94.5	94.2	95.5	83.5	86.7	83.3	85.7
EMPLOYED	94.5	95.9	95.3	96.5	87.6	90.8	87.1	89.3
UNEMPLOYED	82.0	85.7	83.8	87.1	75.5	80.3	73.3	76.1
NOT IN LABOR FORCE	92.0	93.3	93.8	94.9	80.2	82.7	79.6	82.1
JULY 84								
TOTAL CNP	92.8	94.5	94.1	95.5	83.1	87.1	82.7	85.7
EMPLOYED	93.9	95.6	94.9	96.3	85.6	89.6	84.8	87.8
UNEMPLOYED	81.2	84.8	83.7	86.6	73.9	79.7	74.0	78.2
NOT IN LABOR FORCE	92.4	93.8	93.9	95.1	82.1	85.7	80.8	83.5
NOVEMBER 84								
TOTAL CNP	92.6	94.4	94.1	95.5	82.0	86.2	82.9	85.5
EMPLOYED	93.8	95.6	94.8	96.4	84.7	89.1	85.1	87.8
UNEMPLOYED	81.8	85.6	84.3	87.3	74.7	80.8	74.7	77.8
NOT IN LABOR FORCE	92.0	93.4	93.8	95.0	79.8	83.2	80.6	82.9
1984 ANNUAL AVERAGE								
TOTAL CNP	92.8	94.5	94.1	95.5	82.9	86.7	83.0	85.6
EMPLOYED	94.0	95.7	95.0	96.4	85.9	89.8	85.7	88.3
UNEMPLOYED	81.7	85.3	84.0	87.0	74.7	80.2	74.0	77.4
NOT IN LABOR FORCE	92.1	93.5	93.8	95.0	80.7	83.9	80.3	82.8
MARCH 85								
TOTAL CNP	93.0	94.5	94.2	95.5	83.5	86.8	83.3	85.4
EMPLOYED	94.3	95.8	95.1	96.4	87.1	90.2	85.1	87.4
UNEMPLOYED	82.9	86.0	84.6	87.1	76.1	81.3	72.6	75.1
NOT IN LABOR FORCE	92.1	93.5	93.8	94.9	80.2	83.4	82.5	84.3
JULY 85								
TOTAL CNP	92.9	94.6	94.0	95.5	84.5	87.9	82.9	85.0
EMPLOYED	94.0	95.8	94.8	96.4	87.4	90.6	84.5	86.5
UNEMPLOYED	83.6	87.3	85.5	88.7	78.0	83.0	77.9	80.7
NOT IN LABOR FORCE	92.2	93.6	93.6	94.8	82.0	85.1	81.1	83.5

TABLE 1.6 (Cont.)

NOVEMBER 85								
TOTAL CNP	93.1	94.7	94.3	95.7	84.4	87.4	84.2	86.9
EMPLOYED	94.4	96.0	95.2	96.6	87.5	90.5	85.8	88.7
UNEMPLOYED	80.5	84.3	82.4	86.0	74.9	79.0	70.9	74.9
NOT IN LABOR FORCE	92.3	93.7	93.9	95.1	82.2	85.1	84.2	86.0
1985 ANNUAL AVERAGE								
TOTAL CNP	93.0	94.6	94.2	95.6	84.1	87.4	83.5	85.8
EMPLOYED	94.2	95.8	95.0	96.5	87.3	90.4	85.1	87.5
UNEMPLOYED	82.3	85.8	84.2	87.3	76.3	81.1	73.8	76.9
NOT IN LABOR FORCE	92.2	93.6	93.8	94.9	81.5	84.5	82.6	84.6
MARCH 86								
TOTAL CNP	93.4	94.7	94.5	95.6	84.9	87.8	83.4	85.1
EMPLOYED	94.6	95.8	95.4	96.4	88.3	91.0	85.1	86.9
UNEMPLOYED	82.7	86.1	85.1	88.0	74.6	80.2	73.6	75.3
NOT IN LABOR FORCE	92.7	93.8	94.2	95.1	82.4	85.0	82.5	84.1
JULY 86								
TOTAL CNP	93.4	94.8	94.6	95.7	84.4	87.9	83.2	85.1
EMPLOYED	94.8	96.1	95.6	96.8	87.3	90.9	85.4	87.3
UNEMPLOYED	82.2	85.9	84.1	87.4	75.7	80.8	79.0	80.1
NOT IN LABOR FORCE	92.3	93.6	93.8	94.8	82.3	85.2	79.9	82.2
NOVEMBER 86								
TOTAL CNP	93.4	95.1	94.6	95.9	84.5	88.5	83.4	86.1
EMPLOYED	94.6	96.2	95.4	96.7	87.7	91.4	85.4	87.9
UNEMPLOYED	81.9	86.0	84.2	87.6	74.1	81.0	73.3	79.2
NOT IN LABOR FORCE	92.8	94.2	94.3	95.4	82.3	85.9	81.7	84.0
1986 ANNUAL AVERAGE								
TOTAL CNP	93.4	94.8	94.6	95.8	84.6	88.1	83.3	85.4
EMPLOYED	94.7	96.1	95.5	96.6	87.7	91.1	85.3	87.4
UNEMPLOYED	82.3	86.0	84.5	87.6	74.8	80.7	75.3	78.2
NOT IN LABOR FORCE	92.6	93.9	94.1	95.1	82.3	85.4	81.4	83.4
MARCH 87								
TOTAL CNP	93.6	95.0	94.8	95.9	85.0	87.9	85.5	87.3
EMPLOYED	94.8	96.1	95.6	96.7	88.6	91.1	86.7	88.6
UNEMPLOYED	84.1	87.1	86.7	89.3	75.5	80.1	82.8	84.9
NOT IN LABOR FORCE	92.8	94.0	94.3	95.2	82.0	85.2	83.9	85.5

TABLE 1.6 (Cont.)

JULY 87								
TOTAL CNP	93.4	94.9	94.6	95.8	85.2	88.4	84.5	86.3
EMPLOYED	94.4	96.0	95.3	96.6	87.4	90.7	86.4	88.2
UNEMPLOYED	83.9	87.3	85.9	89.1	77.5	82.1	77.1	80.5
NOT IN LABOR FORCE	92.7	93.7	94.1	94.9	83.3	86.1	82.1	83.6

CHART 1.2

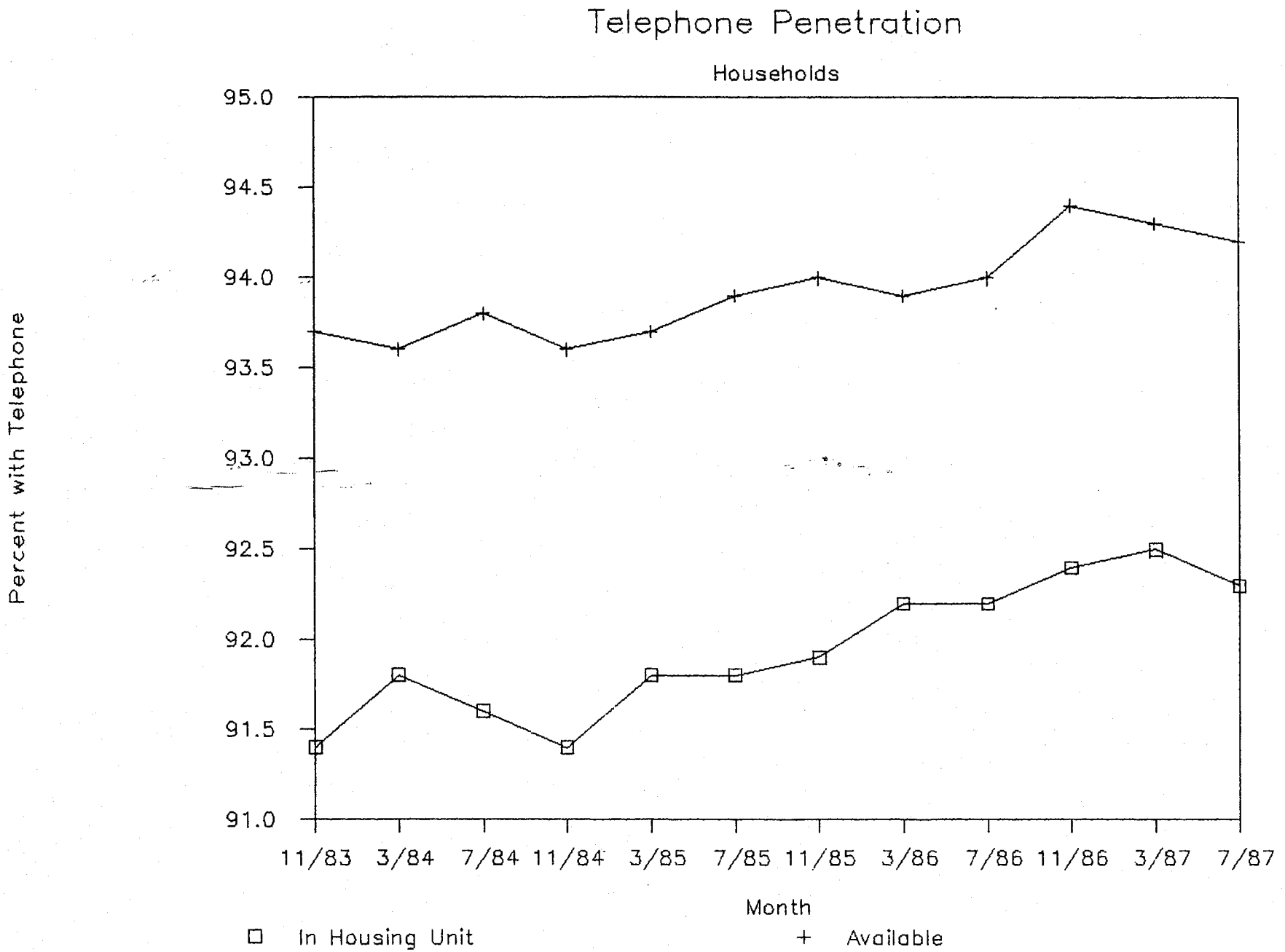
Telephone Penetration
Households
Percent with Telephone
95.0
94.5
94.0
93.5
93.0
92.5
92.0
91.5
91.0
11/83
3/84
7/84
11/84
3/85
7/85
11/85
3/86
7/86
11/86
3/87
7/87
Month
In Housing Unit
Available

TABLE 1.7

Critical Values for Determining Significant Differences for States

State	In Unit	Available
Total US	0.5%	0.5%
Alabama	3.6	3.4
Alaska	5.2	4.5
Arizona	4.5	4.3
Arkansas	5.8	4.8
California	1.5	1.4
Colorado	3.3	3.0
Connecticut	2.9	1.8
Delaware	3.1	2.7
Dist. of Columbia	3.8	2.8
Florida	2.8	2.7
Georgia	4.9	4.5
Hawaii	2.7	2.0
Idaho	4.1	3.4
Illinois	2.0	1.8
Indiana	3.3	2.7
Iowa	3.0	2.3
Kansas	2.5	2.3
Kentucky	5.2	4.8
Louisiana	4.3	3.8
Maine	3.8	3.3
Maryland	3.2	2.7
Massachusetts	2.5	2.3
Michigan	2.6	2.2
Minnesota	2.6	2.4
Mississippi	4.9	4.5
Missouri	3.6	2.9
Montana	5.2	4.3
Nebraska	3.3	3.0
Nevada	5.0	4.3
New Hampshire	4.0	3.3
New Jersey	2.4	2.1
New Mexico	5.8	4.5
New York	2.1	1.9
North Carolina	3.9	3.4
North Dakota	3.8	3.5
Ohio	2.2	1.9
Oklahoma	3.9	3.6

TABLE 1.7 (cont.)

State	In Unit	Available
Oregon	3.5	3.0
Pennsylvania	1.6	1.3
Rhode Island	3.0	2.5
South Carolina	6.1	5.3
South Dakota	3.6	3.5
Tennessee	4.8	4.3
Texas	2.6	2.3
Utah	4.6	4.5
Vermont	5.3	4.6
Virginia	4.0	3.4
Washington	4.0	3.9
West Virginia	4.5	3.9
Wisconsin	3.1	3.0
Wyoming	4.6	3.9

TABLE 1.8

Critical Values for Determining Significant Differences for Age and Race

	ALL RACES		WHITE		BLACK		HISPANIC	
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
Total Households	0.5%	0.5%	0.5%	0.5%	2.2%	1.9%	4.8%	4.4%
16 - 24 Yrs old	1.6%	1.4%	1.6%	1.5%	5.4%	5.4%	10.3%	9.7%
25 - 54 Yrs old	0.7%	0.6%	0.7%	0.6%	2.7%	2.4%	5.9%	5.4%
55 - 59 Yrs old	2.1%	1.8%	2.1%	1.8%	8.9%	7.8%	20.7%	18.9%
60 - 64 Yrs old	2.1%	1.8%	2.1%	1.8%	9.5%	8.1%	24.5%	22.0%
65 - 69 Yrs old	2.3%	2.0%	2.3%	1.9%	10.3%	8.9%	30.6%	27.6%
70 - 99 Yrs old	1.6%	1.4%	1.6%	1.3%	7.8%	6.7%	22.5%	20.5%

TABLE 1.9

Critical Values for Determining Significant Differences for Household Size

	ALL RACES		WHITE		BLACK		HISPANIC	
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
Total	0.5%	0.5%	0.5%	0.5%	2.2%	1.9%	4.8%	4.4%
1 Person	1.1%	0.9%	1.1%	1.0%	3.9%	3.6%	11.1%	10.5%
2 - 3	0.8%	0.7%	0.8%	0.7%	3.5%	3.0%	7.5%	6.8%
4 - 5	1.2%	1.0%	1.2%	1.0%	4.8%	4.2%	9.0%	8.1%
6 +	2.6%	2.2%	2.9%	2.5%	7.8%	7.0%	14.4%	12.8%

TABLE 1.10

Critical Values for Determining Significant Differences for Income

	ALL RACES		WHITE		BLACK		HISPANIC	
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
Total	0.5%	0.5%	0.5%	0.5%	2.2%	1.9%	4.8%	4.4%
Under $5,000	1.3%	1.2%	1.5%	1.4%	3.4%	3.2%	8.6%	8.3%
$5,000 - $7,499	1.7%	1.5%	1.8%	1.6%	5.5%	4.9%	11.3%	10.6%
$7,500 - $9,999	2.0%	1.7%	2.0%	1.8%	7.2%	6.6%	14.0%	12.9%
$10,000 - $12,499	1.9%	1.6%	1.9%	1.7%	7.3%	6.4%	16.2%	14.8%
$12,500 - $14,999	2.1%	1.8%	2.1%	1.8%	8.8%	7.8%	18.4%	17.1%
$15,000 - $17,499	2.2%	1.9%	2.2%	2.0%	9.0%	8.2%	19.7%	18.0%
$17,500 - $19,999	2.3%	2.0%	2.3%	2.0%	10.8%	9.3%	20.0%	18.3%
$20,000 - $24,999	1.7%	1.5%	1.7%	1.5%	9.0%	7.7%	16.9%	15.1%
$25,000 - $29,999	1.9%	1.7%	1.9%	1.6%	10.9%	9.4%	21.8%	19.6%
$30,000 - $34,999	2.0%	1.8%	2.0%	1.7%	12.6%	10.7%	24.9%	22.2%
$35,000 - $39,999	2.4%	2.1%	2.4%	2.0%	15.6%	13.2%	28.9%	25.9%
$40,000 - $49,999	2.2%	1.9%	2.1%	1.8%	15.2%	12.8%	29.0%	25.7%
$50,000 - $74,999	2.3%	1.9%	2.2%	1.9%	16.4%	13.9%	32.3%	28.7%
$75,000 +	3.5%	3.0%	3.3%	2.8%	44.3%	38.0%	53.9%	49.0%

TABLE 1.11

Critical Values for Determining Significant Differences for Employment Status

	ALL RACES		WHITE		BLACK		HISPANIC	
	In Unit	Available	In Unit	Available	In Unit	Available	In Unit	Available
Total CNP	0.8%	0.7%	0.8%	0.7%	3.2%	2.8%	7.3%	6.6%
Employed	1.0%	0.9%	1.0%	0.9%	4.0%	3.5%	9.8%	8.9%
Unemployed	3.1%	2.8%	3.4%	3.0%	9.2%	8.4%	24.9%	22.9%
Not in Labor Force	1.3%	1.1%	1.3%	1.1%	5.1%	4.4%	11.9%	10.8%

2. Lifeline Assistance Plans

An important adjunct to the implementation of subscriber line charges is the provision of lifeline assistance to ensure that subscribers do not drop off the telephone network, and additionally to encourage new subscribers to obtain service. This section discusses the three federal lifeline plans and the various state programs implemented in response to those federal programs to date. Pursuant to the reporting requirements adopted in the monitoring order, we expect to have data on these programs available in future monitoring reports.

The Federal Communications Commission, in conjunction with the states and local telephone companies, sponsors lifeline programs. Lifeline benefits may take several forms, including a reduction on monthly charges, a special service at a low monthly rate, or a reduction of installation charges. State programs can be certified and receive lifeline funds if benefits are only available to persons who pass a "means" test such as eligibility for food stamps or Medicaid. A second requirement for certification is that each applicant's eligibility for benefits be verified. The state has wide latitude in selecting means tests, shaping the benefits, and determining geographic availability.

The FCC has made available the following three federal lifeline assistance plans:

Plan 1- On December 19, 1984, the FCC adopted an optional plan which allows a reduction in fixed charges for telephone service equal to the federal subscriber line charge (SLC) for low income households satisfying a state determined means test subject to verification. This is accomplished by joint federal and state action, pursuant to which there is a 50% reduction in the SLC and a matching reduction provided by the state. The assistance would be available for a single telephone line for the principal residence of eligible households.

Plan 2- On December 10, 1985, the FCC adopted broader lifeline assistance measures for low income households providing for a reduction in fixed charges for telephone service of twice the size of the SLC. This reduction would be achieved through a waiver of the full federal SLC (including future increases in the SLC) up to the amount matched by state assistance, provided that the state plans meet the following federal requirements:

a) means test -- highly targeted assistance plan which focuses on those individuals on limited incomes;

b) subject to verification -- procedures must be established which routinely check to ensure that those individuals eligible under the plans are the individuals benefitting under the plan;

c) availability -- for a single telephone line for the principal residence of eligible households.

The state matching contribution can be in the form of reduced local telephone service rates, reduced connection charges or deposit requirements. No restrictions are imposed on the source of funding for the state assistance. The federal assistance is to be funded by the carriers through the interstate CCLC.

Plan 3- On April 16, 1987, the FCC adopted a two part plan, Link-Up America, to connect low income households to the telephone network. Under the first part, sufficient federal assistance will be provided to pay one-half of the connection charges, up to a $30.00 amount, assessed for commencing telephone service. Under the second part, when a local exchange company (LEC) offers a deferred payment plan not to exceed 12 months for service commencement charges and it does not assess the subscribers any interest charges, federal assistance will be available to that LEC to cover the interest costs on an amount up to $200.

Connection assistance will be available for one telephone line per household, at a subscriber's principal place of residence. Before receiving federal assistance, a plan should meet the following criteria to ensure that the assistance is properly targeted: 1) the customer requesting assistance has lived at an address or addresses where there has been no telephone service for at least three months immediately prior to the request for assistance; 2) assistance is available, at most, once every two years; 3) the customer cannot be a dependent (as defined by the federal income tax code) under the age of 60; and 4) the customer must meet state-determined income criteria. If the first two criteria are verified using LEC records, the final two criteria may be self-certified by the applicant. If a state determines, however, that verification of criteria #1 and #2 is administratively or economically impractical for a LEC because the necessary information must be provided by a LEC or agency outside the state, or because of other specified circumstances, then self-certification of these criteria will be allowed and criteria #3 and #4 must be verified by the state or LEC.

States are encouraged, but not required, to match the remaining half of the connection charges. The states and LECs are encouraged to develop deferred payment plans for service commencement charges as well as provide reductions in, or waivers of, security deposit requirements for low income customers who do not have poor credit histories.

Federal assistance is to be funded through the interstate CCLC until April 1989, at which time all three lifeline assistance plans will be funded through direct billing of the interexchange carriers (IXCs) by NECA. IXCs will be responsible for paying lifeline assistance if they have at least 1) 1% of the "1+" or "presubscribed" common lines presubscribed to interexchange carriers in all study areas, or 2) 5% of the presubscribed lines in any study area and a minimum of 1,000 presubscribed lines in that study area.

Two states, California and New York, have been offering lifeline assistance plan pursuant to Plan 1 since January 1985. At this time, six jurisdictions - Maine, Montana, New York, Rhode Island, West Virginia and the District of Columbia - have been certified to provide lifeline connection assistance under the newest plan, Plan 3, which became effective July 1, 1987.

Eighteen states and the District of Columbia have been certified to offer lifeline assistance pursuant to Plan 2. A brief summary of the Plan 2 programs being offered in each of these states follows:

-Arizona: established a three year telephone Assistance Pilot Program that targets individuals at or below 150% of federal poverty guidelines. State assistance includes coverage of all costs of flat-rate unlimited local calling, wire and line maintenance fee, and a one-time upgrade of service (not to exceed a value of $27.50). A telephone rental for a monthly fee of $2.25 is also offered. All applicants are state interviewed and certified annually. The program was approved on November 14, 1986.

-Arkansas: established a Lifeline Measured Rate service available to residential ratepayers who qualify under the federal food stamp program. The local program has been in effect since September 1984 and provides an estimated average benefit of $4.10 per month per subscriber, independent of the waiver of the subscriber line charge.

-Colorado: enacted legislation effective September 1, 1986, to establish the Colorado low-income Telephone Assistance Program through revised state statutes. The law provides single line dial-tone and flat-rate charge in a principal residence at the equivalent of a twenty-five percent discount. Eligible

subscribers are state social service recipients of financial assistance programs for the elderly and low-income disabled persons who qualify for supplemental security income under federal programs.

-District of Columbia: established an Economy II service available to residential ratepayers who are over 65 years of age and qualify under federal statutory criteria for participation in the Low Income Home Energy Assistance Programs (LIHEAP) or the Complementary Energy Assistance Program in the District. The local program provides an average benefit of $4.81 per month per subscriber, independent of the waiver of the subscriber line charge. The program was approved on March 18, 1986.

-Hawaii: enacted legislation on April 30, 1986. The rate is $2.70 less than the regular individual residence rates for eligible participants 60 years of age or older with total annual household income of $10,000 or less. On October 15, 1986, the Hawaiian Telephone Company filed tariffs with the Public Utilities Commission setting verification and income eligibility standards, providing installation of a single residence access line and associated equipment, a 50% reduction in service connection charges, elimination of nonrecurring charges and three month payment leniency on reduced connection charges.

-Idaho: legislation passed in 1987 (H.B. No. 298) provides for Telecommunications Service Assistance which requires that recipients meet both age and income means tests. Applicants must be head of household, sixty years of age or older, and participants in LIHEAP (130% of the federal poverty guidelines). The Idaho Public Utilities Commission will set a uniform monthly surcharge on each business and residential access line to reimburse telephone service providers. The program matches the subscriber line charge, and was approved on July 24, 1987.

-Maine: established a Lifeline Service Program to eligible residence households receiving AFDC, SSI, Medicaid, Food Stamps, or Energy Assistance. The program provides reduced service and equipment charges for installation, and a reduction in the monthly rate of basic exchange service. A monthly surcharge applies to each switched access line for funding the program. Maine estimates 22,250 participating subscribers (40% of qualified) and forecasts an annual installation program of 8,600. The program was approved on August 11, 1987.

-Maryland: established a Tel-Life service available to residential ratepayers who qualify under the state general public assistance program or under the federal Social Security Act. The Public Service Commission estimates that 39,750 people will qualify under the program and that the average benefit will be $4.40 per month per subscriber, independent of additional discount available on initial installation and connection services and of the waiver of the subscriber line charge. The program was approved May 22, 1986.

-Montana: established a program based on criteria in Montana S.B. No. 257. Assistance will be verified by the Montana Department of Social and Rehabilitation Services for subscribers receiving Medicaid (26,000 households). The state assistance for subscribers will equal the residential End Users Common Line Charge. Reimbursement for discounts will be authorized by the Public Service Commission on residential access lines through a monthly rate surcharge. The program was approved on August 11, 1987.

-Nevada: established the Nevada Experimental Lifeline Program which has two sets of criteria for eligibility, each of which meets the federal criteria: (a) the applicant must be at least 60 years of age and the applicant's household gross income must be under 150% of the federal poverty level for each household; (b) the applicant must be a recipient of government-funded public assistance, e.g., SSI or SSA, regardless of age, with household income under 150% of the poverty level. The Experimental Lifeline Program will be funded solely by the shareholders of Nevada Bell to provide the $2.00 per month discount and the once-a-year 50% discount connection charge. Eligible subscribers will receive discounts without limitation to the grade of service or customer calling patterns. The program was approved on April 18, 1987.

-New Mexico: approved the Mountain Bell Low Income Telephone Assistance Program (LITAP), effective March 1, 1987. Under LITAP, Mountain Bell's customers in New Mexico who qualify for Medicaid benefits under regulations administered by the New Mexico Human Services Department, will receive a $2.00 per month reduction in monthly bills for basic exchange service. The service and equipment charge to change to this program will be waived. Eligible customers are entitled to a 25% discount on the access line service and equipment charge.

-North Carolina: established a matching program in the state which is available to ratepayers who qualify under the federal AFDC and SSI programs. The program provides for a credit on

the local service bill of 100% of the subscriber line charge. The program is funded through state tax credits given to the participating LECs. The program was approved on May 26, 1986.

-Ohio: approved the low-income "telephone assistance plans" (TAPS) of eight Ohio local exchange companies. Each TAP plan offers a waiver of the security deposit and a fifty percent reduction in service connection charges upon initiation or reestablishment of service to partipants in the Home Energy Assistance Program or the Ohio Energy Credits Program. The requirements in both programs have annual income limits per person and per household. Additionally, eligibility for Ohio Energy Credits requires that the head of the household and/or the spouse be age 65 or older, or permanently or totally disabled, with gross annual household income limited at $9,000. The TAP offerings are provided to eligible customers through the deposit waiver and connection discount only once in a one-year period. The Ohio tariffs give benefits to each subscriber monthly up to the SLC limit of $2.00. Where assistance under a LEC's TAP is less than SLC, the amount of nonrecurring state assistance will be set commensurate with a specified number of months. The program was approved on July 1, 1987.

-Oregon: established an Oregon Telephone Assistance Program (TAP) available to ratepayers 60 years of age or older and who qualify for the federal food stamp program. The program provides for a credit on the local service bill of $2.00, independent of the federal waiver of the subscriber line charge. The program was approved on May 22, 1986.

-Utah: established a lifeline program which addresses the price of local service and the customer's cost of obtaining telephone service. Discounts are provided to eligible customers of telephone companies with rates for local service (not including extended area service, mileage charges for areas outside of the base rate areas, and optional features) above the state established standard needs budget for telephone service. Those include Mountain Bell, Continental Telephone Company of the West, and Beehive Telephone Company. Other telephone companies may apply to the Public Service Commission of Utah for a lifeline rate if they desire to offer one.

Customers who qualify by income or are participating in any one of eight income-eligible welfare programs supervised by Utah's Department of Social Services may register themselves for lifeline services by filing a certification with their

local exchange carrier, if the carrier offers lifeline telephone service.

The telephone companies, not less than annually, must verify their lists of lifeline rate participants with the eligibility lists kept and maintained by Social Services of Utah. The program was approved on December 31, 1986.

-Vermont: enacted broad legislation on May 13, 1986 requiring the Public Service Board to adopt rates designed to implement a lifeline program, and provide a $2.00 credit toward payment on monthly local telephone charges by eligible households. The legislation also required the department of Social Welfare to continue to administer the eligibility and verification provisions fo the program. Two paths of targeted eligibility are administered: the first, participation in either AFDC, Food Stamps, Fuel Assistance, Medicaid, or Supplemental Security Income programs; the second, through the Vermont Department of Taxes' state sales tax credit program for individuals over 65 years old having gross income of less than $13,000 per annum.

-Washington: S.B. No. 5097 became effective July 26, 1987. Eligible subscribers are verified by the State Department of Social and Health Services through participation in AFDC, food stamps, SSI, refugee assistance, or the Community Options Program Entry System. Each of these programs is means-tested by the department. The local exchange deposit is also waived. A 50 percent discount on service connection fee is mandated, and the remaining portion is payable through installment payments. The legislation provides for a subscriber surcharge on all other switched access lines matching the federal subscriber line charge to protect a threshold rate for universal service in each telephone company.

3. Costs and High Cost Assistance

Acting upon the recommendation of the Federal-State Joint Board in CC Docket 80-286, the Commission has adopted rule changes that, effective January 1988, will retarget federal assistance provided to high cost local exchange carriers (LECs). The purpose of this assistance is to keep local telephone rates charged by such LECs lower than they otherwise would be. This section of the report outlines the high cost assistance program and the changes adopted by the Commission, and discusses the baseline high cost data included in the report.

The Commission regulates the recovery by LECs of that portion of their total costs associated with the provision of interstate services. The states regulate the recovery of costs associated with intrastate services (local service and intrastate long distance services). The Commission's high cost assistance program relates to the allocation between the state and interstate jurisdictions of non-traffic sensitive (NTS) "local loop costs" -- a term that refers to the costs of outside telephone wires, poles, and other facilities that link each telephone customer's premises to the public switched telephone network. These costs are allocated between the state and interstate jurisdiction because all local loops can be used for making and receiving intrastate and interstate telephone calls.

On a nationwide basis, approximately 25 percent of a LEC's local loop costs are allocated to the interstate (federal) jurisdiction, and 75 percent are allocated to the state jurisdiction. The average cost per loop, however, varies significantly among LECs. The Commission's high cost assistance program permits LECs with very high per loop costs to allocate more of their loop costs to the interstate jurisdiction, thus leaving less costs to be recovered through state rates. In this manner, the high cost assistance program operates to hold down local rates and thereby furthers one of the most important goals of federal and state regulation -- the preservation of universal telephone service.

Pursuant to the changes recommended by the Joint Board and adopted by the Commission, high cost assistance will be retargetted to benefit small and medium sized LECs beginning in January 1988. This retargetting will take the form of an additional interstate cost allocation for such LECs.

The Commission's high cost assistance program is administered by the National Exchange Carrier Association (NECA). As part of the administration of the program, NECA collects certain cost data from LECs that provide service to about 98% of the nation's subscribers. The information collected by NECA has been useful to both the Joint Boards and the Commission. These reports enable us to monitor the administration of the program and the growth of non-traffic sensitive loop costs. The formats used in prior NECA reports, however, did not necessarily render this data easily understandable by all interested parties. Accordingly, in the decisions establishing this monitoring program, the Joint Board recommended and the Commission concurred

that the Commission direct NECA to reformat its reports and transmit its data on an annual basis in an easily understandable printed format as well as in electronic form. The Joint Board believed that these changes will allow members of the general public, consumer representatives, congressional staff members and others who have an interest in the information to obtain greater benefits from this material.

Each year NECA collects NTS cost data from the previous year, and uses it to distribute high cost assistance in the following year. As of the time this report was compiled, NECA's 1987 report, covering high cost data for 1986, has not yet been received. This information should be included in the next monitoring report in the more easily understandable format discussed above. We request that NECA's next report restate the 1985 results in the new format so that year to year changes are easy to identify. In this report, we include a restatement of the high cost data for 1985, which has been recast at a rate of return of 12% instead of the 12.75% used in NECA's filing. A summary of the variables used in restating the data originally received from NECA appears in Table 3.1. The data shown here are for cost companies only. Average schedule companies are excluded from this report. The high cost numbers shown here are what would prevail after the transition due to be completed January 1, 1994, but using the high cost formula currently in place (not the new formula that will be effective in 1988). The current transitional amount of this high cost support is 25% of the amount shown. Table 3.2 shows the totals and averages for each state and for the entire United States. Table 3.3 shows the values for individual study areas. These are arranged geographically by state and alphabetically within each state. An explanation of the column headings appears at the start of each table.

TABLE 3.1

NECA NTS COST DATA FOR 1985

SUMMARY OF OPTIONS

PLANT CATEGORIES EXCLUDED ARE:

NONE

ACCOUNTS EXCLUDED ARE:

NONE

RATE OF RETURN IS 12.00%

INTERSTATE ALLOCATION IS 25.00%

HIGH COST SUPPORT RELATIVE TO THE NATIONAL AVERAGE COST/LOOP

	BAND WIDTH	% RECOVERY
BAND 1	0.% TO 115.%	0.%
BAND 2	115.% TO 150.%	25.%
BAND 3	150.% AND ABOVE	75.%

BELOW LOOP LIMIT OF 50000.:

HIGH COST SUPPORT RELATIVE TO THE NATIONAL AVERAGE COST/LOOP

	BAND WIDTH	% RECOVERY
BAND 1	0.% TO 115.%	0.%
BAND 2	115.% TO 150.%	50.%
BAND 3	150.% AND ABOVE	75.%

TABLE 3.2

NECA NTS COST DATA FOR 1985

EXPLANATION OF COLUMN HEADINGS

ST	STATE (POSTAL ABBREVIATION)
NUMBER	NUMBER OF STUDY AREAS IN SAMPLE
LOOPS	NUMBER OF OSP CAT 1.33 WORKING LOOPS
URRPL	UNSEPARATED NTS REVENUE REQUIREMENT PER LOOP
HCA	HIGH COST ASSISTANCE
HCAPL	HIGH COST ASSISTANCE PER LOOP
SPF	FROZEN SUBSCRIBER PLANT FACTOR
CIRRPL	CURRENT (SPF) INTERSTATE NTS REVENUE REQUIREMENT PER LOOP
NIRRPL	25% + HCF INTERSTATE NTS REVENUE REQUIREMENT PER LOOP

TABLE 3.2 (Cont.)

NECA NTS COST DATA FOR 1985

ST	NUMBER	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
AL	14	1479893.	259.25	5284799.	3.57	0.2192	56.83	68.38
AK	20	242125.	334.61	22839105.	94.33	0.5865	196.25	177.98
AZ	8	1540044.	249.11	11660572.	7.57	0.4545	113.22	69.85
AR	20	867439.	311.96	17948661.	20.69	0.2952	92.08	98.68
CA	22	14281301.	223.23	34992755.	2.45	0.2497	55.74	58.26
CO	21	1685574.	197.83	2349191.	1.39	0.4317	85.40	50.85
CT	1	1640595.	187.58	0.	0.	0.3388	63.55	46.89
DE	1	333039.	181.76	0.	0.	0.3452	62.74	45.44
DC	1	779688.	97.40	0.	0.	0.4376	42.62	24.35
FL	14	5753924.	283.20	52988351.	9.21	0.3938	111.53	80.01
GA	19	2522339.	252.20	7389048.	2.93	0.2811	70.90	65.98
HI	1	467493.	171.66	0.	0.	0.2885	49.52	42.92
ID	16	419260.	276.75	6362274.	15.18	0.4082	112.96	84.36
IL	16	5682951.	160.21	101986.	0.02	0.2692	43.13	40.07
IN	13	2269822.	189.34	726384.	0.32	0.2643	50.05	47.66
IA	15	1099996.	202.29	382227.	0.35	0.2785	56.34	50.92
KS	34	1137139.	238.77	9299502.	8.18	0.3142	75.02	67.87
KY	4	1250131.	255.08	6063837.	4.85	0.2078	53.00	68.62
LA	18	1816324.	303.37	27249228.	15.00	0.2070	62.79	90.84
ME	11	512590.	263.87	3269418.	6.38	0.3058	80.69	72.35
MD	2	2347608.	175.32	0.	0.	0.2146	37.62	43.83
MA	1	3154474.	145.21	0.	0.	0.2794	40.57	36.30
MI	23	4331931.	194.86	1973272.	0.46	0.1766	34.42	49.17
MN	31	1933858.	195.56	2586534.	1.34	0.2584	50.54	50.23
MS	8	837630.	340.51	25791651.	30.79	0.2478	84.36	115.92
MO	25	2225708.	219.07	16061634.	7.22	0.2802	61.38	61.98
MT	15	365623.	305.90	9455100.	25.86	0.4493	137.45	102.33
NE	32	767688.	188.36	2511418.	3.27	0.3444	64.87	50.36
NV	11	493289.	226.55	5726891.	11.61	0.6290	142.49	68.25
NH	6	508791.	245.02	167584.	0.33	0.4376	107.22	61.58
NJ	7	4345774.	174.25	502114.	0.12	0.3214	56.00	43.68
NM	14	591043.	275.88	17121284.	28.97	0.3934	108.52	97.94
NY	36	9532436.	206.65	4479477.	0.47	0.2782	57.49	52.13
NC	13	2545101.	239.38	10719777.	4.21	0.2421	57.96	64.06
ND	14	308087.	270.73	3407905.	11.06	0.3232	87.50	78.74
OH	11	4523196.	172.90	1142195.	0.25	0.2037	35.22	43.48
OK	26	1451807.	273.61	15194408.	10.47	0.3227	88.29	78.87
OR	26	1293938.	218.65	8594302.	6.64	0.3471	75.91	61.31
PA	10	5234251.	160.48	840031.	0.16	0.2177	34.94	40.28
PR	2	647100.	227.84	0.	0.	0.3500	79.74	56.96
RI	1	465782.	198.29	0.	0.	0.2868	56.87	49.57
SC	11	1174304.	289.88	13732970.	11.69	0.2465	71.45	84.16
SD	11	267529.	277.05	3287497.	12.29	0.3588	99.41	81.55
TN	7	1901713.	219.59	2122147.	1.12	0.2232	49.01	56.01
TX	54	7636404.	252.31	50706751.	6.64	0.2389	60.28	69.72
UT	10	656989.	183.49	2462620.	3.75	0.3246	59.56	49.62
VT	7	259937.	280.62	3057493.	11.76	0.4640	130.20	81.92
VI	1	35289.	363.21	2336773.	66.22	0.4634	168.31	157.02
VA	7	2630150.	231.78	3131483.	1.19	0.2742	63.55	59.13
WA	22	2235832.	192.40	9929651.	4.44	0.3186	61.30	52.54
WV	5	705843.	336.97	21887176.	31.01	0.2196	73.99	115.25
WI	58	2065493.	207.63	5455724.	2.64	0.2343	48.64	54.55
WY	10	233136.	394.72	17103884.	73.36	0.5749	226.91	172.05
US	786	113489401.	217.04	470397084.	4.14	0.2812	61.04	58.41

TABLE 3.3

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

EXPLANATION OF COLUMN HEADINGS

NAME	NAME OF STUDY AREA
ST	STATE (POSTAL ABBREVIATION)
LOOPS	NUMBER OF OSP CAT 1.33 WORKING LOOPS
URRPL	UNSEPARATED NTS REVENUE REQUIREMENT PER LOOP
HCA	HIGH COST ASSISTANCE
HCAPL	HIGH COST ASSISTANCE PER LOOP
SPF	FROZEN SUBSCRIBER PLANT FACTOR
CIRRPL	CURRENT (SPF) INTERSTATE NTS REVENUE REQUIREMENT PER LOOP
NIRRPL	25% + HCF INTERSTATE NTS REVENUE REQUIREMENT PER LOOP

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
CHINA TEL. CO.	ME	1783.	277.01	24438.	13.71	0.3007	83.30	82.96
HAMPDEN TEL. CO.	ME	1867.	282.87	31059.	16.64	0.2625	74.25	87.35
HARTLAND & ST. ALBANS TEL. CO.	ME	1280.	508.38	224117.	175.09	0.3166	160.95	302.19
CONTINENTAL TEL. CO OF MAINE	ME	26599.	367.67	1850345.	69.56	0.3775	138.80	161.48
SOMERSET TEL. CO.	ME	6907.	227.83	0.	0.	0.3365	76.67	56.96
STANDISH TEL. CO.	ME	3552.	312.51	111728.	31.45	0.3422	106.94	109.58
UNION RIVER TEL. CO.	ME	600.	403.57	57893.	96.49	0.4710	190.08	197.38
UNITY TEL. CO.	ME	2470.	336.68	114405.	46.32	0.3609	121.51	130.49
WARREN TEL. CO.	ME	942.	202.87	0.	0.	0.3532	71.65	50.72
WEST PENOBSCOT TEL. & TEL. CO.	ME	1515.	265.89	12342.	8.15	0.2551	67.83	74.62
NEW ENGLAND TEL.-MAINE	ME	465075.	256.85	843089.	1.81	0.2987	76.72	66.03
NEW ENGLAND TEL.-MA	MA	3154474.	145.21	0.	0.	0.2794	40.57	36.30
GRANITE STATE TEL. CO.	NH	5055.	302.98	134922.	26.69	0.4730	143.31	102.44
CONTINENTAL TEL. CO. OF NH, INC.	NH	7719.	258.06	32663.	4.23	0.6542	168.82	68.75
KEARSARGE TEL. CO.	NH	4181.	238.18	0.	0.	0.6978	166.20	59.55
MERIDEN TEL. CO.	NH	371.	216.14	0.	0.	0.8300	179.40	54.04
MERRIMACK COUNTY TEL. CO.	NH	4578.	212.80	0.	0.	0.5791	123.23	53.20
NEW ENGLAND TEL.-NH	NH	486887.	244.60	0.	0.	0.4299	105.15	61.15
SOUTHERN NEW ENGLAND TEL.	CT	1640595.	187.58	0.	0.	0.3388	63.55	46.89
LUDLOW TEL. CO.	VT	2913.	192.62	0.	0.	0.5127	98.76	48.16
NORTHFIELD TEL. CO.	VT	2388.	170.72	0.	0.	0.7143	121.94	42.68
PERKINSVILLE TEL. CO.	VT	631.	225.53	0.	0.	0.5444	122.78	56.38
TOPSHAM TEL. CO.,INC.	VT	817.	263.96	5868.	7.18	0.3976	104.95	73.17
WAITSFIELD/FAYSTON TEL. CO.	VT	3872.	343.84	200129.	51.69	0.8222	282.70	137.65
CONTINENTAL TEL CO OF VT,INC.	VT	24631.	355.60	1490461.	60.51	0.5679	201.95	149.41
NEW ENGLAND TEL.-VT	VT	224685.	273.83	1361034.	6.06	0.4394	120.32	74.51
ADDISON HOME TEL. CO.	NY	1907.	260.77	10650.	5.58	0.2442	63.68	70.78
AU SABLE VALLEY TEL. CO. INC.	NY	4862.	247.88	0.	0.	0.3294	81.65	61.97
BERKSHIRE TEL. CORP.	NY	4182.	159.50	0.	0.	0.2558	40.80	39.87
CHAMPLAIN TEL. CO.	NY	3404.	232.68	0.	0.	0.5404	125.74	58.17
CHAUTAUQUA & ERIE TEL. CORP.	NY	7582.	190.27	0.	0.	0.4354	82.84	47.57
CHAZY & WESTPORT TEL. CORP.	NY	2351.	218.46	0.	0.	0.3404	74.36	54.62
CITIZENS TEL. COOF HAMMOND, NY	NY	638.	570.77	141563.	221.89	0.2240	127.85	364.58
CLYMER TEL. CO.	NY	648.	263.99	4664.	7.20	0.5595	147.70	73.20
TACONIC TEL. CORP.	NY	16624.	180.89	0.	0.	0.3754	67.91	45.22
CROWN POINT TELEPHONE CORPORATION	NY	498.	480.62	76829.	154.28	0.2676	128.61	274.43
DELHI TELEPHONE COMPANY	NY	2471.	303.56	66667.	26.98	0.2636	80.02	102.87
DUNKIRK AND FREDONIA TEL. CO.	NY	7213.	100.33	0.	0.	0.2379	23.87	25.08
EDWARDS TELEPHONE CO. INC.	NY	1215.	486.02	192364.	158.32	0.1807	87.82	279.83
EMPIRE TELEPHONE CORP - NEW YORK	NY	5069.	306.48	144173.	28.44	0.2638	80.85	105.06
CONTINENTAL TEL CO OF NY,INC.	NY	164036.	295.68	1889617.	11.52	0.2286	67.59	85.44
GERMANTOWN TELEPHONE CO INC.	NY	1231.	352.35	71490.	58.07	0.2888	101.76	146.16
HANCOCK TELEPHONE COMPANY - NY	NY	1065.	268.84	10244.	9.62	0.3067	82.45	76.83
HIGHLAND TELEPHONE CO.	NY	37132.	138.49	0.	0.	0.3047	42.20	34.62
MARGARETVILLE TEL. CO. INC.	NY	2016.	263.13	13641.	6.77	0.2325	61.18	72.55
MIDDLEBURGH TELEPHONE CO.	NY	3262.	362.35	213884.	65.57	0.2046	74.14	156.15
ALLTEL NEW YORK INC.- FULTON	NY	31612.	211.62	0.	0.	0.1828	38.68	52.91
NEWPORT TELEPHONE CO. INC.	NY	1885.	364.81	127082.	67.42	0.1471	53.66	158.62
NICHOLVILLE TEL. CO. INC.	NY	1080.	368.12	75492.	69.90	0.2010	73.99	161.93
ALLTEL NEW YORK INC. - JAMESTOWN	NY	36081.	146.51	0.	0.	0.2492	36.51	36.63
OGDEN TELEPHONE COMPANY - NY	NY	14631.	127.43	0.	0.	0.1845	23.51	31.86
ONEIDA COUNTY RURAL TEL. CO.	NY	2727.	200.64	0.	0.	0.1390	27.89	50.16
ALLTEL NY INC. - RED JACKET	NY	2171.	153.55	0.	0.	0.2093	32.14	38.39
PORT BYRON TELEPHONE COMPANY	NY	1926.	284.81	33912.	17.61	0.1524	43.41	88.81
RED HOOK TELEPHONE COMPANY	NY	9301.	306.18	263138.	28.29	0.2970	90.94	104.84
ROCHESTER TELEPHONE CORPORATION	NY	407025.	163.94	0.	0.	0.2140	35.08	40.99
SENECA-GORHAM TEL. CORP.	NY	6245.	180.13	0.	0.	0.2018	36.35	45.03

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
SYLVAN LAKE TELEPHONE COMPANY	NY	10338.	134.79	0.	0.	0.2884	38.87	33.70
VERNON TELEPHONE COMPANY INC.	NY	1682.	272.70	19430.	11.55	0.2594	70.74	79.73
WARWICK VALLEY TEL. CO.-NY	NY	8531.	117.92	0.	0.	0.3879	45.74	29.48
WESTERN COUNTIES TELEPHONE CO.	NY	15432.	372.09	1124637.	72.88	0.2346	87.29	165.90
NEW YORK TELEPHONE	NY	8714363.	207.20	0.	0.	0.2823	58.49	51.80
WARWICK VALLEY TEL. CO.-NJ	NJ	5847.	123.60	0.	0.	0.3971	49.08	30.90
UNITED-SUSSEX TELEPHONE COMPANY	NJ	8556.	353.17	502114.	58.69	0.3420	120.78	146.98
HILLSBOROUGH & MONTGOMERY TEL CO	NJ	12008.	157.94	0.	0.	0.5027	79.40	39.49
NEW JERSEY TELEPHONE COMPANY	NJ	47354.	195.89	0.	0.	0.4371	85.62	48.97
UNITED TELEPHONE COMPANY OF NJ	NJ	31293.	196.95	0.	0.	0.3735	73.56	49.24
WEST JERSEY TELEPHONE COMPANY	NJ	10304.	206.00	0.	0.	0.4088	84.21	51.50
NEW JERSEY BELL	NJ	4230412.	173.52	0.	0.	0.3186	55.28	43.38
GENERAL TEL CO OF PENNSYLVANIA	PA	361265.	211.79	0.	0.	0.2203	46.66	52.95
CONTINENTAL TELEPHONE CO OF PA	PA	40460.	206.92	0.	0.	0.2618	54.17	51.73
LACKAWAXEN TELEPHONE COMPANY	PA	1081.	444.13	137189.	126.91	0.7785	345.76	237.94
MURDOCKSVILLE IND. TEL. CO.	PA	1063.	352.27	61670.	58.01	0.2147	75.63	146.08
NORTH PENN TELEPHONE COMPANY	PA	3474.	314.25	112294.	32.32	0.3391	106.56	110.89
QUAKER STATE TELEPHONE COMPANY	PA	24580.	291.84	519200.	21.12	0.3157	92.14	94.08
SUGAR VALLEY TELEPHONE COMPANY	PA	638.	275.71	8330.	13.06	0.2536	69.92	81.98
UNITED TELEPHONE COMPANY OF PA	PA	248567.	198.96	0.	0.	0.2202	43.81	49.74
VENUS TELEPHONE CORPORATION	PA	998.	252.30	1349.	1.35	0.1009	25.46	64.43
BELL OF PENNSYLVANIA	PA	4552125.	152.91	0.	0.	0.2152	32.91	38.23
ARMSTRONG TELEPHONE COMPANY OF MD	MD	3428.	228.49	0.	0.	0.4052	92.58	57.12
C & P TELEPHONE COMPANY OF MARYLAND	MD	2344180.	175.24	0.	0.	0.2142	37.54	43.81
AMELIA TEL. CORP.	VA	2013.	451.33	266329.	132.30	0.1625	73.34	245.14
CONTINENTAL TELEPHONE CO OF VA	VA	254414.	262.30	807593.	3.17	0.3248	85.19	68.75
ROANOKE & BOTETOURT TEL. CO.	VA	4790.	364.92	323330.	67.50	0.2312	84.37	158.73
CENTRAL TELEPHONE COMPANY OF VA	VA	163129.	269.59	815451.	5.00	0.2918	78.67	72.40
GTC OF THE SE - VIRGINIA	VA	26592.	299.24	659991.	24.82	0.2005	60.00	99.63
UNITED INTER-MOUNTAIN TELEPHONE CO-VA	VA	64343.	265.69	258787.	4.02	0.2102	55.85	70.44
C & P TELEPHONE COMPANY OF VIRGINIA	VA	2114869.	222.80	0.	0.	0.2693	60.00	55.70
HARDY TELEPHONE COMPANY	WV	1479.	605.23	366399.	247.73	0.2526	152.88	399.04
MOUNTAIN STATE TELEPHONE CO.	WV	14138.	401.83	1345651.	95.18	0.1719	69.07	195.64
CONTINENTAL TEL CO OF WEST VIRGINIA	WV	18717.	429.07	2163848.	115.61	0.2245	96.33	222.88
GTC OF THE SE - WEST VIRGINIA	WV	57309.	262.94	191154.	3.34	0.2933	77.12	69.07
C & P TELEPHONE COMPANY OF W VA	WV	614200.	338.93	17820124.	29.01	0.2152	72.94	113.75
CENTRAL TELEPHONE COMPANY OF FLORIDA	FL	21871.	317.41	741499.	33.90	0.3106	98.59	113.25
FLORALA TELEPHONE COMPANY- FLORIDA	FL	2396.	315.54	79002.	32.97	0.3504	110.57	111.86
SOUTHLAND TELEPHONE COMPANY-FL	FL	2261.	269.35	22323.	9.87	0.2865	77.17	77.21
GENERAL TEL CO OF FLORIDA	FL	1267727.	254.85	1662872.	1.31	0.4335	110.48	65.02
GULF TEL. CO.- FL	FL	5627.	254.42	13572.	2.41	0.2804	71.34	66.02
VISTA-UNITED TELECOMMUNICATIONSSYSTEMS	FL	5538.	316.42	185038.	33.41	0.6859	217.04	112.52
INDIANTOWN TELEPHONE SYSTEM	FL	1630.	560.71	349381.	214.34	0.4374	245.26	354.52
NORTHEAST FLORIDA TEL. CO.,INC.	FL	4011.	441.73	501817.	125.11	0.2059	90.95	235.54
ALLTEL FLORIDA INC.	FL	39767.	355.30	2397431.	60.29	0.2616	92.95	149.11
QUINCY TELEPHONE CO-FL DIV.	FL	7189.	287.15	134975.	18.78	0.2097	60.22	90.56
ST. JOSEPH TEL. AND TELE. CO.	FL	17714.	271.45	193556.	10.93	0.3533	95.90	78.79
CENTRAL TELEPHONE COMPANY OF FLORIDA	FL	169041.	200.15	0.	0.	0.3593	71.92	50.04
UNITED TELEPHONE CO. OF FLORIDA	FL	725569.	280.91	5680367.	7.83	0.5015	140.88	78.06
SOUTHERN BELL-FLORIDA	FL	3483583.	296.71	41026518.	11.78	0.3643	108.09	85.95
CONTINENTAL TEL CO OF THE SOUTH-GA	GA	44207.	342.95	2255548.	51.02	0.2024	69.41	136.76
VALLEY TEL. CO.-GA	GA	3641.	180.67	0.	0.	0.3779	68.28	45.17
QUINCY TELEPHONE CO-GA DIV.	GA	530.	310.91	16248.	30.66	0.2804	87.18	108.38
ALMA TELEPHONE CO INC	GA	4510.	369.23	318986.	70.73	0.1677	61.92	163.03
BRANTLEY TELEPHONE COMPANY INC.	GA	2462.	244.18	0.	0.	0.1839	44.90	61.05
CAMDEN TEL & TEL CO INC - GEORGIA	GA	6554.	385.98	545892.	83.29	0.5922	228.57	179.79
CITIZENS TELEPHONE CO INC - GEORGIA	GA	3523.	327.98	140201.	39.80	0.1966	64.48	121.79

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
COASTAL UTILITIES INC	GA	16633.	278.95	244099.	14.68	0.5658	157.83	84.41
DARIEN TELEPHONE CO. INC.	GA	2994.	300.43	76097.	25.42	0.2665	80.07	100.52
ELLIJAY TEL. CO.	GA	5310.	264.69	40074.	7.55	0.1639	43.38	73.72
INTERSTATE TELEPHONE COMPANY	GA	10269.	99.55	0.	0.	0.2478	24.67	24.89
PINELAND TELEPHONE COOP	GA	7958.	290.29	161921.	20.35	0.1521	44.15	92.92
PLANT TEL. & POWER CO. INC.	GA	6207.	380.85	493123.	79.45	0.2195	83.60	174.66
PUBLIC SERVICE TELEPHONE CO.	GA	6242.	399.21	581843.	93.21	0.1602	63.95	193.02
STANDARD TEL. CO.	GA	26298.	327.37	1034450.	39.34	0.1858	60.83	121.18
WAVERLY HALL TEL. CO.,INC.	GA	810.	231.31	0.	0.	0.2372	54.87	57.83
WILKES TEL & ELECTRIC CO.	GA	7740.	186.65	0.	0.	0.1795	33.50	46.66
GTC OF THE SE - GEORGIA	GA	164987.	285.49	1480565.	8.97	0.2170	61.95	80.35
SOUTHERN BELL-GEORGIA	GA	2201464.	246.07	0.	0.	0.2891	71.14	61.52
ATLANTIC TELEPHONE MEMB. CORP.	NC	14456.	184.57	0.	0.	0.2195	40.51	46.14
BARNARDSVILLE TELEPHONE COMPANY	NC	754.	247.66	0.	0.	0.1940	48.05	61.91
CAROLINA TELEPHONE & TEL. CO.	NC	660388.	214.98	0.	0.	0.2409	51.79	53.75
CENTRAL TEL. CO. - NORTH CAROLINA	NC	166647.	166.99	0.	0.	0.2009	33.55	41.75
CITIZENS TELEPHONE COMPANY - NC	NC	11286.	211.08	0.	0.	0.2482	52.39	52.77
THE CONCORD TELEPHONE COMPANY	NC	61487.	123.94	0.	0.	0.1452	18.00	30.98
ALLTEL CAROLINA INC.- NORTH	NC	79595.	202.33	0.	0.	0.2023	40.93	50.58
GTC OF THE SE - NORTH CAROLINA	NC	114487.	202.62	0.	0.	0.3102	62.85	50.66
HEINS TELEPHONE COMPANY	NC	20033.	192.05	0.	0.	0.2041	39.20	48.01
STAR TEL. MEMB. CORP.	NC	11015.	238.85	0.	0.	0.1224	29.24	59.71
CONTINENTAL TELEPHONE CO OF N.C.	NC	68660.	413.36	5824837.	84.84	0.2877	118.92	188.18
WILKES TELEPHONE MEMB. CORP.	NC	6469.	341.45	322796.	49.90	0.0844	28.82	135.26
SOUTHERN BELL-NORTH CAROLINA	NC	1329824.	263.35	4572144.	3.44	0.2441	64.28	69.28
GTC OF THE SE - SOUTH CAROLINA	SC	116919.	231.66	0.	0.	0.3291	76.24	57.91
UNITED TELEPHONE CO. OF THE CAROLINAS	SC	59557.	228.93	0.	0.	0.2916	66.76	57.23
BLUFFTON TEL. & APPL. CO. INC.	SC	1899.	294.44	42576.	22.42	0.6278	184.85	96.03
FARMERS TEL COOP INC - SC	SC	30547.	290.58	625973.	20.49	0.2793	81.16	93.14
HARGRAY TEL. CO. INC.	SC	22696.	323.55	839163.	36.97	0.6930	224.22	117.86
CONTINENTAL TELEPHONE CO OF S.C.	SC	11691.	235.28	0.	0.	0.2870	67.52	58.82
HORRY TEL. COOP. INC.	SC	30543.	224.58	0.	0.	0.2970	66.70	56.15
MCCLELLANVILLE TEL. CO. INC.	SC	922.	260.85	5187.	5.63	0.3214	83.84	70.84
POND BRANCH TEL. CO. INC.	SC	6440.	298.63	157887.	24.52	0.1914	57.16	99.17
WILLISTON TELEPHONE COMPANY	SC	3315.	257.70	13426.	4.05	0.2043	52.65	68.47
SOUTHERN BELL-SOUTH CAROLINA	SC	889775.	303.76	12048759.	13.54	0.2207	67.04	89.48
CONTINENTAL TEL CO OF THE SOUTH - AL	AL	67971.	350.88	2581648.	37.98	0.2156	75.65	125.70
BUTLER TELEPHONE CO. INC.	AL	3392.	342.27	171338.	50.51	0.2941	100.66	136.08
GTC OF THE SE - ALABAMA	AL	102639.	271.33	557488.	5.43	0.3123	84.73	73.26
GRACEBA TOTAL COMMUNICATIONS	AL	3197.	239.02	0.	0.	0.2910	69.55	59.75
GROVE HILL TEL. CORP.	AL	1657.	258.58	7443.	4.49	0.2121	54.85	69.14
GULF TELEPHONE COMPANY - ALABAMA	AL	18952.	251.17	14924.	0.79	0.3827	96.12	63.58
HOPPER TEL. COMPANY INC.	AL	2454.	297.09	58277.	23.75	0.1375	40.85	98.02
MILLRY TELEPHONE CO. INC	AL	3912.	415.13	411371.	105.16	0.3310	137.41	208.94
MONROEVILLE TELEPHONE COMPANY	AL	8079.	295.44	185155.	22.92	0.2408	71.14	96.78
PEOPLES TELEPHONE COMPANY	AL	7566.	377.51	582146.	76.94	0.1931	72.90	171.32
PINE BELT TELEPHONE COMPANY	AL	1708.	304.51	46898.	27.46	0.1360	41.41	103.59
RAGLAND TEL. CO.	AL	898.	266.24	7471.	8.32	0.1886	50.21	74.88
SOUTHLAND TEL. CO.-AL	AL	9526.	248.34	0.	0.	0.2666	66.21	62.09
SOUTH CENTRAL BELL-AL	AL	1247942.	251.72	660641.	0.53	0.2078	52.31	63.46
GENERAL TEL CO OF KENTUCKY	KY	272274.	248.21	0.	0.	0.2537	62.97	62.05
CONTINENTAL TELEPHONE CO OF KENTUCKY	KY	44087.	401.79	4195128.	95.16	0.1714	68.87	195.60
CINCINNATI BELL-KENTUCKY	KY	121640.	192.47	0.	0.	0.1304	25.10	48.12
SOUTH CENTRAL BELL-KENTUCKY	KY	812130.	258.80	1868709.	2.30	0.2047	52.98	67.00
ATHENS TELEPHONE COMPANY	LA	292.	545.68	59297.	203.07	0.3010	164.25	339.49
CENTRAL LOUISIANA TELEPHONE COMPANY	LA	11860.	338.21	562968.	47.47	0.2804	94.83	132.02
COASTAL TELEPHONE & ELECTRONICS CORP.	LA	9298.	247.97	0.	0.	0.1521	37.72	61.99

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
CAMERON TEL. CO.- LA	LA	5646.	443.22	712662.	126.22	0.3657	162.09	237.03
CHATHAM TELEPHONE COMPANY, INC.	LA	1180.	338.83	56562.	47.93	0.1519	51.47	132.64
EAST ASCENSION TELEPHONE COMPANY	LA	19128.	275.06	243554.	12.73	0.1783	49.04	81.50
ELIZABETH TELEPHONE COMPANY INC	LA	2276.	526.14	428838.	188.42	0.1915	100.76	319.95
CADDOAN TELEPHONE COMPANY	LA	7641.	285.06	135473.	17.73	0.3500	99.77	88.99
LAFOURCHE TEL. CO.	LA	10602.	358.39	663697.	62.60	0.2486	89.10	152.20
EVANGELINE TELEPHONE COMPANY	LA	24216.	295.36	554116.	22.88	0.3500	103.38	96.72
NORTHEAST LOUISIANA TEL. CO.INC.	LA	795.	502.22	135529.	170.48	0.2700	135.60	296.03
NORTHWEST LOUISIANA TEL. CO.INC.	LA	959.	281.37	15233.	15.88	0.3092	87.00	86.23
PLAIN DEALING TELEPHONE COMPANY	LA	1495.	316.85	50271.	33.63	0.1888	59.82	112.84
RINGGOLD TEL. CO.,INC.	LA	1454.	219.42	0.	0.	0.2804	61.52	54.85
CENTURY TELEPHONE COMPANY INC.	LA	1310.	645.86	364451.	278.21	0.3500	226.05	439.67
LOUISIANA WESTERN TELEPHONE COMPANY	LA	2670.	559.61	570091.	213.52	0.3500	195.86	353.42
UNITED TELEPHONE COMPANY OF LOUISIANNA	LA	2097.	462.46	294959.	140.66	0.3500	161.86	256.27
SOUTH CENTRAL BELL-LOUISIANA	LA	1713405.	301.90	22401525.	13.07	0.2023	61.07	88.55
BAY SPRINGS TELEPHONE COMPANY INC.	MS	8472.	325.26	320480.	37.83	0.1964	63.88	119.14
DECATUR TELEPHONE CO INC- MS	MS	1316.	233.95	0.	0.	0.1240	29.01	58.49
DELTA TELEPHONE COMPANY INC.	MS	1411.	279.77	21283.	15.08	0.2399	67.12	85.02
FRANKLIN TELEPHONE COMPANY INC - MS	MS	5740.	366.63	394790.	68.78	0.2075	76.07	160.44
HUGHES TELEPHONE COMPANY	MS	4787.	364.72	322389.	67.35	0.1810	66.01	158.53
NOXAPATER TEL. CO.,INC.	MS	869.	329.41	35513.	40.87	0.1772	58.37	123.22
SLEDGE TEL. CO.,INC.	MS	406.	306.10	11470.	28.25	0.2671	81.76	104.78
SOUTH CENTRAL BELL-MISSISSIPPI	MS	814629.	340.65	24685727.	30.30	0.2492	84.89	115.46
GTC OF THE SE - TENNESSEE	TN	43527.	240.29	0.	0.	0.2335	56.11	60.07
ADAMSVILLE TELEPHONE COMPANY INC.	TN	4932.	330.41	205271.	41.62	0.3212	106.13	124.22
UNITED INTER-MOUNTAIN TEL. COMPANY-TN	TN	149418.	212.34	0.	0.	0.2192	46.55	53.09
MILLINGTON TELEPHONE COMPANY INC.	TN	14117.	187.41	0.	0.	0.3908	73.24	46.85
TENNESSEE TELEPHONE COMPANY	TN	27990.	366.23	1916876.	68.48	0.1741	63.76	160.04
TWIN LAKES TEL. COOP. CORP.	TN	20433.	225.88	0.	0.	0.1751	39.55	56.47
SOUTH CENTRAL BELL-TENNESSEE	TN	1641296.	217.06	0.	0.	0.2236	48.53	54.26
CHILLICOTHE TELEPHONE COMPANY	OH	23148.	213.15	0.	0.	0.1363	29.05	53.29
CONTINENTAL TELEPHONE CO OF OHIO	OH	1549.	324.73	58188.	37.56	0.1593	51.73	118.75
FAYETTEVILLE TELEPHONE COMPANY	OH	1107.	363.92	73888.	66.75	0.1503	54.70	157.72
GENERAL TEL OF OHIO	OH	564150.	218.84	0.	0.	0.2258	49.41	54.71
CENTRAL TELEPHONE COMPANY OF OHIO	OH	56736.	139.33	0.	0.	0.1837	25.59	34.83
ORWELL TELEPHONE COMPANY	OH	4889.	176.16	0.	0.	0.2093	36.87	44.04
UNITED TELEPHONE CO. OF OHIO	OH	382118.	260.17	1010119.	2.64	0.2168	56.41	67.69
ALLTEL OHIO INC - WESTERN OHIO	OH	16114.	198.92	0.	0.	0.2019	40.16	49.73
C C & S TELCO INC.- OHIO	OH	422.	137.75	0.	0.	0.2804	38.62	34.44
CINCINNATI BELL-OHIO	OH	576269.	147.18	0.	0.	0.1973	29.04	36.80
OHIO BELL TEL CO	OH	2896694.	157.60	0.	0.	0.1972	31.08	39.40
BLANCHARD TELEPHONE ASSOC. INC.	MI	902.	292.10	19166.	21.25	0.1298	37.91	94.27
BLOOMINGDALE TELEPHONE COMPANY	MI	1290.	274.76	16226.	12.58	0.2608	71.66	81.27
CHIPPEWA COUNTY TELEPHONE COMPANY	MI	766.	298.32	18658.	24.36	0.2685	80.10	98.94
ALLTEL MICHIGAN INC.	MI	34052.	227.20	0.	0.	0.2385	54.19	56.80
C,C & S TELCO, INC. - MICHIGAN	MI	15888.	155.20	0.	0.	0.1996	30.98	38.80
CARR TELEPHONE COMPANY	MI	1121.	251.42	1023.	0.91	0.4030	101.32	63.77
CHATHAM TELEPHONE COMPANY - MI	MI	2097.	243.16	0.	0.	0.2360	57.39	60.79
CLAYTON TELEPHONE COMPANY	MI	549.	354.30	32685.	59.54	0.2205	78.12	148.11
GENERAL TEL CO OF MICHIGAN	MI	445659.	233.16	0.	0.	0.1920	44.77	58.29
HICKORY TELEPHONE COMPANY	MI	1171.	210.08	0.	0.	0.1866	39.20	52.52
CENTURY TELEPHONE OF MICHIGAN, INC.	MI	31387.	322.10	1137825.	36.25	0.2027	65.29	116.78
ACE TELEPHONE CO. OF MI INC.	MI	2978.	381.69	238472.	80.08	0.2079	79.35	175.50
MIDWAY TELEPHONE COMPANY	MI	697.	436.55	84494.	121.23	0.2848	124.33	230.36
HIAWATHA TELEPHONE COMPANY	MI	2531.	368.81	178224.	70.42	0.3009	110.97	162.62
ONTONAGON COUNTY TELEPHONE CO.	MI	3588.	156.44	0.	0.	0.3090	48.34	39.11
PIGEON TELEPHONE COMPANY	MI	1933.	308.40	56833.	29.40	0.1651	50.92	106.50

— TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
SPRINGPORT TEL. CO.	MI	1451.	282.87	24140.	16.64	0.1970	55.73	87.35
TWINING TELEPHONE COMPANY	MI	389.	286.98	7271.	18.69	0.1059	30.39	90.44
UPPER PENINSULA TEL. CO.	MI	2687.	344.70	140622.	52.33	0.3723	128.33	138.51
WALDRON TELEPHONE COMPANY	MI	501.	284.87	8835.	17.63	0.4235	120.64	88.85
WESTPHALIA TELEPHONE COMPANY	MI	724.	273.91	8799.	12.15	0.0682	18.68	80.63
WOLVERINE TELEPHONE COMPANY	MI	6050.	234.58	0.	0.	0.1484	34.81	58.65
MICHIGAN BELL TEL CO	MI	3773520.	188.44	0.	0.	0.1725	32.51	47.11
CLAY CTY RURAL TEL. COOP. INC.	IN	5257.	225.10	0.	0.	0.1962	44.16	56.28
ELNORA TELEPHONE COMPANY INC.	IN	433.	180.82	0.	0.	0.1313	23.74	45.20
GARRETT TELEPHONE CO. INC.	IN	2300.	139.04	0.	0.	0.2803	38.97	34.76
GENERAL TEL CO OF IN INC	IN	529979.	198.32	0.	0.	0.3179	63.05	49.58
HOME TELEPHONE COMPANY INC.	IN	1802.	339.31	87022.	48.29	0.1152	39.09	133.12
CONTINENTAL TELEPHONE CO OF IN,INC.	IN	115007.	268.61	546619.	4.75	0.2662	71.50	71.91
NEW PARIS TELEPHONE INC.	IN	1338.	222.51	0.	0.	0.2512	55.90	55.63
PERRY-SPENCER RURAL TEL. COOP. INC.	IN	3477.	291.84	73429.	21.12	0.2022	59.01	94.08
PULASKI-WHITE RURAL TEL. COOP. INC.	IN	1494.	275.45	19314.	12.93	0.2175	59.91	81.79
TRI-COUNTY TEL. CO. INC.-IN	IN	2370.	198.73	0.	0.	0.1544	30.68	49.68
UNITED TELEPHONE CO. OF INDIANA INC.	IN	161067.	249.07	0.	0.	0.3094	77.06	62.27
YEOMAN TELEPHONE COMPANY INC.	IN	993.	248.22	0.	0.	0.2266	56.25	62.05
INDIANA BELL TEL CO	IN	1444305.	172.42	0.	0.	0.2355	40.60	43.10
CENCOM OF WISCONSIN INC.	WI	20624.	231.80	0.	0.	0.2402	55.68	57.95
AMERY TELEPHONE COMPANY	WI	4672.	184.69	0.	0.	0.2933	54.17	46.17
AMHERST TELEPHONE COMPANY	WI	3140.	258.27	13618.	4.34	0.1910	49.33	68.91
BADGER STATE TELEPHONE CO INC.	WI	3695.	246.40	0.	0.	0.1443	35.56	61.60
BONDUEL TELEPHONE COMPANY	WI	1373.	238.19	0.	0.	0.0984	23.44	59.55
BRUCE TELEPHONE COMPANY, INC.	WI	1426.	284.15	24632.	17.27	0.2830	80.41	88.31
BURLINGTON BRIGHTON & WHEATLAND TEL	WI	2548.	186.44	0.	0.	0.3067	57.18	46.61
CASCO TELEPHONE COMPANY	WI	1028.	234.89	0.	0.	0.0827	19.43	58.72
LAKESHORE TELEPHONE COMPANY	WI	1412.	202.94	0.	0.	0.1753	35.57	50.73
CENTRAL STATE TELEPHONE COMPANY	WI	5878.	329.98	242748.	41.30	0.2022	66.72	123.79
CHEQUAMEGON TELEPHONE COOP INC.	WI	5131.	253.18	9198.	1.79	0.4266	108.01	65.09
CHIBARDUN TELEPHONE COOP INC.	WI	4318.	237.29	0.	0.	0.1977	46.91	59.32
CRANDON TELEPHONE COMPANY	WI	2046.	339.97	99819.	48.79	0.1757	59.73	133.78
DODGE COUNTY TELEPHONE COMPANY	WI	865.	210.77	0.	0.	0.1000	21.08	52.69
FENNIMORE TELEPHONE COMPANY	WI	1498.	194.37	0.	0.	0.2316	45.02	48.59
FOOTVILLE TELEPHONE COMPANY	WI	830.	230.42	0.	0.	0.1573	36.24	57.60
GENERAL TEL CO OF WISCONSIN	WI	261212.	321.07	4667446.	17.87	0.2611	83.83	98.14
GREENWOOD TELEPHONE CO INC.	WI	1286.	217.46	0.	0.	0.1550	33.71	54.37
HAGER CITY TELEPHONE COMPANY	WI	1501.	247.31	0.	0.	0.2804	69.34	61.83
HEADWATERS TEL. CO.	WI	2965.	342.47	150216.	50.66	0.3244	111.10	136.28
HILLSBORO TELEPHONE COMPANY INC.	WI	1380.	176.08	0.	0.	0.1337	23.54	44.02
CENTURY TELEPHONE OF WISCONSIN INC.	WI	38861.	116.77	0.	0.	0.2624	30.64	29.19
LARSEN-READFIELD TEL. CO.	WI	1801.	181.69	0.	0.	0.1370	24.89	45.42
LEMONWEIR VALLEY TEL. CO.	WI	2202.	233.01	0.	0.	0.3562	83.00	58.25
MANAWA TELEPHONE COMPANY	WI	1875.	198.33	0.	0.	0.1683	33.38	49.58
MARQUETTE-ADAMS TEL. COOP. INC.	WI	2506.	183.44	0.	0.	0.5665	103.92	45.86
MIDWAY TELEPHONE COMPANY	WI	5644.	252.46	8078.	1.43	0.2020	51.00	64.55
MILLTOWN MUTUAL TELEPHONE COMPANY	WI	1707.	175.77	0.	0.	0.2876	50.55	43.94
MONROE COUNTY TELEPHONE COMPANY	WI	7923.	222.88	0.	0.	0.3120	69.54	55.72
MOSEL & CENTERVILLE TELEPHONE CO	WI	2648.	208.01	0.	0.	0.1951	40.58	52.00
MOUNT HOREB TELEPHONE COMPANY	WI	2623.	259.20	12588.	4.80	0.2804	72.68	69.60
MOUNT VERNON TELEPHONE COMPANY	WI	4476.	192.51	0.	0.	0.2172	41.81	48.13
NIAGARA TELEPHONE COMPANY	WI	3169.	202.17	0.	0.	0.3607	72.92	50.54
NORTH-WEST TELEPHONE COMPANY	WI	46221.	230.25	0.	0.	0.2474	56.96	57.56
BAYLAND TELEPHONE INC.	WI	1138.	207.47	0.	0.	0.1255	26.04	51.87
PEOPLES TELEPHONE CO OF RANDOLPH	WI	5106.	249.87	688.	0.13	0.1861	46.50	62.60
PLATTEVILLE TELEPHONE COMPANY	WI	6971.	173.04	0.	0.	0.3324	57.52	43.26

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
INDIANHEAD TEL. CO.	WI	1519.	439.45	187441.	123.40	0.3561	156.49	233.26
PRICE COUNTY TELEPHONE COMPANY	WI	3013.	238.62	0.	0.	0.2908	69.39	59.65
RHINELANDER TEL. CO.	WI	7748.	189.05	0.	0.	0.2302	43.52	47.26
RIB LAKE TELEPHONE COMPANY	WI	1025.	251.72	1087.	1.06	0.2804	70.58	63.99
ROCK RIVER TELEPHONE COMPANY	WI	1374.	257.65	5533.	4.03	0.2054	52.92	68.44
SCANDINAVIA TELEPHONE COMPANY	WI	1746.	263.42	12065.	6.91	0.2580	67.96	72.76
SHELL LAKE TEL. CO.	WI	1935.	142.91	0.	0.	0.2381	34.03	35.73
SIREN TELEPHONE CO.,INC.	WI	1560.	180.48	0.	0.	0.4445	80.22	45.12
SOLON SPRINGS TEL. CO.	WI	12658.	213.68	0.	0.	0.4341	92.76	53.42
SOUTHEAST TEL. CO. OF WIS.,INC.	WI	5039.	251.13	3855.	0.76	0.1855	46.58	63.55
STOCKBRIDGE & SHERWOOD TEL. CO.	WI	2065.	249.39	0.	0.	0.1151	28.70	62.35
UNIVERSAL TEL. CO. OF NORTHERN WIS.INC	WI	8443.	238.19	0.	0.	0.5511	131.27	59.55
THORP TELEPHONE COMPANY	WI	2116.	215.19	0.	0.	0.2103	45.25	53.80
TURTLE LAKE TELEPHONE CO INC.	WI	1117.	189.54	0.	0.	0.3142	59.55	47.39
UNITED TELEQUIPMENT CORP.	WI	11604.	169.46	0.	0.	0.2763	46.82	42.37
URBAN TELEPHONE CORPORATION	WI	13825.	174.92	0.	0.	0.2025	35.42	43.73
VALDERS TELEPHONE COMPANY	WI	1776.	199.73	0.	0.	0.1412	28.20	49.93
VIROQUA TELEPHONE COMPANY	WI	2945.	183.92	0.	0.	0.1821	33.49	45.98
WITTENBERG TELEPHONE COMPANY	WI	1803.	268.14	16713.	9.27	0.1030	27.62	76.30
WOOD COUNTY TELEPHONE COMPANY	WI	19890.	107.07	0.	0.	0.2033	21.77	26.77
WISCONSIN BELL	WI	1498593.	188.86	0.	0.	0.2201	41.57	47.22
CENTRAL TEL. CO. OF IL	IL	157503.	160.38	0.	0.	0.3168	50.81	40.09
ALLTEL ILLINOIS INC.	IL	38678.	150.22	0.	0.	0.3477	52.23	37.56
EGYPTIAN TELEPHONE COOPERATIVE ASSN.	IL	2498.	282.34	40898.	16.37	0.2313	65.31	86.96
EL PASO TELEPHONE COMPANY	IL	1426.	227.92	0.	0.	0.2461	56.09	56.98
C-R TELEPHONE COMPANY	IL	890.	191.69	0.	0.	0.1665	31.92	47.92
LAKESIDE TEL. CO.	IL	729.	254.15	1661.	2.28	0.1846	46.92	65.82
GENERAL TEL CO OF ILLINOIS	IL	491398.	220.39	0.	0.	0.2570	56.64	55.10
GRIDLEY TELEPHONE COMPANY	IL	1057.	165.61	0.	0.	0.2563	42.45	41.40
CONTINENTAL TELEPHONE CO OF ILLINOIS	IL	151689.	245.15	0.	0.	0.2695	66.07	61.29
ILLINOIS CONSOLIDATED TELEPHONE COMPANY	IL	68599.	223.26	0.	0.	0.2229	49.76	55.81
INLAND TEL. CO.	IL	3933.	236.45	0.	0.	0.1884	44.55	59.11
LEAF RIVER VALLEY TELEPHONE COMPANY	IL	563.	236.96	0.	0.	0.2090	49.52	59.24
MIDLAND TELEPHONE COMPANY	IL	3915.	279.96	59427.	15.18	0.1899	53.16	85.17
MOULTRIE INDEPENDENT TELEPHONE COMPANY	IL	665.	136.35	0.	0.	0.1563	21.31	34.09
PRAIRIE TEL. CO.	IL	936.	179.06	0.	0.	0.2063	36.94	44.77
ILLINOIS BELL TEL CO	IL	4758472.	150.18	0.	0.	0.2701	40.56	37.54
AYRSHIRE FMRS. MUT. TEL. CO.	IA	358.	210.16	0.	0.	0.2296	48.25	52.54
BERNARD TELEPHONE COMPANY INC.	IA	444.	415.72	46885.	105.60	0.1830	76.08	209.53
BROOKLYN MUTUAL TELEPHONE COMPANY	IA	1323.	136.24	0.	0.	0.1890	25.75	34.06
DUNKERTON TELEPHONE COOP.,INC,	IA	623.	235.14	0.	0.	0.1585	37.27	58.78
GTC OF THE MW - IOWA	IA	103017.	197.36	0.	0.	0.2856	56.37	49.34
CONTINENTAL TELEPHONE CO. OF IOWA	IA	65901.	265.04	254337.	3.86	0.2336	61.91	70.12
KALONA COOP TELEPHONE COMPANY	IA	1449.	128.17	0.	0.	0.2527	32.39	32.04
LOST NATION - ELWOOD TEL. CO.	IA	620.	255.51	1831.	2.95	0.1550	39.60	66.83
UNITED FARMERS TELEPHONE COMPANY	IA	539.	337.50	25298.	46.94	0.2940	99.23	131.31
UNITED TELEPHONE CO. OF IOWA	IA	62775.	214.08	0.	0.	0.2583	55.30	53.52
WEBB-DICKENS TELEPHONE CORPORATION	IA	457.	253.90	983.	2.15	0.2710	68.81	65.63
WELLMAN COOP TELEPHONE ASSN.	IA	1090.	179.96	0.	0.	0.1730	31.13	44.99
ACE TELEPHONE ASSOCIATION- IOWA	IA	2947.	255.09	8089.	2.74	0.1894	48.31	66.52
GRAND RIVER MUTUAL TEL CORP - IA	IA	5057.	267.32	44803.	8.86	0.2804	74.96	75.69
NORTHWESTERN BELL-IOWA	IA	853396.	196.57	0.	0.	0.2849	56.00	49.14
CONTINENTAL TEL CO OF MN,INC.	MN	88427.	307.14	1271950.	14.38	0.2083	63.98	91.17
GTC OF THE MW - MINNESOTA	MN	3320.	190.27	0.	0.	0.2604	49.55	47.57
ACE TELEPHONE ASSOCIATION - MN	MN	8306.	177.74	0.	0.	0.2594	46.11	44.44
ARVIG TELEPHONE COMPANY	MN	7699.	230.68	0.	0.	0.3208	74.00	57.67
BLACKDUCK TELEPHONE COMPANY	MN	975.	297.19	23199.	23.79	0.2242	66.63	98.09

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
BRIDGEWATER TELEPHONE COMPANY	MN	3597.	240.87	0.	0.	0.2986	71.92	60.22
CENTRAL TELEPHONE COMPANY - MN	MN	62420.	193.22	0.	0.	0.2344	45.29	48.31
CONSOLIDATED TELEPHONE COMPANY- MN	MN	5704.	195.77	0.	0.	0.2094	40.99	48.94
ARROWHEAD COMMUNICATIONS CORP.	MN	530.	335.83	24213.	45.68	0.2769	92.99	129.64
DEER RIVER TELEPHONE CO.	MN	1622.	270.71	17124.	10.56	0.2123	57.47	78.24
EAGLE VALLEY TELEPHONE COMPANY	MN	617.	241.10	0.	0.	0.1403	33.83	60.28
EAST OTTER TAIL TELEPHONE CO.	MN	12050.	225.55	0.	0.	0.2723	61.42	56.39
EMILY COOPERATIVE TELEPHONE CO.	MN	868.	216.20	0.	0.	0.2142	46.31	54.05
GARDEN VALLEY TELEPHONE COMPANY	MN	12970.	251.19	10309.	0.79	0.2344	58.88	63.59
GRANADA TEL. CO.	MN	276.	205.43	0.	0.	0.1520	31.23	51.36
HALSTAD TELEPHONE COMPANY	MN	1433.	184.33	0.	0.	0.2746	50.62	46.08
JOHNSON TELEPHONE COMPANY	MN	1243.	671.27	369494.	297.26	0.3306	221.92	465.08
LAKEDALE TELEPHONE COMPANY	MN	9591.	161.49	0.	0.	0.1655	26.73	40.37
MADELIA TELEPHONE COMPANY	MN	1495.	156.60	0.	0.	0.1953	30.58	39.15
MID STATE TELEPHONE COMPANY	MN	5290.	206.30	0.	0.	0.1898	39.16	51.58
NEW ULM TELECOM, INC.	MN	7484.	191.96	0.	0.	0.2605	50.00	47.99
NORMAN COUNTY TELEPHONE CO. INC.	MN	3571.	243.25	0.	0.	0.2437	59.28	60.81
NORTHLAND TELEPHONE COMPANY	MN	591.	233.67	0.	0.	0.1974	46.13	58.42
PAUL BUNYAN RURAL TEL. COOP.	MN	4720.	344.74	247176.	52.37	0.2340	80.67	138.55
UNITED TELEPHONE CO OF MINN	MN	79492.	280.95	623070.	7.84	0.1913	53.75	78.08
SHERBURNE COUNTY RURAL TEL. CO.	MN	4616.	199.03	0.	0.	0.1672	33.28	49.76
SLEEPY EYE TEL. CO.	MN	5032.	213.42	0.	0.	0.1597	34.08	53.36
STARBUCK TEL. CO.	MN	1275.	243.14	0.	0.	0.2537	61.69	60.79
TWIN VALLEY-ULEN TEL CO INC.	MN	2734.	182.28	0.	0.	0.2075	37.82	45.57
CROSSLAKE TELEPHONE COMPANY	MN	1225.	178.45	0.	0.	0.3443	61.44	44.61
NORTHWESTERN BELL-MINNESOTA	MN	1594685.	183.38	0.	0.	0.2707	49.64	45.84
GTC OF THE MW - NEBRASKA	NE	41911.	207.62	0.	0.	0.2718	56.43	51.91
ARAPAHOE TELEPHONE COMPANY	NE	1049.	383.93	85767.	81.76	0.3290	126.31	177.74
ARLINGTON TELEPHONE COMPANY	NE	907.	439.58	112007.	123.49	0.3236	142.25	233.39
BLAIR TELEPHONE COMPANY	NE	4897.	228.53	0.	0.	0.3236	73.95	57.13
THREE RIVER TELCO	NE	1207.	401.77	114830.	95.14	0.4006	160.95	195.58
CONSOLIDATED TELCO, INC.	NE	1452.	288.66	28359.	19.53	0.2363	68.21	91.70
CLARKS TELEPHONE COMPANY	NE	942.	311.86	29324.	31.13	0.1822	56.82	109.09
COZAD TELEPHONE COMPANY	NE	2456.	225.47	0.	0.	0.2804	63.22	56.37
CURTIS TELEPHONE COMPANY	NE	823.	358.54	51615.	62.72	0.1759	63.07	152.35
DALTON TEL. CO.,INC.	NE	1250.	484.31	196302.	157.04	0.4989	241.62	278.12
DILLER TELEPHONE COMPANY	NE	897.	282.91	14938.	16.65	0.2804	79.33	87.38
EASTERN NEBRASKA TELEPHONE COMPANY	NE	2703.	277.31	37449.	13.85	0.3653	101.30	83.18
GLENWOOD TELEPHONE MEMBERSHIP CORP.	NE	2492.	265.49	19795.	7.94	0.1844	48.96	74.32
HARTMAN TELEPHONE EXCHANGES INC.	NE	452.	691.74	141302.	312.62	0.2804	193.96	485.55
HEMINGFORD COOP. TELEPHONE COMPANY	NE	856.	349.07	47607.	55.62	0.2923	102.03	142.88
HERSHEY COOPERATIVE TELEPHONE CO	NE	639.	217.35	0.	0.	0.3063	66.57	54.34
K & M TELEPHONE COMPANY INC.	NE	657.	247.43	0.	0.	0.1855	45.90	61.86
KEYSTONE-ARTHUR TELEPHONE COMPANY	NE	426.	638.65	116211.	272.80	0.5899	376.74	432.46
LINCOLN TEL. & TELE. CO.	NE	212867.	170.63	0.	0.	0.3167	54.04	42.66
NEBRASKA CENTRAL TELEPHONE COMPANY	NE	3425.	215.50	0.	0.	0.2594	55.90	53.88
NORTHEAST NEBRASKA TELEPHONE COMPANY	NE	3537.	222.98	0.	0.	0.2373	52.91	55.75
GREAT PLAINS COMMUNICATIONS, INC.	NE	24276.	289.92	489378.	20.16	0.2862	82.97	92.64
PETERSBURG TELEPHONE COMPANY	NE	439.	481.35	67967.	154.82	0.2212	106.47	275.16
PIERCE TELEPHONE COMPANY	NE	1610.	230.48	0.	0.	0.1618	37.29	57.62
ROCK COUNTY TEL. CO.	NE	1021.	637.88	277935.	272.22	0.2932	187.03	431.69
RODEO TELEPHONE INC.	NE	2475.	257.16	9354.	3.78	0.1622	41.71	68.07
SOUTHEAST NEBRASKA TEL. CO.	NE	3790.	298.73	93110.	24.57	0.3248	97.03	99.25
STANTON TEL. CO.,INC.	NE	989.	452.33	131592.	133.06	0.1787	80.83	246.14
UNITED TELEPHONE CO. OF THE WEST-NE	NE	23235.	236.55	0.	0.	0.3854	91.17	59.14
WAUNETA TEL. CO.	NE	641.	760.45	233420.	364.15	0.2804	213.23	554.26
BENKELMAN TELEPHONE COMPANY INC.	NE	1181.	515.57	213154.	180.49	0.4141	213.50	309.38

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
NORTHWESTERN BELL-NEBRASKA	NE	422186.	174.20	0.	0.	0.3784	65.92	43.55
NORTH DAKOTA TELEPHONE COMPANY	ND	9339.	317.21	315719.	33.81	0.2909	92.28	113.11
BEK TELEPHONE MUTUAL AID CORP.	ND	3763.	315.24	123506.	32.82	0.1831	57.72	111.63
CONSOLIDATED TELEPHONE COOPERATIVE	ND	3951.	541.11	788783.	199.64	0.3423	185.22	334.92
DAKOTA CENTRAL RURAL TEL COOP ASSN	ND	2320.	398.27	214626.	92.51	0.2226	88.65	192.08
DICKEY RURAL TEL COOP.	ND	2707.	373.51	200166.	73.94	0.2447	91.40	167.32
INTER-COMMUNITY TELEPHONE COMPANY	ND	1242.	450.60	163650.	131.76	0.2140	96.43	244.41
MIDSTATE TELEPHONE COMPANY	ND	1469.	282.93	24479.	16.66	0.4382	123.98	87.40
NORTHWEST MUTUAL AID TELEPHONE CORP.	ND	3550.	315.46	116905.	32.93	0.3786	119.43	111.80
POLAR COMMUNICATIONS MUTUAL AID CORP	ND	8431.	199.44	0.	0.	0.2460	49.06	49.86
RESERVATION TELEPHONE COOPERATIVE	ND	4243.	386.33	354529.	83.56	0.3488	134.75	180.14
SOURIS RIVER TEL. MUTUAL AID CORP.	ND	12652.	205.46	0.	0.	0.4539	93.26	51.37
UNITED TELEPHONE MUTUAL AID CORP.	ND	4482.	163.62	0.	0.	0.2307	37.75	40.90
WEST RIVER MUTUAL AID TELEPHONE CORP	ND	8966.	208.41	0.	0.	0.3784	78.86	52.10
NORTHWESTERN BELL-NORTH DAKOTA	ND	240972.	267.95	1105541.	4.59	0.3241	86.84	71.58
BISON STATE TELEPHONE COMPANY	SD	7068.	358.48	442970.	62.67	0.4130	148.05	152.29
BROOKINGS-LAKE TELEPHONE COMPANY	SD	2528.	293.61	55625.	22.00	0.2922	85.79	95.40
CHEYENNE RIVER SIOUX TRIBAL TEL AUTH	SD	1739.	501.81	295920.	170.17	0.2926	146.83	295.62
GOLDEN WEST TEL. COOP.,INC	SD	10221.	408.67	1025269.	100.31	0.4053	165.63	202.48
KENNEBEC TELEPHONE COMPANY	SD	270.	575.67	60902.	225.56	0.3034	174.66	369.48
MCCOOK COOPERATIVE TELEPHONE CO.	SD	795.	267.42	7085.	8.91	0.2382	63.70	75.77
MIDSTATE TELEPHONE COMPANY	SD	2481.	308.84	73490.	29.62	0.2160	66.71	106.83
SANBORN TEL. COOP.	SD	2421.	236.50	0.	0.	0.2142	50.66	59.13
SULLY BUTTES TELEPHONE COOP. INC.	SD	4109.	317.62	139746.	34.01	0.2272	72.16	113.41
WEST RIVER COOPERATIVE TEL. CO.	SD	1476.	573.50	330528.	223.94	0.3320	190.40	367.31
NORTHWESTERN BELL-SOUTH DAKOTA	SD	234421.	264.20	855963.	3.65	0.3620	95.64	69.70
ALLTEL ARKANSAS, INC.	AR	44861.	319.29	1563246.	34.85	0.3129	99.91	114.67
ARKANSAS TELEPHONE COMPANY	AR	4906.	288.74	96019.	19.57	0.2803	80.93	91.76
CENTRAL ARKANSAS TEL. COOP INC.	AR	1828.	309.17	54452.	29.79	0.2472	76.43	107.08
SOUTH ARKANSAS TEL. CO.,INC.	AR	2986.	337.19	139443.	46.70	0.2839	95.73	131.00
LIBERTY TEL. & COMMUNICATIONS INC.	AR	9158.	302.07	240265.	26.24	0.3702	111.83	101.75
MADISON COUNTY TEL. CO. INC.	AR	1813.	280.59	28090.	15.49	0.3029	84.99	85.64
MOUNTAIN HOME TELEPHONE COMPANY INC.	AR	12045.	246.89	0.	0.	0.4904	121.07	61.72
NORTHERN ARKANSAS TEL. CO.,INC.	AR	3412.	318.47	117492.	34.43	0.5478	174.46	114.05
ALLIED UTILITIES CORPORATION	AR	5833.	187.71	0.	0.	-0.3742	70.24	46.93
E. RITTER TELEPHONE COMPANY	AR	3739.	163.70	0.	0.	0.3411	55.84	40.92
SOUTHWEST ARKANSAS TEL. COOP. INC.	AR	4104.	328.82	165913.	40.43	0.3106	102.13	122.63
TRI-COUNTY TEL. CO. INC.-AR	AR	3226.	391.10	281104.	87.14	0.2580	100.90	184.91
UNION TELEPHONE COMPANY INC.	AR	772.	347.97	42297.	54.79	0.3997	139.08	141.78
UNITED TELEPHONE CO. OF ARK. INC.	AR	14540.	259.52	72106.	4.96	0.3457	89.72	69.84
WALNUT HILL TELEPHONE COMPANY	AR	3789.	457.36	518461.	136.83	0.4652	212.77	251.17
CONTEL OF ARKANSAS	AR	53187.	396.86	3854172.	72.46	0.3006	119.30	171.68
YELCOT TEL. CO.,INC.	AR	2275.	314.49	73816.	32.45	0.3808	119.76	111.07
YELL COUNTY TELEPHONE COMPANY	AR	3742.	224.85	0.	0.	0.2295	51.60	56.21
GTC OF THE SW - ARKANSAS	AR	56626.	344.39	1874741.	33.11	0.2896	99.73	119.20
SOUTHWESTERN BELL-ARKANSAS	AR	634597.	305.24	8827043.	13.91	0.2855	87.15	90.22
ASSARIA TELEPHONE EXCHANGE INC.	KS	430.	288.55	8375.	19.48	0.3181	91.79	91.62
BLUE VALLEY TELEPHONE COMPANY	KS	2656.	284.72	46641.	17.56	0.2826	80.46	88.74
CUNNINGHAM TELEPHONE CO. INC.	KS	1464.	425.52	165355.	112.95	0.2990	127.23	219.33
ELKHART TELEPHONE COMPANY INC.	KS	1404.	195.82	0.	0.	0.5548	108.64	48.95
GOLDEN BELT TELEPHONE ASSN. INC.	KS	3680.	405.77	361156.	98.14	0.4788	194.28	199.58
HAVILAND TELEPHONE COMPANY INC.	KS	3604.	268.05	33243.	9.22	0.2887	77.39	76.24
H & B COMMUNICATIONS INC.	KS	933.	430.47	108843.	116.66	0.3346	144.03	224.28
HOME TELEPHONE COMPANY INC.	KS	1205.	449.76	158012.	131.13	0.2988	134.39	243.57
J. B. N. TELEPHONE COMPANY INC.	KS	1989.	293.69	43844.	22.04	0.2904	85.29	95.46
JETMORE TEL. CO.	KS	693.	403.03	66586.	96.08	0.2032	81.90	196.84
KANOKLA TEL. ASSOC. INC.- KS	KS	2239.	261.74	13594.	6.07	0.3774	98.78	71.51

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
KANSAS STATE TELEPHONE COMPANY	KS	5028.	225.47	0.	0.	0.2804	63.22	56.37
CONTINENTAL TELEPHONE CO OF KS,INC.	KS	40579.	442.59	5102902.	125.75	0.3199	141.58	236.40
MADISON TEL. CO. INC.- KS	KS	760.	518.19	138661.	182.45	0.3029	156.96	312.00
MOKAN DIAL, INC.- KS	KS	1727.	262.94	11522.	6.67	0.3344	87.93	72.41
MOUNDRIDGE TEL. CO.	KS	1928.	299.26	47876.	24.83	0.3049	91.25	99.65
PEOPLES MUTUAL TEL. CO.-KS	KS	951.	295.79	21963.	23.09	0.4502	133.16	97.04
CRAW-KAN TELEPHONE COOP INC- KS	KS	11375.	266.02	93405.	8.21	0.3067	81.59	74.72
RAINBOW TEL COOPERATIVE ASSN INC.	KS	1737.	254.02	3843.	2.21	0.2281	57.94	65.72
RURAL TEL. SERVICE CO.,INC.	KS	6414.	412.66	662602.	103.31	0.2780	114.72	206.47
S & T TEL. COOP. ASSN.	KS	1605.	669.90	475451.	296.23	0.4099	274.59	463.71
S & A TEL. CO.,INC.	KS	667.	304.27	18234.	27.34	0.2305	70.13	103.40
SOUTH CENTRAL TEL. ASSN. INC.-KS	KS	1109.	289.32	22024.	19.86	0.3131	90.59	92.19
SOUTHERN KANSAS TEL. CO.,INC.	KS	3276.	274.44	40684.	12.42	0.3073	84.33	81.03
SUNFLOWER TEL. CO.,INC.	KS	3188.	475.34	479208.	150.32	0.4635	220.32	269.15
TRI-COUNTY TEL. ASSN. INC.-KS	KS	3190.	261.24	18564.	5.82	0.2174	56.79	71.13
TWIN VALLEY TEL. INC.-KS	KS	2089.	471.89	308607.	147.73	0.2527	119.25	265.70
UNITED TELEPHONE CO OF KS	KS	64389.	265.67	258629.	4.02	0.4663	123.88	70.43
WAMEGO TELEPHONE COMPANY INC.	KS	3450.	252.32	4687.	1.36	0.2793	70.47	64.44
THE WHEAT STATE TEL. CO. INC.	KS	1789.	416.17	189524.	105.94	0.2970	123.60	209.98
WILSON TELEPHONE COMPANY INC.	KS	2124.	313.68	68050.	32.04	0.2499	78.39	110.46
ZENDA TELEPHONE COMPANY INC.	KS	257.	455.28	34763.	135.27	0.1985	90.37	249.09
TOTAH TELEPHONE CO. INC.	KS	1276.	580.72	292653.	229.35	0.4864	282.46	374.53
SOUTHWESTERN BELL-KANSAS	KS	957934.	221.20	0.	0.	0.3001	66.38	55.30
GTC OF THE MW - MISSOURI	MO	91378.	240.11	0.	0.	0.3115	74.79	60.03
MOKAN DIAL, INC.- MO	MO	525.	285.93	9536.	18.16	0.2389	68.31	89.65
BOURBEUSE TELEPHONE COMPANY	MO	1454.	229.02	0.	0.	0.2804	64.22	57.25
CARTER COUNTY TELEPHONE CO.	MO	1522.	596.81	367442.	241.42	0.3077	183.64	390.62
CITIZENS TELEPHONE CO - MISSOURI	MO	3335.	190.51	0.	0.	0.2356	44.89	47.63
EASTERN MISSOURI TELEPHONE CO.	MO	2335.	345.85	124207.	53.19	0.1849	63.95	139.65
FIDELITY TELEPHONE COMPANY	MO	9277.	211.09	0.	0.	0.2135	45.07	52.77
ALLTEL MISSOURI INC.	MO	18486.	265.15	143757.	7.78	0.2406	63.80	74.06
GOODMAN TEL. CO.	MO	1300.	282.98	21699.	16.69	0.4509	127.60	87.44
GRAND RIVER MUTUAL TEL CORP - MO	MO	11207.	206.42	0.	0.	0.2448	50.53	51.61
KINGDOM TELEPHONE COMPANY	MO	2465.	347.12	133484.	54.15	0.4115	142.84	140.93
MISSOURI TELEPHONE COMPANY	MO	13875.	281.26	219666.	15.83	0.2256	63.45	86.15
LE-RU TELEPHONE COMPANY	MO	857.	572.10	191009.	222.88	0.2803	160.36	365.91
MID-MISSOURI TELEPHONE CO.	MO	2926.	378.59	227510.	77.75	0.1772	67.09	172.40
MILLER TELEPHONE COMPANY - MO	MO	854.	274.96	10828.	12.68	0.2810	77.26	81.42
CONTINENTAL TELEPHONE CO OF MISSOURI	MO	109379.	456.19	12793392.	116.96	0.2844	129.74	231.01
HOLWAY TELEPHONE COMPANY	MO	607.	308.35	17832.	29.38	0.3212	99.04	106.46
NORTHEAST MISSOURI RURAL TEL. CO.	MO	3311.	475.03	496915.	150.08	0.2914	138.42	268.84
LATHROP TELEPHONE COMPANY	MO	965.	203.81	0.	0.	0.1845	37.60	50.95
ORCHARD FARM TELEPHONE COMPANY	MO	632.	345.85	33618.	53.19	0.2725	94.24	139.66
SENECA TEL. CO.	MO	2109.	272.05	23673.	11.22	0.3710	100.93	79.24
STOUTLAND TELEPHONE COMPANY	MO	804.	607.80	200728.	249.66	0.2865	174.14	401.61
UNITED TELEPHONE CO. OF MISSOURI	MO	151587.	276.52	1020121.	6.73	0.3507	96.97	75.86
WHEELING TELEPHONE COMPANY	MO	342.	377.14	26218.	76.66	0.1599	60.30	170.94
SOUTHWESTERN BELL-MISSOURI	MO	1794176.	195.92	0.	0.	0.2709	53.07	48.98
KANOKLA TELEPHONE ASSN.INC. - OK	OK	1135.	355.73	68792.	60.61	0.3600	128.06	149.54
SOUTH CENTRAL TEL. ASSN., INC.-OK	OK	394.	343.00	20118.	51.06	0.4331	148.55	136.81
ALLTEL OKLAHOMA, INC.	OK	10501.	414.93	1102696.	105.01	0.3450	143.15	208.74
CANADIAN VALLEY TELEPHONE CO.	OK	735.	439.04	90471.	123.09	0.3820	167.71	232.85
CARNEGIE TELEPHONE CO.INC.	OK	1599.	283.80	27342.	17.10	0.2706	76.80	88.05
CENTRAL OKLAHOMA TELEPHONE CO.	OK	2116.	338.22	100449.	47.47	0.1897	64.16	132.03
CHEROKEE TELEPHONE CO.	OK	3990.	177.28	0.	0.	0.4273	75.75	44.32
CHICKASAW TELEPHONE CO.	OK	7093.	288.36	137465.	19.38	0.3273	94.38	91.47
CHOUTEAU TELEPHONE CO.	OK	2572.	478.05	391828.	152.34	0.3183	152.16	271.86

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
OKLAHOMA COMMUNICATION SYSTEMS INC.	OK	12649.	415.49	1333575.	105.43	0.2367	98.35	209.30
CROSS TELEPHONE CO.	OK	6669.	307.99	194689.	29.19	0.2790	85.93	106.19
DOBSON TELEPHONE CO.	OK	4092.	563.46	885528.	216.40	0.4080	229.89	357.27
GRAND TELEPHONE CO. INC.	OK	1930.	328.64	77762.	40.29	0.4925	161.86	122.45
HINTON TELEPHONE CO.	OK	2911.	336.73	134936.	46.35	0.2171	73.10	130.54
MCLOUD TELEPHONE CO.	OK	5587.	303.17	149659.	26.79	0.1984	60.15	102.58
MID-AMERICA TEL.,INC.	OK	1471.	222.99	0.	0.	0.3359	74.90	55.75
OKLAHOMA ALLIED TELEPHONE COMPANY	OK	8906.	377.42	684634.	76.87	0.3260	123.04	171.23
OKLAHOMA TELEPHONE & TELEGRAPH INC.	OK	1698.	562.47	366193.	215.66	0.2837	159.57	356.28
PANHANDLE TELEPHONE COOPERATIVE INC.	OK	4406.	532.44	850978.	193.14	0.6183	329.21	326.25
PIONEER TEL. COOP. INC.	OK	36260.	270.15	372676.	10.28	0.2979	80.48	77.82
POTTAWATOMIE TELEPHONE CO.	OK	1760.	945.01	884520.	502.57	0.2578	243.62	738.82
TOTAH TELEPHONE CO. INC.	OK	1644.	653.36	466615.	283.83	0.3473	226.91	447.17
VALLIANT TELEPHONE COMPANY	OK	1622.	388.86	138604.	85.45	0.2804	109.04	182.67
GTC OF THE SW - OKLAHOMA	OK	94273.	352.02	3661169.	38.84	0.3302	116.24	126.84
SANTA ROSA TELEPHONE COOP. INC.	OK	636.	347.81	34771.	54.67	0.3423	119.06	141.62
SOUTHWESTERN BELL-OKLAHOMA	OK	1235158.	259.38	3018940.	2.44	0.3223	83.60	67.29
CAMERON TELEPHONE COMPANY - TEXAS	TX	957.	402.08	91266.	95.37	0.2304	92.64	195.89
ALTO TELEPHONE COMPANY	TX	1309.	279.20	19374.	14.80	0.1221	34.09	84.60
BIG BEND TELEPHONE COMPANY INC.	TX	2176.	957.93	1114672.	512.26	0.4114	394.09	751.74
BRAZORIA TEL. CO.	TX	4389.	334.72	196860.	44.85	0.1436	48.07	128.53
BRAZOS TELEPHONE COOPERATIVE INC.	TX	1133.	632.18	303585.	267.95	0.1639	103.62	425.99
CAP ROCK TELEPHONE COMPANY INC.	TX	2309.	560.80	495072.	214.41	0.1679	94.16	354.61
CENTRAL TEXAS TELEPHONE CO-OP. INC.	TX	3196.	886.31	1465489.	458.54	0.1437	127.36	680.11
COLEMAN COUNTY TELEPHONE CO-OP. INC.	TX	1752.	307.43	50661.	28.92	0.2014	61.92	105.77
COLMESNEIL TELEPHONE COMPANY	TX	1324.	500.53	224031.	169.21	0.1547	77.43	294.34
COLORADO VALLEY TELEPHONE CO-OP. INC.	TX	4651.	391.44	406445.	87.39	0.1401	54.84	185.25
COMANCHE COUNTY TEL COMPANY INC.	TX	4474.	275.66	58290.	13.03	0.1182	32.58	81.94
CONROE TELEPHONE COMPANY	TX	28385.	275.59	368810.	12.99	0.3390	93.42	81.89
DELL TELEPHONE CO-OP. INC.	TX	318.	2486.27	527408.	1658.51	0.6719	1670.53	2280.08
EASTEX TELEPHONE COOPERATIVE INC.	TX	19373.	365.92	1322216.	68.25	0.2025	74.10	159.73
ETEX TELEPHONE COOPERATIVE INC.	TX	8529.	267.53	76458.	8.96	0.1676	44.84	75.85
FIVE AREA TELEPHONE CO-OP. INC.	TX	1456.	832.16	608503.	417.93	0.2654	220.85	625.97
FORT BEND TELEPHONE COMPANY	TX	15474.	332.56	668882.	43.23	0.2801	93.15	126.37
GANADO TELEPHONE COMPANY INC.	TX	1268.	350.61	71984.	56.77	-0.0938	32.89	144.42
GTC OF THE SW - TEXAS	TX	945910.	315.41	15563672.	16.45	0.2504	78.98	95.31
GUADALUPE VALLEY TEL CO-OP. INC.	TX	12722.	343.86	657756.	51.70	0.2288	78.67	137.67
UNITED TELEPHONE CO. OF TEXAS INC.	TX	90159.	342.40	2850692.	31.62	0.1800	61.63	117.22
HILL COUNTRY TELEPHONE CO-OP. INC.	TX	8273.	489.53	1331614.	160.96	0.2503	122.53	283.34
INDUSTRY TELEPHONE COMPANY	TX	1518.	737.85	527044.	347.20	0.1396	103.00	531.66
KERRVILLE TELEPHONE COMPANY	TX	13310.	191.72	0.	0.	0.3400	65.19	47.93
LAKE DALLAS TELEPHONE COMPANY, INC.	TX	3613.	389.03	309201.	85.58	0.3330	129.55	182.84
LA WARD TELEPHONE EXCHANGE INC.	TX	850.	499.09	142907.	168.13	0.1663	83.00	292.90
LAKE TELEPHONE COMPANY	TX	908.	416.36	96318.	106.08	0.3321	138.27	210.17
LUFKIN TELEPHONE EXCHANGE INC.	TX	27098.	205.79	0.	0.	0.1756	36.14	51.45
MID-PLAINS RURAL TEL. CO-OP. INC.	TX	2119.	526.58	399942.	188.74	0.1961	103.26	320.38
CENTRAL TELEPHONE COMPANY OF TEXAS	TX	106525.	272.39	606865.	5.70	0.4390	119.58	73.79
MUENSTER TELEPHONE CORP. OF TEXAS	TX	1673.	263.97	12023.	7.19	0.1818	47.99	73.18
MUSTANG TELEPHONE COMPANY	TX	2024.	311.98	63133.	31.19	0.3212	100.21	109.19
ALLTEL TEXAS INC.	TX	2664.	274.02	32534.	12.21	0.2560	70.15	80.72
PEEPLES TELEPHONE COMPANY	TX	884.	500.46	149533.	169.16	0.1474	73.77	294.27
PEOPLES TELEPHONE COOPERATIVE - TX	TX	6189.	315.09	202651.	32.74	0.1621	51.08	111.52
POKA-LAMBRO RURAL TEL. CO-OP. INC.	TX	3288.	569.63	726747.	221.03	0.1391	79.24	363.44
RIVIERA TELEPHONE COMPANY INC.	TX	724.	678.45	219115.	302.65	0.2293	155.57	472.26
SOUTHWEST TEXAS TELEPHONE COMPANY	TX	1854.	569.25	409270.	220.75	0.1872	106.56	363.06
ROMAIN TELEPHONE COMPANY	TX	912.	621.68	237183.	260.07	0.2884	179.29	415.49
SANTA ROSA TEL. COOP.,INC.	TX	1547.	545.81	314300.	203.17	0.1715	93.61	339.62

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
SOUTH PLAINS TEL. COOP.,INC.	TX	3387.	420.26	369204.	109.01	0.1561	65.60	214.07
SUGAR LAND TEL. CO.	TX	21805.	289.95	439933.	20.18	0.3073	89.10	92.66
SWEENEY-OLD OCEAN TEL. CO.	TX	2667.	382.17	214532.	80.44	0.2194	83.85	175.98
TAYLOR TEL. CO-OP.,INC.	TX	5077.	321.46	182413.	35.93	0.1587	51.02	116.29
TEXAS-MIDLAND TELEPHONE COMPANY	TX	9015.	419.05	974505.	108.10	0.1773	74.30	212.86
CONTINENTAL TELEPHONE CO OF TEXAS	TX	133396.	422.28	12209931.	91.53	0.2194	92.65	197.10
TRINITY VALLEY TELEPHONE COMPANY INC.	TX	5047.	458.70	695658.	137.84	0.2439	111.88	252.51
VALLEY TELEPHONE CO-OP. INC. - TX	TX	3743.	833.96	1569367.	419.28	0.1851	154.37	627.77
VALLEY VIEW TEL. CO. - TX	TX	824.	316.44	27538.	33.42	0.2277	72.05	112.53
WEST TEXAS RURAL TEL. CO-OP. INC.	TX	1787.	575.92	403412.	225.75	0.3457	199.10	369.73
WES-TEX TELEPHONE CO-OP.	TX	3058.	379.31	239425.	78.29	0.1478	56.06	173.12
XIT RURAL TELEPHONE CO-OP. INC.	TX	914.	943.53	458329.	501.45	0.4778	450.82	737.33
E.N.M.R. TEL. COOP.,INC.-TX	TX	677.	246.94	0.	0.	0.4700	116.06	61.73
SOUTHWESTERN BELL-TEXAS	TX	6107770.	232.63	0.	0.	0.2347	54.60	58.16
ARIZONA TEL. CO.	AZ	1445.	777.85	545050.	377.20	0.8500	661.17	571.66
CITIZENS UTILITIES RURAL COMPANY INC.	AZ	34060.	407.15	3377779.	99.17	0.7250	295.18	200.96
UNIVERSAL TEL CO OF SOUTHWEST - AZ	AZ	845.	322.85	30949.	36.63	0.5762	186.03	117.34
VALLEY TELEPHONE COOPERATIVE INC-AZ	AZ	1663.	768.43	615534.	370.13	0.7298	560.80	562.24
CONTEL OF THE WEST - ARIZONA	AZ	20171.	556.80	4264311.	211.41	0.4194	233.52	350.61
NAVAJO COMMUNICATIONS CO. INC.- AZ	AZ	6856.	722.64	2302155.	335.79	0.8206	593.00	516.45
CONTEL OF CALIFORNIA - ARIZONA	AZ	4513.	429.97	524795.	116.29	0.6195	266.36	223.78
MOUNTAIN BELL-ARIZONA	AZ	1470491.	237.31	0.	0.	0.4364	103.56	59.33
SUNFLOWER TELEPHONE CO.,INC. - CO	CO	307.	568.39	67571.	220.10	0.4856	276.01	362.20
BIJOU TEL COOPERATIVE ASSOC. INC	CO	947.	271.26	10255.	10.83	0.4042	109.64	78.64
BLANCA TELEPHONE CO.	CO	405.	521.43	74878.	184.88	0.7548	393.58	315.24
DELTA COUNTY TELE-COMM INC.	CO	5723.	246.08	0.	0.	0.3020	74.31	61.52
EAGLE TELECOMMUNICATIONS INC.	CO	4506.	525.59	847133.	188.00	0.6331	332.75	319.40
EASTERN SLOPE RURAL TEL ASSN INC	CO	3867.	273.21	45654.	11.81	0.3875	105.87	80.11
EL PASO COUNTY MUTUAL TEL CO	CO	1533.	471.67	226211.	147.56	0.3710	174.99	265.48
FARMERS MUTUAL TEL CO - COLORADO	CO	290.	573.12	64859.	223.65	0.4998	286.45	366.93
HAXTUN TELEPHONE COMPANY	CO	1124.	270.28	11624.	10.34	0.3454	93.36	77.91
BIG SANDY TELECOM INC.	CO	644.	777.00	242505.	376.56	0.3445	267.68	570.81
NUCLA-NATURITA TEL. CO.	CO	1049.	429.44	121571.	115.89	0.4895	210.21	223.25
NUNN TEL. COMPANY	CO	246.	469.10	35826.	145.63	0.6123	287.23	262.91
PEETZ COOP. TEL. CO.	CO	195.	458.13	26794.	137.40	-0.4606	211.01	251.94
PHILLIPS COUNTY TEL. CO.	CO	1613.	144.29	0.	0.	0.4055	58.51	36.07
PLAINS COOPERATIVE TEL. ASSOC. INC.	CO	1428.	312.42	44856.	31.41	0.2633	82.26	109.52
THE RYE TELEPHONE CO. INC.	CO	1211.	468.42	175747.	145.13	0.4716	220.91	262.23
COLUMBINE TELEPHONE COMPANY	CO	551.	720.31	184058.	334.04	0.7117	512.65	514.12
STRASBURG TEL. CO.	CO	833.	311.96	25972.	31.18	0.4137	129.06	109.17
UNIVERSAL TEL. CO. OF COLORADO	CO	3601.	295.76	83116.	23.08	0.7651	226.29	97.02
WIGGINS TEL. ASSOC.	CO	1089.	349.07	60560.	55.61	0.2942	102.70	142.88
MOUNTAIN BELL-COLORADO	CO	1654412.	194.80	0.	0.	0.4298	83.73	48.70
CONTEL OF THE WEST - IDAHO	ID	11242.	593.57	2686732.	238.99	0.4912	291.56	387.38
ALBION TEL. CO. INC.	ID	837.	718.51	278462.	332.69	0.4192	301.20	512.32
CAMBRIDGE TEL. CO.,INC.-ID	ID	832.	562.15	179228.	215.42	0.4220	237.23	355.96
CUSTER TEL. COOPERATIVE INC.	ID	1429.	333.67	62968.	44.06	0.8500	283.62	127.48
GEM STATE UTILITIES CORP-ID	ID	927.	775.06	347720.	375.10	0.5202	403.18	568.87
CENTURY TELEPHONE OF IDAHO	ID	2149.	489.01	345052.	160.56	0.3911	191.25	282.82
MIDVALE TEL. EXCH. INC.	ID	289.	647.79	80819.	279.65	0.3190	206.64	441.60
PROJECT MUTUAL TEL. COOP. ASSN.	ID	6239.	171.88	0.	0.	0.3126	53.73	42.97
ROCKLAND TEL. CO.,INC.	ID	373.	693.74	117166.	314.12	0.3460	240.04	487.55
RURAL TEL. CO.	ID	173.	1068.05	102909.	594.85	0.3911	417.72	861.86
TROY TELEPHONE COMPANY	ID	670.	413.23	69501.	103.73	0.5082	210.00	207.04
SILVER STAR TEL. CO. INC.-ID	ID	278.	737.29	96404.	346.78	0.6617	487.86	531.10
GTC OF THE NW, INC - IDAHO	ID	63860.	340.33	1919977.	30.07	0.5724	194.80	115.15
INLAND TELEPHONE COMPANY - ID	ID	167.	876.41	75336.	451.11	0.3950	346.18	670.22

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
MOUNTAIN BELL-IDAHO	ID	308059.	249.00	0.	0.	0.3535	88.02	62.25
PACIFIC NORTHWEST BELL-IDAHO	ID	21736.	242.48	0.	0.	0.3787	91.83	60.62
BLACKFOOT TEL. COOPERATIVE INC.	MT	4133.	506.49	717802.	173.68	0.5518	279.48	300.30
INTERBEL TEL. COOPERATIVE INC.	MT	839.	410.16	85098.	101.43	0.6120	251.02	203.97
LINCOLN TEL. CO. INC.	MT	635.	335.74	28963.	45.61	0.5509	184.96	129.54
MID-RIVERS TEL. COOPERATIVE INC.	MT	6138.	599.17	1492682.	243.19	0.3390	203.12	392.98
NEMONT TELEPHONE COOP.- MONTANA	MT	2300.	545.20	466238.	202.71	0.4141	225.77	339.01
NORTHERN TEL. COOP INC.- MT	MT	1367.	563.60	295968.	216.51	0.5608	316.07	357.41
NORTHWESTERN TELEPHONE SYSTEMS, INC.	MT	26107.	286.25	478455.	18.33	0.4711	134.85	89.89
PROJECT TEL. CO.	MT	2446.	436.51	296428.	121.19	0.4051	176.83	230.32
RANGE TEL. COOP INC.-MT	MT	2536.	726.72	859322.	338.85	0.5017	364.60	520.53
SOUTHERN MONTANA TEL. CO.	MT	622.	954.30	316930.	509.53	0.7929	756.66	748.11
3-RIVERS TEL. COOPERATIVE INC.	MT	7573.	379.16	592043.	78.18	0.4883	185.14	172.97
TRIANGLE TEL. COOPERATIVE ASSN. INC.	MT	7918.	416.26	839337.	106.00	0.3505	145.90	210.07
VALLEY RURAL TEL. COOP. ASSN.-MT	MT	713.	789.51	275174.	385.94	0.8135	642.26	583.31
GTC OF THE NW, INC - MONTANA	MT	5440.	334.71	243933.	44.84	0.4653	155.74	128.52
MOUNTAIN BELL-MONTANA	MT	296856.	282.84	2466726.	8.31	0.4450	125.86	79.02
DELL TELEPHONE CO-OP. INC.-NM	NM	207.	1882.60	249592.	1205.76	0.2804	527.88	1676.41
GTC OF THE SW - NEW MEXICO	NM	38383.	310.36	1166006.	30.38	0.4534	140.72	107.97
VALLEY TELEPHONE COOPERATIVE INC-NM	NM	1009.	647.68	282086.	279.57	0.6384	413.48	441.49
CONTEL OF THE WEST - NEW MEXICO	NM	24233.	564.67	5266069.	217.31	0.4414	249.24	358.48
BACA VALLEY TEL. CO.	NM	578.	1365.39	472719.	817.85	0.6777	925.33	1159.20
E.N.M.R. TEL COOP. INC.-NM	NM	8360.	825.93	3454828.	413.26	0.4199	346.81	619.74
LA JICARITA RURAL TEL. COOP. INC.	NM	1343.	581.81	309112.	230.17	0.2587	150.51	375.62
LEACO RURAL TEL. COOPERATIVE INC.	NM	763.	921.27	369873.	484.76	0.6042	556.63	715.08
WESTERN NEW MEXICO TEL. CO., INC.	NM	3878.	1213.31	2729315.	703.79	0.4677	567.47	1007.12
PENASCO VALLEY TEL. COOPERATIVE INC.	NM	1799.	1124.28	1146004.	637.02	0.6144	690.76	918.09
ROOSEVELT COUNTY RURAL TEL. COOP.,INC.	NM	1432.	562.19	308524.	215.45	0.3628	203.96	356.00
UNIVERSAL TEL CO OF SOUTHWEST- NM	NM	2638.	297.48	63160.	23.94	0.4901	145.80	98.31
NAVAJO COMMUNICATIONS CO INC.-NM	NM	2987.	857.00	1303994.	436.56	0.7887	675.91	650.81
MOUNTAIN BELL-NEW MEXICO	NM	503433.	231.13	0.	0.	0.3607	83.37	57.78
CONTEL OF THE WEST - UTAH	UT	14024.	459.95	1946134.	138.77	0.3933	180.90	253.76
NAVAJO COMMUNICATIONS COMPANY - UT	UT	270.	857.41	117954.	436.87	0.8500	728.80	651.22
CENTRAL UTAH TEL. INC.	UT	730.	207.94	0.	0.	0.1952	40.59	51.99
EMERY COUNTY FARMERS UNION TEL ASSN	UT	2343.	222.32	0.	0.	0.2667	59.29	55.58
KAMAS-WOODLAND TEL. CO.	UT	1197.	325.80	45680.	38.16	0.2465	80.31	119.61
SKYLINE TELECOM	UT	519.	174.43	0.	0.	0.1443	25.17	43.61
SOUTH CENTRAL UTAH TEL. ASSN. INC.	UT	2084.	249.77	182.	0.09	0.4529	113.12	62.53
UINTAH BASIN TEL. ASSN. INC.	UT	2476.	439.08	304842.	123.12	0.3042	133.57	232.89
UTAH-WYOMING TELECOM - UT	UT	460.	413.55	47827.	103.97	0.6028	249.29	207.36
MOUNTAIN BELL-UTAH	UT	632886.	175.26	0.	0.	0.3195	55.99	43.81
UNITED TELEPHONE CO. OF THE WEST-WY	WY	5527.	226.46	0.	0.	0.5004	113.32	56.62
RANGE TEL. COOPERATIVE INC.	WY	1420.	581.29	326281.	229.78	0.6419	373.13	375.10
UTAH-WYOMING TELECOM WY	WY	300.	248.38	0.	0.	0.8300	206.15	62.09
DUBOIS TELEPHONE EXCHANGE INC.	WY	1030.	593.04	245749.	238.59	0.8016	475.38	386.85
MEDICINE BOW TEL. CO. INC.	WY	284.	258.18	1219.	4.29	0.7947	205.18	68.84
SILVER STAR TEL. CO.- WY	WY	1013.	223.83	0.	0.	0.8200	183.54	55.96
UNION TELEPHONE CO.	WY	2950.	337.37	138180.	46.84	0.7944	268.01	131.18
VALLEY TEL. CO.-WY	WY	604.	536.84	118649.	196.44	0.8400	450.94	330.65
WYOMING TELEPHONE CO. INC.	WY	3067.	292.17	65279.	21.28	0.7820	228.48	94.33
MOUNTAIN BELL-WYOMING	WY	216941.	399.86	16208527.	74.71	0.5670	226.72	174.68
UNITED TELEPHONE CO OF THE NW - WA	WA	40649.	343.77	2099099.	51.64	0.4063	139.68	137.58
ASOTIN TELEPHONE COMPANY - WA	WA	836.	423.50	93159.	111.43	0.2743	116.17	217.31
TELEPHONE UTILITIES OF WA INC.	WA	59448.	310.51	905262.	15.23	0.4385	136.16	92.86
COWICHE TELEPHONE CO. INC.	WA	1332.	279.41	19854.	14.91	0.3049	85.19	84.76
ELLENSBURG TELEPHONE COMPANY	WA	12292.	193.22	0.	0.	0.2973	57.44	48.30
GTC OF THE NW, INC - WASHINGTON	WA	425896.	218.18	0.	0.	0.3275	71.45	54.54

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
HAT ISLAND TELEPHONE COMPANY	WA	40.	360.57	2570.	64.24	0.2804	101.10	154.38
HOOD CANAL TELEPHONE COMPANY	WA	617.	384.55	50731.	82.22	0.4681	180.01	178.36
INLAND TELEPHONE COMPANY - WA	WA	1267.	408.66	127083.	100.30	0.4471	182.71	202.47
KALAMA TELEPHONE COMPANY	WA	1429.	313.24	45469.	31.82	0.4831	151.32	110.13
LEWIS RIVER TELEPHONE COMPANY INC.	WA	1896.	376.41	144321.	76.12	0.4405	165.81	170.22
MASHELL TELEPHONE COMPANY INC.	WA	1527.	385.37	126497.	82.84	0.2840	109.45	179.18
PENINSULA TELECOMMUNICATIONS, INC.	WA	3691.	263.90	26396.	7.15	0.3488	92.05	73.13
PIONEER TELEPHONE COMPANY	WA	758.	652.87	214862.	283.46	0.3059	199.71	446.68
ST. JOHN TELEPHONE CO.	WA	547.	287.94	10485.	19.17	0.2390	68.82	91.15
TENINO TEL. CO.	WA	1841.	378.21	142620.	77.47	0.2353	88.99	172.02
TOLEDO TELEPHONE COMPANY INC.	WA	1180.	375.80	89280.	75.66	0.2331	87.60	169.61
CONTEL OF THE NORTHWEST INC.- WA	WA	38623.	468.51	5607646.	145.19	0.3305	154.84	262.32
WESTERN WAHKIAKUM COUNTY TEL COMPANY	WA	834.	341.90	41893.	50.23	0.3079	105.27	135.71
WHIDBEY TEL. CO.	WA	5246.	316.96	176688.	33.68	0.2804	88.88	112.92
YELM TELEPHONE COMPANY	WA	4198.	252.33	5736.	1.37	0.2859	72.14	64.45
PACIFIC NORTHWEST BELL-WASHINGTON	WA	1631685.	168.74	0.	0.	0.3024	51.03	42.19
C P NATIONAL CORP. - OREGON	OR	9606.	381.52	768001.	79.95	0.5099	194.54	175.33
BEAVER CREEK COOPERATIVE TEL. CO.	OR	2901.	278.71	42227.	14.56	0.2566	71.52	84.23
TELEPHONE UTILITIES OF OREGON INC.	OR	31421.	437.72	3836479.	122.10	0.3863	169.09	231.53
CANBY TELEPHONE ASSOCIATION	OR	6808.	195.01	0.	0.	0.2996	58.43	48.75
CLEAR CREEK MUTUAL TELEPHONE CO.	OR	2480.	255.11	6840.	2.76	0.2535	64.67	66.54
COLTON TELEPHONE COMPANY	OR	826.	353.00	48369.	58.56	0.3343	118.01	146.81
CASCADE UTILITIES INC.	OR	6392.	261.87	39203.	6.13	0.3213	84.14	71.60
RTI/HALSEY TEL. CO.	OR	590.	384.57	48522.	82.24	0.4308	165.67	178.38
HELIX TELEPHONE COMPANY	OR	223.	537.47	43911.	196.91	0.4696	252.40	331.28
HOME TELEPHONE COMPANY	OR	579.	601.19	141683.	244.70	0.3382	203.32	395.00
TRANS-CASCADES TELEPHONE COMPANY	OR	151.	1386.01	125831.	833.32	0.5113	708.67	1179.82
MOLALLA TELEPHONE COMPANY	OR	4057.	283.58	68929.	16.99	0.2601	73.76	87.88
MONROE TELEPHONE COMPANY	OR	586.	259.63	2940.	5.02	0.4267	110.79	69.93
NEHALEM TELEPHONE AND TELEGRAPH	OR	1372.	258.46	6076.	4.43	0.4674	120.80	69.04
NORTH STATE TELEPHONE COMPANY - OR	OR	351.	433.29	41691.	118.78	0.3554	153.99	227.10
OREGON TELEPHONE CORPORATION	OR	1257.	292.08	26697.	21.24	0.4209	122.93	94.26
PINE TELEPHONE SYSTEM INC. - OR	OR	597.	489.46	96061.	160.91	0.2951	144.44	283.27
PIONEER TELEPHONE COOPERATIVE	OR	8938.	232.10	0.	0.	0.4153	96.39	58.03
SCIO MUTUAL TEL. ASSOCIATION	OR	1268.	286.24	23230.	18.32	0.2435	69.70	89.88
STAYTON COOP. TEL CO	OR	4205.	228.88	0.	0.	0.3199	73.22	57.22
UNITED TELEPHONE CO OF THE NW - OR	OR	39430.	316.44	1317691.	33.42	0.4209	133.19	112.53
ASOTIN TELEPHONE COMPANY - OREGON	OR	36.	953.14	18312.	508.67	0.8500	810.17	746.95
GTC OF THE NW, INC - OREGON	OR	225067.	212.69	0.	0.	0.3854	81.97	53.17
CONTEL OF THE NORTHWEST INC.- OR	OR	18511.	400.21	1739481.	93.97	0.3099	124.03	194.02
MALHEUR HOME TELEPHONE COMPANY	OR	9626.	281.21	152129.	15.80	0.3812	107.20	86.11
PACIFIC NORTHWEST BELL-OREGON	OR	916660.	200.19	0.	0.	0.3276	65.58	50.05
CALAVERAS TELEPHONE COMPANY	CA	1205.	545.44	244486.	202.89	0.2484	135.49	339.25
CONTEL OF CALIFORNIA - CALIFORNIA	CA	214123.	391.16	14600875.	68.19	0.2765	108.16	165.98
C P NATIONAL CORP. - CALIFORNIA	CA	10714.	363.14	708894.	66.17	0.2863	103.97	156.95
CAPAY VALLEY TELEPHONE SYSTEM INC.	CA	380.	412.01	39069.	102.81	0.2831	116.64	205.82
CITIZENS UTILITIES CO. OF CALIF.	CA	46508.	525.20	8729893.	187.71	0.2259	118.64	319.01
CALIFORNIA-OREGON TELEPHONE CO	CA	1909.	480.72	294647.	154.35	0.4721	226.95	274.52
DUCOR TELEPHONE COMPANY	CA	540.	466.13	77439.	143.40	0.2041	95.14	259.94
EVANS TELEPHONE COMPANY	CA	5988.	337.29	280103.	46.78	0.1754	59.16	131.10
FORESTHILL TELEPHONE COMPANY	CA	1204.	502.08	205127.	170.37	0.2646	132.85	295.89
GENERAL TEL CO OF CALIFORNIA	CA	2657860.	254.24	3082974.	1.16	0.2489	63.28	64.72
HAPPY VALLEY TELEPHONE COMPANY	CA	2202.	578.70	501698.	227.84	0.1582	91.55	372.51
HORNITOS TELEPHONE COMPANY	CA	242.	1402.55	204664.	845.72	0.2550	357.65	1196.35
KERMAN TELEPHONE COMPANY	CA	3613.	299.89	90849.	25.14	0.1152	34.55	100.12
THE PONDEROSA TELEPHONE COMPANY	CA	4524.	703.49	1454151.	321.43	0.1796	126.35	497.30
ROSEVILLE TELEPHONE COMPANY	CA	52027.	197.01	0.	0.	0.1821	35.88	49.25

TABLE 3.3 (Cont.)

NECA NTS COST DATA FOR 1985 - INDIVIDUAL STUDY AREAS

NAME	ST	LOOPS	URRPL	HCA	HCAPL	SPF	CIRRPL	NIRRPL
SIERRA TELEPHONE COMPANY, INC.	CA	8962.	503.93	1539312.	171.76	0.1760	88.69	297.74
THE SISKIYOU TELEPHONE CO.	CA	2536.	560.00	542216.	213.81	0.3307	185.19	353.81
TUOLUMNE TELEPHONE COMPANY	CA	3784.	963.90	1955317.	516.73	0.2678	258.13	757.71
THE VOLCANO TELEPHONE COMPANY	CA	6535.	348.20	359170.	54.96	0.1881	65.50	142.01
WEST COAST TEL. CO. OF CALIFORNIA	CA	7861.	264.69	59316.	7.55	0.3986	105.51	73.72
PINNACLES TELEPHONE COMPANY	CA	104.	564.10	22556.	216.88	0.4592	259.03	357.91
PACIFIC BELL	CA	11248480.	210.29	0.	0.	0.2496	52.49	52.57
GEM STATE UTILITIES CORP-NV	NV	249.	834.47	104497.	419.67	0.6780	565.77	628.28
RURAL TEL. CO.	NV	70.	546.36	14251.	203.58	0.3911	213.68	340.17
CONTEL OF CALIFORNIA - NEVADA	NV	15069.	363.08	996320.	66.12	0.8300	301.35	156.89
C P NATIONAL CORP. - NEVADA	NV	8716.	401.02	824325.	94.58	0.8200	328.84	194.83
CENTRAL TELEPHONE COMPANY - NEVADA	NV	291175.	152.97	0.	0.	0.5886	90.04	38.24
CHURCHILL CO. TEL. & TEL. SYSTEM	NV	6777.	299.15	167913.	24.78	0.6460	193.25	99.57
LINCOLN COUNTY TELEPHONE SYSTEM INC.	NV	1474.	286.76	27389.	18.58	0.6709	192.39	90.27
MOAPA VALLEY TELEPHONE COMPANY	NV	1674.	223.23	0.	0.	0.7200	160.73	55.81
NEVADA TELEPHONE-TELEGRAPH COMPANY	NV	2144.	318.79	74172.	34.60	0.8500	270.97	114.29
RIO VIRGIN TELEPHONE COMPANY	NV	709.	351.72	40836.	57.60	0.3500	123.10	145.53
NEVADA BELL	NV	165232.	328.30	3477187.	21.04	0.6264	205.65	103.12
DIAMOND STATE TEL. CO.	DE	333039.	181.76	0.	0.	0.3452	62.74	45.44
C & P TELEPHONE COMPANY OF WA D.C.	DC	779688.	97.40	0.	0.	0.4376	42.62	24.35
NEW ENGLAND TEL.-RI	RI	465782.	198.29	0.	0.	0.2868	56.87	49.57
ANCHORAGE TELEPHONE UTILITY	AK	118877.	153.12	0.	0.	0.5502	84.25	38.28
ARCTIC SLOPE TEL. ASSOCIATION COOP.INC.	AK	1358.	793.97	528652.	389.29	0.8500	674.87	587.78
BRISTOL BAY TELEPHONE COOP. INC.	AK	766.	950.50	388122.	506.69	0.8500	807.93	744.31
BUSH-TELL INC.	AK	417.	555.44	87733.	210.39	0.4879	271.00	349.25
COPPER VALLEY TEL. COOP. INC.	AK	2570.	609.63	645158.	251.03	0.6443	392.79	403.44
CORDOVA TELEPHONE COOPERATIVE, INC.	AK	1163.	356.40	71068.	61.11	0.8400	299.37	150.21
FAIRBANKS MUNICIPAL UTILITIES SYSTEM	AK	21199.	439.80	2621387.	123.66	0.5035	221.44	233.61
GENERAL TELEPHONE COMPANY OF ALASKA	AK	10687.	161.95	0.	0.	0.5829	94.40	40.49
GLACIER STATE TELEPHONE COMPANY	AK	22680.	833.30	9498027.	418.78	0.6877	573.06	627.11
INTERIOR TELEPHONE COMPANY INC.	AK	1995.	770.76	741899.	371.88	0.8500	655.15	564.57
JUNEAU & DOUGLAS TELEPHONE COMPANY	AK	14485.	365.31	981940.	67.79	0.6485	236.90	159.12
KETCHIKAN PUBLIC UTILITIES	AK	6036.	569.00	1331307.	220.56	0.6584	374.63	362.81
MATANUSKA TELEPHONE ASSOC., INC.	AK	25632.	465.08	3655619.	142.62	0.4458	207.33	258.89
MUKLUK TEL. COMPANY, INC.	AK	521.	942.23	260750.	500.48	-0.2804	264.20	736.04
NUSHAGAK TELEPHONE COOPERATIVE, INC.	AK	1057.	439.66	130597.	123.55	0.6702	294.66	233.47
OTZ TELEPHONE COOPERATIVE, INC.	AK	1198.	590.97	283974.	237.04	0.3712	219.37	384.78
SITKA TELEPHONE COMPANY	AK	6072.	462.58	854595.	140.74	0.6799	314.51	256.39
TELEPHONE UTILITIES OF ALASKA	AK	2029.	120.67	0.	0.	0.8500	102.57	30.17
UNITED UTILITIES INC.	AK	3043.	553.10	634876.	208.63	0.3207	177.38	346.91
YUKON TELEPHONE COMPANY, INC.	AK	340.	758.85	123403.	362.95	0.4349	330.02	552.66
HAWAIIAN TELEPHONE COMPANY	HI	467493.	171.66	0.	0.	0.2885	49.52	42.92
PUERTO RICO COMMUNICATION AUTHORITY	PR	67747.	211.59	0.	0.	0.3500	74.06	52.90
PUERTO RICO TEL. CO.	PR	579353.	229.74	0.	0.	0.3500	80.41	57.44
VIRGIN ISLANDS TELEPHONE CORPORATION	VI	35289.	363.21	2336773.	66.22	0.4634	168.31	157.02

4. Network Usage and Growth

The amount of traffic carried on the public switched network is a vital concern. To monitor use of this network, NECA provides monthly reports to the Commission on the volumes of switched interstate traffic. To supplement this information, the Joint Board recommended that the larger local telephone companies also provide, on an annual basis, the total switched minutes of use, the interstate switched minutes of use, and the Subscriber Plant Factor (SPF), Subscriber Line Usage (SLU), and Dial Equipment Minutes (DEM) factors.

The Joint Board recognized that much of this data was not previously collected by any single entity and that reports could be received directly from the companies involved or could be received and consolidated by some other entity (such as NECA or Bell Communications Research). The staff has been conducting ongoing discussions with NECA which we believe will result in the receipt of all of this information.

This section includes data on switched telephone traffic as reflected in the National Exchange Carrier Association (NECA) calculations of carrier common line (CCL) minutes of use. In addition, this section addresses criteria for use in selecting alternative measures of telephone network usage.

To provide a comprehensive monitoring program, a determination must be made as to the appropriate measurement parameters that will be utilized in the compilation of usage data. First, the monitoring plan will focus on the effects of increases in the subscriber line charges and corresponding decreases in interstate rates. Second, it will attempt to identify the effects on the usage of the network associated with other federal policy decisions such as additional high cost assistance, bypass, and future depooling mechanisms. To include these other usage impacts, the data apparently should be categorized to derive the appropriate conclusions.

At the outset we must determine the appropriate "minutes of use" measure that will be used in the automatic reporting of usage data. In ascertaining growth in usage of the network, such data should not necessarily be limited to one variable. Currently, there are many approaches to measuring network usage and growth, such as access minutes, billed minutes of use, and minutes used to calculate SLU and DEM factors. NECA currently provides periodic usage reports to the FCC on total interstate switched access minutes, and the LECs report annually for each study area on total switched minutes of use, interstate switched minutes of use, and allocation factors (SLU and DEM). We seek comments on the appropriate minutes of use measure(s) to include in future reports.

Table 4.1 shows the latest available figures on minutes of use for interstate traffic as reported by NECA, derived from the Common Line Pool

CCL earned revenues. Tables 4.2 and 4.3 show the figures for large (Tier 1) and small (non-Tier 1) companies, respectively. This is just one possible measure of network usage and growth. Since June 1986, these figures do not count the (originating) minutes from the closed end of WATS.

NATIONAL EXCHANGE CARRIER ASSOCIATIOI

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JULY, 1987

MINUTES OF USE DERIVED FROM N E C A CCL EARNED REVENUES

TOTAL COMMON LINE POOL

(MOUS REPORTED IN MILLIONS)

TABLE 4.1

	PREMIUM CCL MOUS			NONPREMIUM CCL MOUS		
MONTH/YR	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JUN 84	N/A	N/A	14,545.271	N/A	N/A	1,827.007
JUL 84	N/A	N/A	12,566.294	N/A	N/A	1,886.240
AUG 84	N/A	N/A	13,135.947	N/A	N/A	1,911.089
SEP 84	N/A	N/A	12,319.793	N/A	N/A	1,720.966
OCT 84	N/A	N/A	13,161.263	N/A	N/A	2,018.484
NOV 84	N/A	N/A	13,090.910	N/A	N/A	2,010.440
DEC 84	N/A	N/A	13,378.258	N/A	N/A	1,990.827
JAN 85	N/A	N/A	13,115.551	N/A	N/A	2,176.491
FEB 85	N/A	N/A	12,998.244	N/A	N/A	2,182.451
MAR 85	N/A	N/A	13,418.828	N/A	N/A	2,283.537
APR 85	N/A	N/A	13,756.632	N/A	N/A	2,270.295
MAY 85	N/A	N/A	13,810.066	N/A	N/A	2,028.473
JUN 85	N/A	N/A	13,905.208	N/A	N/A	2,295.878
JUL 85	N/A	N/A	14,146.095	N/A	N/A	2,190.338
AUG 85	N/A	N/A	14,581.879	N/A	N/A	1,994.761
SEP 85	N/A	N/A	14,460.450	N/A	N/A	1,974.894
OCT 85	N/A	N/A	15,217.848	N/A	N/A	1,782.924
NOV 85	N/A	N/A	14,292.044	N/A	N/A	1,781.988
DEC 85	N/A	N/A	15,011.427	N/A	N/A	1,767.001
JAN 86	N/A	N/A	15,368.739	N/A	N/A	1,370.195
FEB 86	N/A	N/A	14,709.181	N/A	N/A	1,398.075
MAR 86	N/A	N/A	15,845.832	N/A	N/A	1,349.804
APR 86	N/A	N/A	15,910.881	N/A	N/A	1,272.507
MAY 86	N/A	N/A	16,009.873	N/A	N/A	1,189.877
JUN 86	5,834.988	8,001.022	13,836.010	505.327	846.539	1,351.867
JUL 86	6,338.150	8,155.628	14,493.779	500.620	757.661	1,258.283
AUG 86	6,156.357	8,216.866	14,373.223	429.297	694.206	1,123.502
SEP 86	6,266.515	8,201.289	14,467.804	352.663	674.138	1,026.801
OCT 86	6,607.215	8,590.828	15,198.043	313.508	678.229	991.737
NOV 86	6,398.720	8,180.025	14,578.745	336.737	697.043	1,033.780
DEC 86	7,023.661	8,858.726	15,882.387	292.812	662.695	955.507
JAN 87	7,046.770	8,564.588	15,611.359	352.069	635.333	987.402
FEB 87	6,822.879	8,606.217	15,429.096	358.524	663.514	1,022.038
MAR 87	7,486.967	9,512.000	16,998.967	365.990	749.338	1,115.328
APR 87	7,240.726	9,189.461	16,430.187	363.423	696.285	1,059.708
MAY 87	7,037.275	8,958.025	15,995.300	290.737	664.950	955.687

NATIONAL EXCHANGE CARRIER ASSOCIATION

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JULY, 1987

MINUTES OF USE DERIVED FROM N E C A CCL EARNED REVENUES

TIER 1

(MOUS REPORTED IN MILLIONS)

	PREMIUM CCL MOUS			NONPREMIUM CCL MOUS		
MONTH/YR	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JUN 84	N/A	N/A	13,685.597	N/A	N/A	1,813.710
JUL 84	N/A	N/A	11,795.348	N/A	N/A	1,875.077
AUG 84	N/A	N/A	12,345.332	N/A	N/A	1,898.366
SEP 84	N/A	N/A	11,542.403	N/A	N/A	1,707.373
OCT 84	N/A	N/A	12,347.081	N/A	N/A	2,001.905
NOV 84	N/A	N/A	12,291.952	N/A	N/A	1,994.562
DEC 84	N/A	N/A	12,562.210	N/A	N/A	1,971.868
JAN 85	N/A	N/A	12,302.152	N/A	N/A	2,158.260
FEB 85	N/A	N/A	12,201.878	N/A	N/A	2,164.499
MAR 85	N/A	N/A	12,600.320	N/A	N/A	2,264.289
APR 85	N/A	N/A	12,915.205	N/A	N/A	2,249.389
MAY 85	N/A	N/A	12,959.438	N/A	N/A	2,007.246
JUN 85	N/A	N/A	13,003.811	N/A	N/A	2,271.726
JUL 85	N/A	N/A	13,262.800	N/A	N/A	2,165.717
AUG 85	N/A	N/A	13,654.621	N/A	N/A	1,970.276
SEP 85	N/A	N/A	13,556.494	N/A	N/A	1,950.496
OCT 85	N/A	N/A	14,308.461	N/A	N/A	1,758.134
NOV 85	N/A	N/A	13,391.958	N/A	N/A	1,757.515
DEC 85	N/A	N/A	14,091.451	N/A	N/A	1,742.111
JAN 86	N/A	N/A	14,473.571	N/A	N/A	1,348.131
FEB 86	N/A	N/A	13,849.691	N/A	N/A	1,371.942
MAR 86	N/A	N/A	14,924.711	N/A	N/A	1,323.998
APR 86	N/A	N/A	14,986.520	N/A	N/A	1,246.235
MAY 86	N/A	N/A	15,070.919	N/A	N/A	1,162.952
JUN 86	5,458.554	7,460.661	12,919.215	496.061	831.201	1,327.262
JUL 86	5,949.858	7,655.992	13,605.851	491.096	743.246	1,234.341
AUG 86	5,760.210	7,688.142	13,448.352	418.099	676.097	1,094.197
SEP 86	5,877.428	7,692.087	13,569.514	340.707	651.284	991.991
OCT 86	6,209.199	8,073.321	14,282.520	302.287	653.953	956.240
NOV 86	5,999.452	7,669.550	13,669.003	324.203	671.106	995.309
DEC 86	6,613.786	8,341.716	14,955.502	282.124	638.511	920.635
JAN 87	6,594.872	8,015.652	14,610.524	338.491	610.789	949.280
FEB 87	6,420.967	8,097.953	14,518.920	345.484	639.360	984.844
MAR 87	7,066.349	8,978.149	16,044.498	354.581	725.961	1,080.542
APR 87	6,812.413	8,643.387	15,455.799	351.396	673.213	1,024.609
MAY 87	6,613.982	8,413.419	15,027.401	279.555	639.785	919.341

TABLE 4.2

NATIONAL EXCHANGE CARRIER ASSOCIATION

SUPPLEMENTAL REPORT OF COMMON LINE POOL RESULTS
REPORTED AS OF JULY, 1987

MINUTES OF USE DERIVED FROM N E C A CCL EARNED REVENUES

NON-TIER 1

(MOUS REPORTED IN MILLIONS)

	PREMIUM CCL MOUS			NONPREMIUM CCL MOUS		
MONTH/YR	ORIGINATING	TERMINATING	TOTAL	ORIGINATING	TERMINATING	TOTAL
JUN 84	N/A	N/A	859.674	N/A	N/A	13.297
JUL 84	N/A	N/A	770.946	N/A	N/A	11.163
AUG 84	N/A	N/A	790.615	N/A	N/A	12.723
SEP 84	N/A	N/A	777.390	N/A	N/A	13.593
OCT 84	N/A	N/A	812.183	N/A	N/A	16.579
NOV 84	N/A	N/A	798.958	N/A	N/A	15.879
DEC 84	N/A	N/A	816.048	N/A	N/A	18.959
JAN 85	N/A	N/A	813.399	N/A	N/A	18.231
FEB 85	N/A	N/A	796.366	N/A	N/A	17.952
MAR 85	N/A	N/A	818.509	N/A	N/A	19.248
APR 85	N/A	N/A	840.427	N/A	N/A	20.906
MAY 85	N/A	N/A	850.629	N/A	N/A	21.227
JUN 85	N/A	N/A	901.397	N/A	N/A	24.152
JUL 85	N/A	N/A	883.295	N/A	N/A	24.671
AUG 85	N/A	N/A	927.258	N/A	N/A	24.486
SEP 85	N/A	N/A	903.956	N/A	N/A	24.398
OCT 85	N/A	N/A	909.387	N/A	N/A	24.790
NOV 85	N/A	N/A	900.086	N/A	N/A	24.474
DEC 85	N/A	N/A	919.975	N/A	N/A	24.890
JAN 86	N/A	N/A	894.675	N/A	N/A	22.064
FEB 86	N/A	N/A	858.993	N/A	N/A	26.133
MAR 86	N/A	N/A	920.619	N/A	N/A	25.806
APR 86	N/A	N/A	923.847	N/A	N/A	26.272
MAY 86	N/A	N/A	938.433	N/A	N/A	26.925
JUN 86	376.434	540.361	916.796	9.265	15.339	24.605
JUL 86	388.292	499.635	887.928	9.525	14.415	23.941
AUG 86	396.147	528.724	924.871	11.198	18.108	29.306
SEP 86	389.087	509.202	898.289	11.955	22.855	34.810
OCT 86	398.015	517.508	915.523	11.221	24.275	35.497
NOV 86	399.268	510.474	909.742	12.535	25.937	38.472
DEC 86	409.875	517.010	926.885	10.688	24.183	34.871
JAN 87	451.899	548.936	1,000.835	13.578	24.544	38.122
FEB 87	401.912	508.263	910.176	13.039	24.154	37.193
MAR 87	420.617	533.851	954.469	11.409	23.377	34.786
APR 87	428.313	546.075	974.388	12.026	23.072	35.099
MAY 87	423.293	544.606	967.899	11.182	25.165	36.347

TABLE 4.3

5. Rates and Revenues

This section contains a variety of information on telephone price indexes, rate levels and the revenues received by local telephone companies. First, it describes and presents a series of price indexes maintained by the Bureau of Labor Statistics. Second, it discusses rate levels and changes in average rate levels. Finally, it summarizes rate cases pending before state regulatory commissions -- which provide important indicators of future local rate changes.

CHANGES IN THE PRICE OF TELEPHONE SERVICES:

The Bureau of Labor Statistics (BLS) collects a variety of information on telephone service as part of three separate programs -- the Consumer Price Index (CPI), the Producer Price Index (PPI), and the Consumer Expenditure Survey. The Consumer Expenditure Survey, which is used to provide weights for consumer price indexes, indicates that the average American household spends about as much on long distance service as on local service.

A. Long Term Trends in the Overall Price of Telephone Service:

A price index for telephone services was first published in 1935. Since that time, telephone prices have tended to increase at a slower pace than most other prices. Table 5.1 shows long run changes in telephone prices, the overall CPI and each of the seven major categories that currently constitute the CPI, and for several services that are often characterized as public utilities. The price of telephone service has increased less rapidly than almost any other category over both the entire 50 year period for which indexes are available and for the most recent ten year period. [3]

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3 For a description of the methodologies used by the BLS in calculating price indexes, see Primer and Sourcebook on Telephone Price Indexes and Rate Levels, published by the FCC in April 1987. The Primer contains, in its appendices, detailed index numbers for each of the telephone price indexes maintained by the BLS from the inception of each index through the end of 1986.

Table 5.1
Annual Rate of Change For Various Price Indexes*

	1935 to 1986	1976 to 1986
CPI all goods and services	4.16%	6.77%
CPI major categories		
- food & beverages	**	5.80
- housing	**	7.51
- apparel & upkeep	4.24	3.48
- transportation	4.11	6.38
- medical care	4.99	8.91
- entertainment	**	5.54
- other goods & services	**	7.85
CPI telephone service	2.30	4.66
CPI public transportation	5.13	9.36
CPI piped gas	4.11	10.62
CPI electricity	2.49	7.59
CPI sewer & water maintenance	**	8.32

* Exponential rates calculated using the first and last years of each comparison period.

** Series not established until after 1935.

B. Recent Annual Changes in the Overall Price of Telephone Service:

Changes in telephone prices tend to lag behind other price changes. Overall inflation in the American economy peaked in 1979 and 1980. In contrast, the price of telephone services rose most rapidly during the years 1981 through 1984, with the rate of increase declining in 1985 and again in 1986. In Table 5.2, the annual rate of change is shown for the overall CPI and the CPI for telephone service for each of the last ten years.

Table 5.2
Annual Rate of Change in Price Indexes

	CPI: All goods & Services	CPI: Telephone Services
1977 *	6.8%	.5%
1978 *	9.0	.8
1979 *	13.3	.8
1980 *	12.4	4.5
1981 *	8.9	11.8
1982 *	3.9	7.3
1983 *	3.8	3.6
1984 *	4.0	9.2
1985 *	3.8	4.7
1986 *	1.1	2.7
1987 **	3.5	-0.1

* Measured from December to December.

** Measured from December 1986 to August 1987. This represents the percentage change occurring during these eight months rather than an annual rate of change.

C. Price Indexes for Local Service

The Bureau of Labor Statistics publishes a number of price indexes related to local telephone service, two of which are important to the monitoring program. The CPI index of local telephone charges is based on a broadly defined "market basket" that includes monthly service charges, message unit charges, equipment, installation, enhanced services (such as tone dialing and call waiting), taxes, subscriber line charges, and all other consumer expenditures associated with telephone services except long distance charges. In contrast, the PPI index of monthly residential rates is much more narrowly defined. It is based only on monthly service charges for residential service, optional touch tone service, and subscriber line charges. It excludes taxes and all other expenditures. The annual rates of change for these two indexes are presented in Table 5.3. In the CPI index, about half of the 1984 increase occurred during January, reflecting adjustments made at the time of AT&T's divestiture of its operating companies. In January 1987, when the PPI index was revised to include subscriber line charges, revised index numbers for 1985 and 1986 were issued based on the new methodology.

Table 5.3
Annual Rate of Change in Price Indexes
For Local Telephone Service

	CPI: All Local Charges	PPI: Monthly Service Charges For Residential Service
1978 *	1.5%	3.1%
1979 *	1.7	1.6
1980 *	7.1	7.1
1981 *	12.6	15.6
1982 *	10.8	9.0
1983 *	3.2	0.2
1984 *	17.1	10.4
1985 *	8.9	12.4
1986 *	7.1	8.9
1987 **	5.6	2.6

* Measured from December to December.

** Measured from December 1986 to August 1987. This represents the percentage change occurring during these eight months rather than an annual rate of change.

D. Price Indexes for Long Distance Service:

CPI data is available for intrastate toll and interstate toll services since December 1977. Table 5.4 presents the annual changes in these series for recent years. The high inflation of the late 1970's is reflected in the long distance price increases beginning in 1980. Intrastate toll rates have stabilized since that time, and interstate rates have steadily fallen since 1983.

Table 5.4
Annual Rate of Change in Price Indexes
For Long Distance Service *

	CPI: Interstate Toll calls	CPI: Intrastate Toll calls
1978 *	-0.8%	1.3%
1979 *	-0.8	0.2
1980 *	3.5	6.1
1981 *	14.6	4.1
1982 *	2.6	7.4
1983 *	1.4	3.7
1984 *	-4.3	0.5
1985 *	-3.8	0.3
1986 *	-9.5	0.4
1987 **	-13.1	-2.9

* Measured from December to December.

** Measured from December 1986 to August 1987. This represents the percentage change occurring during these eight months rather than an annual rate of change.

E. Price Index Data for the Most Recent Annual Period

The Bureau of Labor Statistics has now released price index data covering the period through August 1987. For the most recent three month period (which includes the July 1 increase in subscriber line charges), the CPI for telephone services increased 0.6% while the CPI for all items increased 1.2%. During the most recent twelve month period, the price of telephone services declined slightly (-1.4%) while the overall rate of inflation was 4.3%. These changes are shown in Table 5.5 along with the most recent quarterly and annual changes in the CPI subindexes and the most relevant PPI series.

Both the quarterly and annual data show increases in local charges and declines in long distance prices. For the most recent annual period, local charges have increased at a slower rate than inflation and, when local charges are combined with price changes in long distance services, the overall price of telephone service purchased by the typical household has declined slightly. Monthly data for the CPI telephone indexes are shown in Table 5.6 for the period beginning in January 1983. Monthly data for PPI telephone price indexes are shown in Table 5.7.

Table 5.5
Most Recent Price Index Changes

Index	Most Recent Three Months *	Most Recent Annual Period **
CPI: Local Service	2.8%	3.5%
PPI: Local Residential Service	3.4	2.5
CPI: Interstate Toll	-4.4	-13.1
PPI: Interstate MTS	-3.3	-13.5
CPI: Intrastate Toll	-1.3	-3.0
PPI: Intrastate MTS	-0.8	-1.4
CPI: Telephone Services	0.6	-1.4
CPI: All Items	1.2	4.3

* Measured from May 1987 to August 1987. This represents the percentage change occurring during these three months rather than an annual rate of change.
** Measured from August 1986 to August 1987.

TABLE 5.6

Consumer Price Index Data (CPI-U)

		TELEPHONE SERVICES	LOCAL SERVICE	INTERSTATE	INTRASTATE	ALL ITEMS
1983	January	171.4	140.6	121.0	114.0	293.1
	February	171.7	139.9	121.8	115.9	293.2
	March	172.1	140.3	121.8	116.3	293.4
	April	171.9	139.9	121.8	116.6	295.5
	May	172.8	140.9	121.8	117.1	297.1
	June	173.4	141.8	121.8	117.4	298.1
	July	173.8	141.8	121.9	118.2	299.3
	August	173.9	142.1	121.9	118.3	300.3
	September	174.4	142.6	121.9	118.6	301.8
	October	174.1	142.2	121.5	119.0	302.6
	November	175.4	143.8	121.5	119.8	303.1
	December	174.3	142.2	121.4	119.7	303.5
1984	January	183.3	154.3	121.4	122.1	305.2
	February	186.8	159.0	122.4	122.1	306.6
	March	185.9	157.7	122.4	122.0	307.3
	April	186.4	157.8	122.3	123.7	308.8
	May	186.7	158.3	122.6	123.1	309.7
	June	187.1	160.1	118.5	124.8	310.7
	July	188.1	162.3	116.2	125.9	311.7
	August	188.4	163.3	116.1	124.9	313.0
	September	189.8	165.3	116.1	124.8	314.5
	October	190.0	165.5	116.3	124.8	315.3
	November	191.1	166.9	116.2	125.4	315.3
	December	190.4	166.5	116.2	124.1	315.5
1985	January	190.8	167.1	116.2	124.0	316.1
	February	189.1	164.6	116.2	123.9	317.4
	March	191.3	167.7	116.2	124.3	318.8
	April	191.1	167.5	116.2	124.2	320.1
	May	191.4	167.7	116.8	123.9	321.3
	June	195.7	175.4	113.5	124.4	322.3
	July	197.2	177.9	111.6	125.9	322.8
	August	198.3	179.2	111.9	126.3	323.5
	September	198.6	179.6	111.9	126.3	324.5
	October	198.7	179.7	111.9	126.5	325.5
	November	199.5	181.0	111.8	126.4	326.6
	December	199.3	181.4	111.8	124.7	327.4
1986	January	200.1	182.4	111.8	125.0	328.4
	February	200.4	182.7	111.8	125.3	327.5
	March	201.3	183.9	111.8	125.4	326.0
	April	203.5	187.3	111.8	125.1	325.3
	May	203.5	187.3	111.8	125.2	326.3
	June	207.3	196.0	105.5	125.0	327.9
	July	207.3	198.1	101.5	125.0	328.0
	August	207.4	198.3	101.2	125.3	328.6
	September	206.6	197.3	101.2	124.7	330.2
	October	207.7	198.8	101.2	125.1	330.5
	November	205.3	195.4	101.2	124.8	330.8
	December	204.7	194.3	101.2	125.2	331.1
1987	January	203.7	199.0	92.4	125.4	331.2
	February	203.3	198.8	92.4	124.6	334.4
	March	203.2	198.6	92.4	124.6	335.9
	April	203.9	199.7	92.3	124.5	337.7
	May	203.3	199.7	91.9	123.2	338.7
	June	201.9	198.8	91.9	120.3	340.1
	July	203.8	203.9	88.0	121.9	340.8
	August	204.5	205.2	87.9	121.6	342.7

TABLE 5.7

Price indexes for selected telephone services, January 1972-August 1987
(1972 = 100)

4811-1 Local service

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	98.1	99.1	99.1	99.7	100.6	100.8	100.8	99.6	100.5	100.5	100.5	100.5
1973	102.7	100.8	101.3	101.5	101.9	101.9	101.9	101.9	102.9	102.9	104.8	104.8	105.9
1974	108.4	107.4	107.7	107.7	107.7	107.7	107.7	107.7	109.2	109.2	109.6	109.6	109.6
1975	112.8	109.8	111.4	111.6	111.6	111.9	112.0	112.8	113.1	114.1	114.1	115.4	115.4
1976	118.4	117.0	117.7	117.7	117.9	118.3	118.9	118.8	118.9	118.9	118.9	119.1	119.1
1977	118.5	119.1	117.6	118.2	118.4	118.4	118.5	118.4	118.4	118.4	118.4	119.1	119.5
1978	121.9	120.2	120.9	120.9	120.9	120.9	120.9	120.9	122.0	123.7	123.7	123.7	124.3
1979	123.8	124.3	123.9	123.0	123.0	123.0	123.0	123.0	123.3	123.9	124.4	124.4	126.1
1980	127.5	125.3	125.4	125.4	126.0	126.2	126.2	126.2	126.2	127.2	130.4	132.5	133.0
1981	141.2	133.4	135.3	135.6	136.3	138.0	138.0	141.5	142.6	144.3	146.9	151.0	151.0
1982	154.6	149.5	149.5	149.5	151.2	152.3	153.3	153.3	153.7	158.8	160.4	160.9	162.3
1983	163.7	162.6	162.9	163.4	163.1	162.6	163.3	163.8	163.9	164.3	164.7	164.8	164.8
1984	179.5	171.2	171.2	171.2	171.9	172.1	177.9	182.2	185.7	187.6	187.7	187.5	187.6
1985	197.4	188.9	190.7	190.6	190.6	191.0	200.6	200.8	201.6	202.2	202.3	204.8	204.8
1986	212.7	206.5	206.7	206.7	206.7	206.7	216.6	216.6	216.9	217.5	217.5	216.8	216.8
1987		216.7	216.6	216.8	216.1	215.9	215.9	220.2	220.1				

4811-111 Local service, residential

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	97.7	98.9	98.9	99.5	100.7	100.9	100.9	99.7	100.7	100.7	100.7	100.7
1973	102.9	101.0	101.5	101.6	102.0	102.0	102.0	102.0	103.0	103.0	105.2	105.2	106.7
1974	108.8	108.1	108.3	108.3	108.3	108.3	108.3	108.3	109.4	109.3	109.7	109.7	109.7
1975	113.3	109.9	112.0	112.2	112.2	112.4	112.5	113.4	113.6	114.8	114.8	116.2	116.2
1976	118.9	118.0	118.0	118.0	118.2	118.6	119.2	119.2	119.3	119.3	119.3	119.6	119.6
1977	119.3	119.6	118.3	119.0	119.3	119.3	119.3	119.1	119.1	119.1	119.1	120.1	120.5
1978	122.1	120.2	121.0	121.0	121.0	121.0	121.0	121.0	122.2	124.2	124.2	124.2	124.2
1979	123.4	124.0	123.6	122.5	122.5	122.5	122.5	122.5	122.8	123.5	124.0	124.0	126.2
1980	128.0	125.3	125.3	125.4	125.9	126.3	126.3	126.3	126.3	127.4	131.6	134.5	135.1
1981	144.1	135.6	137.0	137.3	138.2	140.0	140.0	144.5	145.1	147.4	151.2	156.2	156.2
1982	160.6	154.9	154.9	154.9	156.7	157.3	158.4	158.4	159.0	165.8	167.8	168.4	170.2
1983	169.6	168.7	169.0	169.5	169.2	168.4	169.1	169.6	169.7	170.2	170.5	170.6	170.6
1984	182.4	177.8	177.8	177.7	177.7	178.1	178.6	181.4	186.0	188.7	188.7	188.3	188.4
1985	202.6	189.8	191.9	191.9	191.9	192.3	208.8	209.2	210.4	211.0	211.0	211.7	211.7
1986	223.6	213.4	213.6	213.6	213.6	213.6	230.3	230.3	230.8	231.3	231.3	230.5	230.5
1987		230.1	230.0	230.3	229.2	228.9	228.9	236.9	236.6				

4811-112 Local service, business

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	97.8	98.7	98.7	99.8	100.7	100.8	100.8	99.3	100.8	100.9	100.9	100.9
1973	104.0	101.2	102.0	102.6	103.4	103.4	103.4	103.4	104.2	104.3	106.5	106.5	107.3
1974	111.1	109.2	109.8	109.8	109.8	109.8	109.8	109.9	112.2	112.4	113.4	113.4	113.4
1975	117.1	113.6	115.2	115.3	115.3	115.6	115.9	117.3	117.8	119.1	119.1	120.4	120.5
1976	123.9	122.9	122.9	122.9	123.4	123.8	124.3	124.3	124.4	124.4	124.4	124.5	124.5
1977	122.4	124.5	121.0	121.9	122.1	122.1	122.2	122.1	122.1	122.1	122.1	122.9	123.4
1978	126.0	123.4	124.5	124.5	124.5	124.5	124.5	124.5	126.2	128.8	128.8	128.8	128.8
1979	128.5	128.8	128.2	127.5	127.5	127.5	127.5	127.5	127.8	128.8	129.5	129.5	131.6
1980	132.9	130.4	130.4	130.5	130.9	131.3	131.3	131.3	131.4	133.0	136.7	138.2	139.2
1981	148.8	139.6	141.4	141.6	142.8	144.1	144.1	148.6	152.2	153.8	155.4	161.0	161.0
1982	162.7	157.7	157.7	157.7	159.7	160.1	161.4	161.4	162.0	167.2	168.4	169.0	170.3
1983	172.7	170.8	171.2	172.2	172.0	171.5	172.3	173.1	173.2	173.6	174.0	174.1	174.1
1984	200.4	180.3	180.3	180.5	183.7	183.7	208.1	211.0	213.7	215.8	215.9	215.9	216.0
1985	222.7	218.2	220.7	220.7	220.7	220.9	222.2	222.2	222.9	223.9	224.6	228.0	228.0
1986	232.9	230.8	231.3	231.3	231.3	231.3	234.0	234.0	234.1	234.6	234.6	233.6	233.6
1987		234.0	234.0	234.1	233.5	233.5	233.5	233.0	232.7				

TABLE 5.7 (Cont.)

4811-113 Local service, optional additional usage

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	99.5	100.4	100.4	100.4	100.4	100.9	100.9	99.4	99.4	99.4	99.4	99.4
1973	100.3	99.7	99.8	99.8	99.9	99.9	99.9	99.9	101.0	101.0	101.1	101.1	101.1
1974	104.6	103.3	103.6	103.6	103.6	103.6	103.6	103.6	106.0	106.0	106.0	106.0	106.0
1975	107.5	106.1	106.1	107.4	107.4	107.4	107.4	107.5	107.5	107.9	107.9	109.0	109.0
1976	110.3	109.0	109.4	109.4	109.4	110.2	110.8	110.8	110.8	110.8	110.8	110.8	110.9
1977	111.0	110.9	110.9	110.9	110.9	110.9	111.1	111.1	111.1	111.1	111.1	111.1	111.2
1978	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.6	117.7	117.7	117.7	117.7
1979	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7
1980	118.2	117.7	117.7	117.7	119.4	118.3	118.3	118.3	118.3	118.3	118.3	118.3	118.3
1981	123.2	118.5	123.1	123.1	123.1	123.8	123.8	123.8	123.8	123.8	123.8	124.1	124.1
1982	124.6	124.1	124.1	124.1	124.1	124.2	124.2	124.2	124.2	124.2	125.6	125.9	125.9
1983	126.2	125.9	125.9	125.9	125.7	125.7	126.2	126.2	126.2	126.2	127.0	127.0	127.0
1984	123.4	124.3	124.3	124.3	124.3	124.3	124.3	122.5	122.5	122.5	122.5	122.5	122.5
1985	123.8	122.5	122.5	122.5	122.5	122.5	122.5	122.5	122.5	122.5	122.5	130.2	130.2
1986	130.7	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	131.5	131.5	131.5	131.5
1987		131.5	131.5	131.5	131.5	131.5	131.5	131.5	131.5				

4811-114 Local service, coin

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.1	100.1	100.1	100.1
1973	101.2	100.1	100.1	100.1	100.1	100.1	100.1	100.1	101.5	101.5	103.4	103.4	103.7
1974	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.8	103.9	103.9	103.9	103.9	103.9
1975	104.3	103.9	103.9	103.9	103.9	103.9	103.9	103.9	103.9	104.6	104.9	105.2	105.2
1976	113.9	105.7	114.6	114.6	114.6	114.6	114.6	114.6	114.7	114.7	114.7	114.7	114.7
1977	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.7	114.8	114.9
1978	116.2	115.0	115.0	115.4	115.4	115.4	115.4	115.4	115.5	115.6	115.6	115.6	124.7
1979	124.3	124.7	124.5	124.2	124.2	124.2	124.2	124.2	124.2	124.2	124.3	124.3	124.5
1980	124.6	124.5	124.5	124.5	124.5	124.5	124.5	124.5	124.5	124.8	124.8	124.8	125.1
1981	128.2	125.1	125.3	125.9	126.0	129.1	129.1	129.1	129.3	129.5	130.0	130.0	130.0
1982	139.4	130.0	130.0	130.0	132.8	143.2	143.6	143.6	143.1	144.0	144.0	144.0	144.0
1983	162.6	161.0	161.0	161.0	160.9	161.8	162.9	163.2	163.2	163.4	164.3	164.5	164.5
1984	205.8	184.2	184.2	184.4	184.6	184.6	189.0	222.3	227.2	227.2	227.2	227.5	227.5
1985	230.6	228.2	228.9	228.9	228.9	230.5	230.7	230.7	230.8	231.2	231.3	233.8	233.8
1986	234.6	234.3	234.3	234.3	234.3	234.3	234.6	234.6	234.7	234.9	234.9	234.9	234.9
1987		235.0	234.9	234.9	234.9	234.9	234.9	235.0	234.9				

4811-2 Toll service

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	98.7	99.3	99.3	99.3	99.8	100.2	100.2	100.5	100.7	100.7	100.7	100.7
1973	102.9	100.7	102.4	102.5	102.5	102.5	102.5	102.5	103.4	103.4	103.8	103.8	104.3
1974	104.7	104.6	104.6	104.6	104.6	104.6	104.5	104.4	104.4	104.4	105.1	105.1	105.1
1975	111.6	105.4	105.4	111.6	111.6	111.6	111.6	112.3	113.1	113.1	113.5	114.7	114.8
1976	120.2	115.4	115.6	119.6	119.6	120.4	120.8	120.8	122.0	122.0	122.0	122.0	122.0
1977	123.5	123.3	123.1	123.1	123.2	123.2	123.3	123.1	123.1	124.2	124.3	124.3	124.3
1978	124.2	124.3	124.2	124.3	124.3	124.3	124.3	124.3	124.3	124.3	124.3	123.8	123.9
1979	123.2	123.3	123.2	123.2	123.3	123.2	123.1	123.1	123.1	123.1	123.4	123.3	123.3
1980	125.9	123.4	123.2	123.2	123.4	123.6	127.5	127.5	127.5	127.5	127.9	128.3	128.3
1981	134.8	129.1	129.0	129.0	129.0	128.7	128.7	139.2	139.2	141.0	141.3	141.3	142.1
1982	145.9	143.1	143.1	143.1	146.4	146.4	146.7	146.7	146.8	146.8	147.1	147.1	147.5
1983	149.3	148.8	148.8	149.0	148.9	149.0	149.3	149.4	149.4	149.4	149.8	149.8	149.8
1984	148.5	150.7	150.6	150.7	150.8	150.5	146.2	146.6	147.1	147.3	147.3	146.8	147.3
1985	147.1	147.6	147.6	147.6	148.1	150.0	146.3	146.3	146.6	146.5	146.5	146.6	146.1
1986	139.5	146.0	146.0	146.1	143.9	143.9	135.6	135.5	135.5	135.5	135.5	135.5	135.4
1987		128.5	128.2	128.2	128.1	128.1	127.8	125.6	125.5				

TABLE 5.7 (Cont.)

4811-211 Toll service, intrastate MTS

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	96.6	98.1	98.1	98.1	99.6	100.4	100.4	101.3	101.8	101.8	101.8	101.8
1973	103.3	101.9	102.1	102.1	102.1	102.1	102.1	102.1	104.2	104.2	105.4	105.4	106.3
1974	107.7	107.2	107.2	107.2	107.2	107.2	107.2	107.2	107.2	107.2	109.1	109.1	109.1
1975	113.8	109.8	109.8	111.6	111.6	111.6	111.6	113.5	115.4	115.4	116.4	119.3	119.3
1976	125.6	121.0	121.4	122.6	122.6	124.7	125.7	125.7	128.6	128.6	128.6	128.6	128.6
1977	131.9	132.2	131.5	131.5	131.8	131.8	132.0	132.0	132.0	132.0	132.0	132.0	132.0
1978	132.0	132.1	132.0	132.0	132.0	132.0	132.0	132.0	132.0	132.0	132.0	132.0	132.1
1979	131.6	132.1	131.9	131.9	131.9	131.9	131.5	131.5	131.5	131.5	131.5	131.2	131.2
1980	132.3	131.5	131.1	131.1	131.3	132.1	132.2	132.2	132.2	132.2	133.2	134.1	134.2
1981	137.3	136.0	136.0	136.0	136.0	135.1	135.1	135.1	135.1	139.5	140.4	140.4	142.4
1982	145.6	144.9	144.9	144.9	145.2	145.3	145.5	145.5	145.5	145.6	146.4	146.4	147.4
1983	152.1	151.1	151.1	151.7	151.5	151.5	152.2	152.2	152.3	152.3	153.2	153.2	153.2
1984	157.0	155.9	155.9	155.9	156.1	155.3	155.9	157.0	158.3	158.9	158.9	157.5	158.8
1985	161.9	159.6	159.6	159.6	160.8	162.6	162.8	162.8	163.4	163.3	163.3	163.4	162.1
1986	157.3	162.1	162.2	162.3	156.6	156.6	155.4	155.4	155.4	155.5	155.5	155.5	155.5
1987		155.5	154.7	154.7	154.5	154.5	154.1	153.2	153.3				

4811-212 Toll service, interstate MTS

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1973	102.9	100.0	103.2	103.2	103.2	103.2	103.2	103.1	103.1	103.1	103.1	103.1	103.1
1974	103.0	103.1	103.1	103.1	103.1	103.1	102.9	102.9	102.9	102.9	102.9	102.9	102.9
1975	111.7	102.9	102.9	113.5	113.5	113.5	113.5	113.5	113.5	113.5	113.5	113.5	113.5
1976	118.9	113.5	113.5	120.2	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0	120.0
1977	120.6	120.0	120.0	120.0	120.0	120.0	120.0	119.7	119.7	121.9	121.9	121.9	121.9
1978	121.9	121.9	121.9	121.9	121.9	121.9	121.9	121.9	121.9	121.9	121.9	121.9	121.9
1979	120.8	120.9	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8	120.8
1980	124.6	120.8	120.8	120.8	120.8	120.8	127.4	127.4	127.4	127.4	127.4	127.4	127.4
1981	137.5	127.4	127.4	127.4	127.4	127.4	127.4	147.7	147.7	147.7	147.7	147.7	147.7
1982	152.0	147.7	147.7	147.7	153.4	153.4	153.4	153.4	153.4	153.4	153.4	153.4	153.4
1983	153.4	153.4	153.4	153.4	153.4	153.4	153.4	153.4	153.4	153.4	153.4	153.4	153.4
1984	148.8	153.4	153.4	153.4	153.4	153.4	145.6	145.6	145.6	145.6	145.6	145.6	145.6
1985	143.3	145.6	145.6	145.6	145.6	147.9	141.3	141.3	141.3	141.3	141.3	141.3	141.3
1986	133.0	141.3	141.3	141.3	141.3	141.3	127.2	127.1	127.1	127.1	127.1	127.1	127.1
1987		113.8	113.8	113.8	113.8	113.8	113.8	110.0	110.0				

4811-213 Toll service, international MTS

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	99.4
1973	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
1974	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
1975	98.7	99.4	99.4	99.4	99.4	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
1976	100.0	98.3	98.3	99.0	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5	100.5
1977	99.6	100.5	100.5	100.5	100.5	100.5	100.5	98.7	98.7	98.7	98.7	98.7	98.7
1978	94.9	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1	84.0	84.0
1979	85.5	84.0	84.0	84.0	84.0	83.3	83.3	83.3	82.7	82.7	91.4	91.4	91.4
1980	94.0	90.9	90.9	90.9	90.9	90.9	96.6	96.2	96.2	96.2	96.2	96.2	96.2
1981	89.4	96.2	95.2	95.2	95.2	95.2	95.2	83.5	83.5	83.5	83.5	83.5	83.5
1982	88.5	83.5	83.5	83.5	83.5	83.5	91.4	91.4	92.3	92.3	92.3	92.3	92.3
1983	92.4	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.7	92.7	92.7
1984	89.2	92.7	92.5	92.5	92.5	92.5	87.3	86.8	86.8	86.8	86.8	86.8	86.8
1985	86.6	86.8	86.8	86.8	86.8	86.8	86.5	86.5	86.5	86.5	86.5	86.5	86.5
1986	84.2	84.5	84.2	84.2	84.2	84.2	84.1	84.1	84.1	84.1	84.1	84.1	84.1
1987		84.1	84.1	84.0	84.0	84.1	84.1	84.0	84.0				

TABLE 5.7 (Cont.)

4811-214 Toll service, WATS

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	99.8	99.8	99.8	99.8	99.8	99.8	99.8	100.3	100.3	100.3	100.3	100.0
1973	101.8	100.1	100.1	101.5	101.5	101.5	101.5	101.5	102.6	102.6	102.6	102.8	103.5
1974	103.1	103.7	103.7	103.7	103.7	103.7	103.7	102.5	102.5	102.7	102.6	102.6	102.6
1975	105.3	102.7	102.7	104.5	105.2	105.2	105.2	105.2	105.5	106.4	106.4	106.8	108.0
1976	109.8	108.0	108.0	109.6	109.6	109.6	109.6	109.6	110.8	110.8	110.8	110.8	110.8
1977	111.6	111.1	111.3	111.3	111.4	111.4	111.4	111.4	111.6	111.6	112.3	112.3	112.4
1978	112.9	112.4	112.4	113.0	112.7	112.7	112.7	113.2	113.2	113.2	113.2	113.2	113.2
1979	113.8	113.2	113.2	113.2	113.6	113.6	113.6	113.6	114.3	114.3	114.3	114.3	114.4
1980	116.9	114.4	114.4	114.4	114.6	114.6	118.4	118.4	118.4	118.4	118.8	118.8	118.8
1981	124.9	120.2	120.2	120.2	120.2	120.5	120.5	128.9	128.9	129.8	129.8	129.8	129.9
1982	132.5	129.9	129.9	129.9	133.5	133.4	133.4	133.4	133.5	133.5	133.1	133.1	133.1
1983	132.9	131.8	131.8	131.8	131.8	132.4	132.7	133.7	133.7	133.7	133.7	133.7	133.7
1984	129.6	132.2	132.2	132.7	132.6	132.8	127.2	127.6	127.5	127.5	127.6	127.6	127.9
1985	125.3	127.6	127.6	127.9	127.8	128.2	123.5	123.5	123.5	123.7	123.7	123.6	123.4
1986	117.8	123.4	123.3	123.3	123.5	124.0	114.5	114.3	113.9	113.5	113.5	113.4	112.7
1987		110.5	110.4	110.4	110.4	110.4	108.9	108.9	107.7				

4811-214-11 Toll service, Interstate WATS

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1973	101.7	100.0	100.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0	102.0
1974	101.1	102.0	102.0	102.0	102.0	102.0	102.0	100.3	100.3	100.3	100.3	100.3	100.3
1975	102.5	100.3	100.3	102.9	102.9	102.9	102.9	102.9	102.9	102.9	102.9	102.9	102.9
1976	104.7	102.9	102.9	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1
1977	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1
1978	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1
1979	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1	105.1
1980	108.2	105.1	105.1	105.1	105.1	105.1	110.5	110.5	110.5	110.5	110.5	110.5	110.5
1981	116.3	110.5	110.5	110.5	110.5	110.5	110.5	122.1	122.1	122.1	122.1	122.1	122.1
1982	125.8	122.1	122.1	122.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1
1983	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1	127.1
1984	122.7	127.1	127.1	127.1	127.1	127.1	119.6	119.6	119.6	119.6	119.6	119.6	119.6
1985	115.8	119.6	119.6	119.6	119.6	119.6	113.1	113.1	113.1	113.1	113.1	113.1	113.1
1986	105.9	113.1	113.1	113.1	113.1	113.9	100.8	100.6	100.6	100.6	100.6	100.6	100.6
1987		97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5				

4811-214-12 Toll service, Intrastate WATS

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	99.1	99.3	99.3	99.3	99.3	99.3	99.3	101.3	101.3	101.3	101.3	100.1
1973	102.2	100.2	100.2	100.2	100.2	100.2	100.2	100.2	104.0	104.0	104.0	104.9	107.6
1974	108.4	108.1	108.1	108.1	108.1	108.1	108.1	108.1	108.1	109.1	108.8	108.8	108.8
1975	112.8	108.8	108.8	108.5	111.2	111.2	111.2	111.2	112.4	115.7	115.7	117.0	121.6
1976	123.4	121.6	121.6	121.6	121.6	121.6	121.6	121.6	126.0	126.0	126.0	126.0	126.0
1977	128.8	126.7	127.5	127.5	127.9	127.9	127.9	127.9	128.8	128.8	131.4	131.4	131.7
1978	133.6	131.7	131.5	133.8	132.7	132.7	132.7	134.4	134.7	134.7	134.7	134.7	134.7
1979	136.8	134.7	134.7	134.7	136.0	136.0	136.0	136.0	138.5	138.5	138.5	138.5	139.0
1980	139.6	139.0	138.8	138.8	139.7	139.7	139.3	139.3	139.3	139.3	140.7	140.7	140.7
1981	147.6	145.9	145.8	145.8	145.8	146.9	146.9	146.9	146.9	150.1	150.1	150.1	150.5
1982	149.9	150.5	150.5	150.5	150.5	149.9	149.9	149.9	150.4	150.4	148.9	148.9	148.9
1983	148.2	144.1	144.3	144.3	144.3	146.3	147.6	151.2	151.2	151.2	151.2	151.2	151.1
1984	147.8	145.6	145.9	147.3	147.1	147.8	147.4	148.8	148.5	148.5	148.7	148.8	149.7
1985	150.5	148.8	148.8	149.7	149.5	151.0	151.1	151.1	151.1	151.8	151.6	151.2	150.6
1986	149.3	150.6	150.4	150.4	150.9	150.8	150.8	150.8	149.1	147.8	147.8	147.3	144.9
1987		144.9	144.4	144.4	144.4	144.4	139.1	139.0	134.7				

TABLE 5.7 (Cont.)

4811-311 Private lines, interstate

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1972	100.0	98.5	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1
1973	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	100.1	99.6
1974	99.5	99.6	99.6	99.6	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
1975	103.4	99.5	99.5	99.5	102.2	103.6	103.8	103.8	103.8	103.8	107.0	107.0	107.0
1976	108.2	107.0	107.0	108.7	109.0	109.0	108.3	108.3	108.3	108.3	108.3	108.3	108.3
1977	108.4	108.3	108.3	108.3	108.3	108.3	108.4	108.4	108.4	108.4	108.4	108.7	108.6
1978	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6
1979	108.5	108.6	108.6	108.6	108.7	108.7	108.7	108.7	108.7	108.3	108.3	108.3	108.3
1980	109.7	108.3	108.3	108.3	108.3	108.3	110.7	110.7	110.7	110.8	110.8	110.8	110.8
1981	133.5	110.8	110.8	110.8	110.8	117.2	117.2	153.3	153.3	154.5	154.5	154.5	154.5
1982	156.3	154.5	154.5	154.5	156.9	156.9	156.9	156.9	156.9	156.9	156.9	156.9	156.9
1983	157.0	156.9	156.9	156.9	156.9	156.9	156.9	156.9	156.9	156.9	156.9	156.9	158.4
1984	159.2	158.4	158.4	158.4	158.4	158.4	158.4	158.4	158.4	158.4	158.4	163.1	163.1
1985	165.9	163.1	163.1	159.2	159.2	168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.3
1986	168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.3
1987		168.3	168.3	168.3	168.3	168.3	168.3	168.3	168.3				

4811-911 Directory advertising

	Avg.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
1973	98.4	99.9	99.4	98.4	98.8	98.2	98.3	98.2	98.3	98.0	98.0	97.8	97.8
1974	104.3	97.5	97.8	99.1	101.0	103.0	105.0	105.4	105.9	107.3	109.1	109.9	110.6
1975	117.2	112.1	113.3	115.3	115.7	115.8	116.6	117.0	118.3	119.3	120.5	121.1	121.6
1976	125.1	122.6	122.3	122.9	123.5	125.1	125.6	125.7	125.9	126.4	126.8	127.1	127.4
1977	131.5	128.6	128.9	129.8	130.5	130.0	131.1	131.4	131.6	132.9	134.0	134.3	134.7
1978	139.3	134.9	135.6	136.1	137.0	139.2	140.7	141.1	140.7	140.2	141.3	142.2	143.2
1979	148.0	144.0	143.9	145.4	145.9	146.4	147.4	148.2	149.9	152.0	151.2	151.4	150.7
1980	155.4	151.6	152.8	153.0	153.3	153.8	154.6	155.3	156.2	157.0	158.5	159.2	159.5
1981	159.4	159.9	158.2	159.1	160.0	160.7	160.6	160.1	157.0	157.3	159.2	159.5	160.7
1982	172.0	164.7	166.4	166.4	168.5	170.4	170.2	171.2	173.4	175.6	177.5	179.3	180.2
1983	193.5	182.6	184.5	185.2	188.1	190.6	192.4	194.0	196.3	198.8	201.0	203.7	204.9
1984	216.9	207.9	208.9	209.9	212.4	214.8	219.0	220.0	222.0	219.5	221.5	222.8	224.4
1985	240.5	228.2	230.9	233.2	236.1	238.7	243.3	243.8	244.0	244.9	246.5	248.0	248.2
1986	257.1	248.7	250.5	251.9	253.5	256.4	258.4	258.7	259.7	260.8	261.3	262.2	262.7
1987		264.6	266.9	267.7	269.6	267.0	270.8	270.2	270.5				

INFORMATION ON RATE LEVELS:

This section describes the level of local and long distance rates in dollar terms. Local rates are regulated by state public utility commissions and vary greatly from area to area. Characterization of any rate as "typical" is therefore difficult. In most states, the Bell Operating Companies and larger independents charge higher rates in metropolitan areas than in rural areas -- a pricing practice that dates back to the turn of the century and is traditionally justified by the belief that the value of the service provided is higher for subscribers with larger local calling areas. California differs from most states in that rates are averaged throughout the state. There, the basic local rate is $8.25 for areas served by Pacific Bell and $9.75 for areas served by General of California.

Table 5.8 presents average local residential rates in October 1986 and April 1987. The averages are based on a survey using the same sampling areas and weights used by the BLS in constructing the Consumer Price Index. The price indexes published by the Bureau of Labor Statistics indicate percentage changes in the price of the telephone services. The BLS does not publish the actual level of rates. In April 1987, the national average for flat rate residential service was $12.51 monthly. Lower priced service alternatives are typically available, at an average monthly charge of $6.08. These are essentially the same rates as those in effect in October 1986. [4]

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4 The methodology used in conducting the survey is contained in the Primer and Sourcebook on Telephone Price Indexes and Rate Levels. The city specific data from the October survey is contained in Appendix 6 of the Primer. The city specific data from the April 1987 survey is contained in Local Rates Update, Mimeo No. 4768, released September 14, 1987.

Table 5.8
Average Monthly Telephone Rates*

	October 1986	April 1987	difference
Lowest generally available price**	$ 6.00	$ 6.08	$ .08
Federal and State SLCs	2.07	2.08	.01
Taxes	.80	.82	.02
Total	8.87	8.98	.11
Private rotary line, with unlimited local calling***	12.55	12.51	$(.04)
Federal and State SLCs	2.07	2.08	.01
Taxes	1.51	1.51	.00
Total	16.13	16.10	(.03)
Installation of rotary service where no premises visit is required	45.63	45.12	(.51)
Taxes	n.a	2.49	
Total	n.a	47.61	

* Rates include surcharges that result in revenues for the local telephone company. 911 service fees are included in taxes. October 1986 estimates have been revised to reflect these definitions, and to incorporatea few minor corrections. For an explanation of the methodology and the underlying data, see Local Rates Update.

** The lowest generally available price is the monthly charge for party line or measured service if available in the downtown area. (The private rotary line unlimited calling rate was used in the 5 cities where lower rates were not available.) The average does not include lifeline rates or subsidized rates which are available only to persons who meet selected criteria such as age or use of food stamps.

*** Unlimited calling service is not available in New York City or Chicago. Equivalent rates were estimated as the measured service rate with 100 message units.

In Table 5.9, the prices of several long distance calls are shown based on AT&T's tariffed rates during January 1984 and July 1987. During this period, AT&T's per minute charges for interstate calls have been reduced about 32% for the average residential customer.

Table 5.9
Changes in the Price of Directly Dialed Long Distance Calls
(AT&T Prices from Washington, D.C.)

For calls to:		Five minute calls			Ten minute calls		
		January 1984	July 1987	Percentage change	January 1984	July 1987	Percentage change
New York City*	Day	$2.14	$1.31	-39%	$4.09	$2.56	-37%
	Evening	1.28	.81	-37	2.45	1.59	-35
	Night	.86	.61	-29	1.64	1.20	-27
Atlanta & Chicago**	Day	2.34	1.50	-36	4.49	2.95	-34
	Evening	1.40	.93	-34	2.69	1.83	-32
	Night	.94	.70	-26	1.80	1.39	-23
Los Angeles***	Day	2.70	1.55	-43	5.15	3.05	-41
	Evening	1.62	.96	-41	3.09	1.90	-39
	Night	1.08	.72	-33	2.06	1.42	-31

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

** The prices shown apply to all calls with distances between 431 and 925 miles.

*** The prices shown apply to all calls with distances between 1911 and 3000 miles.

STATE TELEPHONE RATE CASES:

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

Beginning in 1984, the FCC has compiled quarterly data on major rate cases completed by state public utility commissions. On average, state commissions have tended to grant slightly less than half of the increases requested by telephone companies. During the first half of 1984, state commissions completed action on a number of extraordinarily large rate cases. After the first half of 1984, however, the level of activity in state cases has diminished substantially. In 1986, state commissions granted less than $300 million in revenue increases, compared with nearly $4 billion in 1984. During the first half of 1987, the dollar amount of rate reductions and refunds ordered by state commissions exceeded the dollar amount of rate increases authorized. The first half of 1987 represented the first period that this has occurred since the FCC began monitoring state rate cases.

Table 5.10
Completed Telephone Rate Cases
(Millions of Dollars)

		Revenue Increases Requested	Revenue Increases Granted	Percentage Granted
1984	First quarter	$ 2,033.8	$ 1,175.6	58%
	Second quarter	3,982.0	2,054.2	52
	Third quarter	531.0	284.5	54
	Fourth quarter	774.6	361.2	47
	Total	7,321.4	3,875.5	53%
1985	First quarter	471.4	246.3	52
	Second quarter	584.5	314.8	54
	Third quarter	648.5	286.5	44
	Fourth quarter	936.1	307.3	33
	Total	2,640.5	1,154.9	44%
1986	First quarter	826.2	58.0	7
	Second quarter	654.1	57.9	9
	Third quarter	276.3	173.3	63
	Fourth quarter	1.8	0.8	45
	Total	1,758.4	290.0	16%
1987	First quarter	14.2	(41.0)	N.M.*
	Second quarter	35.4	(92.2) (49.2)	N.M.*

* N.M.: Not meaningful

At the time of divestiture, rate cases pending before state public utility commissions totaled nearly $7 billion dollars. By June 1987, the

total cases pending had declined to about $100 million. Since rate cases typically take more than a year to be completed, the low level of pending cases should indicate a correspondingly low level of state and local increases during at least the next year.

Table 5.11
Summary of Telephone Revenue Requests Pending
Before State Public Utility Commissions
(Millions of Dollars)

Date	Revenue Requests Pending
September 30, 1983	$6,493.4
December 31, 1983	6,970.0
March 31, 1984	4,851.9
June 30, 1984	1,675.6
September 30, 1984	3,387.5
December 31, 1984	3,672.3
March 31, 1985	3,779.0
June 30, 1985	3,316.3
September 30, 1985	2,664.2
December 31, 1985	1,437.3
March 31, 1986	766.2
June 30, 1986	362.0
September 30, 1986	315.7
December 31, 1986	322.6
March 31, 1987	135.0
June 30, 1987	108.1

We expect future issues of this monitoring report to include revenue data collected by the National Exchange Carrier Association (NECA). Monthly reports from NECA should indicate the total amount of of end user revenues collected. Annual reports should be available providing a breakdown of revenues by state and by type of line (residential, lifeline, etc.). Such reports, however, are not yet available in a format that is suitable for inclusion in this report.

6. Bypass

In its order outlining the proposed monitoring program, the Joint Board "recognized that the incentives for bypass are incontrovertible." The Joint Board recommended that the Commission solicit suggestions and comments regarding the type, format and frequency of bypass reports that telephone companies should be required to submit. In addition, the Joint Board also recommended that the Commission direct LECs that file bypass reports with state Commissions to place copies in the ongoing open docket as well. Subsequently, the Commission adopted both of these Joint Board recommendations.

Periodic reports on bypass from major exchange carriers are necessary to monitor the development of bypass over time. Furthermore, a uniform methodology would be best, so that the bypass results from different carriers can be added to produce a nationwide estimate of bypass. The Third Report on Bypass included over 1300 examples of bypass activities currently taking place.[5] For two reasons, no attempt was made at that time to estimate a nationwide total for the amount of bypass. First, the examples were not intended to represent a comprehensive list of all bypass activity. Second, while the companies were able to present their bypass examples in a uniform format, their bypass tracking systems were not uniform from company to company. The Joint Board staff has discussed how the differing monitoring systems employed by various carriers might be adapted to provide a nationwide estimate of bypass. We expect concrete proposals for a uniform bypass monitoring system to be received during the current comment period.

Pacific Bell has submitted a series of seven semi-annual reports on bypass to the staff of the California Public Utilities Commission. The California reports are of unique interest because, using a consistent methodology agreed to by the state staff, the study is repeated every six months -- thus showing a trend in bypass developments. Most other studies, in contrast, represent a snapshot of bypass on a one-time basis.[6] We seek comments on whether requiring all companies to conduct California type

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5 Third Report on Bypass of the Public Switched Network, Common Carrier Bureau, Federal Communications Commission, May 26, 1987.

6 The California study, as well as other recent bypass studies -- including those by the General Accounting Office and the National Regulatory Research Institute -- are summarized in the Commission's Third Report on Bypass of the Public Switched Network.

studies, or whether some alternate methodology, will best give us an ability to periodically estimate the total amount of bypass activity occurring on a nationwide basis.

The bypass information received as part of this monitoring program must include sufficient data for us to achieve our goal of measuring bypass and its relative impact upon local telephone companies. Thus the periodic reports should include the growth in LEC private line services used for bypass, the growth in bypass using non-LEC facilities, and the growth in interstate usage of the local switched network. To do so, the bypass reports must distinguish between "facility bypass" and "service bypass." [7] To some extent, the growth of bypass must be measured in relative terms, for it is the impact of bypass on the public switched network and the users of that network which has been of most concern to the Joint Board and the Commission. Because growth in bypass facilities does not in itself give a clear forecast of the impact on LECs, we solicit comment on how the assessment of its effects on local telephone companies can best be made.

At the time of preparation of this report, no studies filed with the state commissions have yet been submitted in the docket, nor are we aware of any major studies completed after the the Third Report on Bypass of the Public Switched Network was issued in May 1987 and submitted to the Telecommunications and Finance Subcommittee of the House Committee on Energy and Commerce. Therefore, to provide the Congress and the public with a background summary of bypass developments and a basic discussion of the issues and concepts involved, we attach portions of the Third Report. [8] In

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7 Service bypass refers to the use of private-line facilities supplied by the local telephone company to bypass the public switched network. In doing so, the bypasser need not construct or operate its own transmission facilities.

8 The Third Report on Bypass contained extensive quantitative material of two types. First, an extensive list of actual bypass examples was included. Second, the concentration of business revenues among major customers was shown for each state. Because these materials totaled over two hundred pages, they are not included in the excerpts that follow.

the preparation of this monitoring report, the New Jersey staff has noted that, while the Third Report on Bypass cited the development of new fiber networks in Chicago and Manhattan, the Teleport operation is by no means restricted to Manhattan. Indeed, it has widespread regional scope stretching throughout the New York metropolitan area as far south as Princeton, New Jersey.

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THIRD REPORT ON BYPASS OF THE PUBLIC SWITCHED NETWORK
(excerpts)

Executive Summary

The Commission published earlier reports on bypass in 1983 and 1985. This report focuses on the two years since 1985, when the most comprehensive previous report was issued. The technologies used for bypass activities continue to evolve. The facilities offered by vendors of bypass services continue to spread, and the prices of those facilities continue to fall. Bypass activities continue to grow.

Prices for telephone services that differ widely from the costs of those services provide the incentives for bypass. A high concentration of traffic yields the opportunity for bypass. Telephone traffic remains highly concentrated, with a relatively small number of customers providing a disproportionate amount of telephone company revenues. For most local telephone companies, the top 1% of business customers account for about half of the revenues from all business customers. The combination of prices above costs and high concentrations of traffic -- the combination of the incentive and the opportunity -- inevitably leads to the consideration of bypass alternatives. Large commercial customers, asked to pay prices far above the underlying costs, have strong incentives to seek lower cost alternatives.

With the overall economy growing, and with overall traffic levels continuing to increase, the aggregate effects of bypass are not easy to separate from the many other changes affecting the telephone industry. Nevertheless, as documented by this report, bypass remains a fact of life for the telephone industry and continues to grow. Revenue losses from bypass activities are recovered by charging higher rates to remaining customers -- residential subscribers and small business customers who are unable to bypass the nation's public switched network. Thus, the initial impact of bypass is felt by customers who remain on the public switched system rather than the telephone companies themselves.

The Origin and Incentives for Bypass

The costs of providing long distance telephone service have been declining for many years. The introduction of direct distance dialing largely eliminated the need for operator assistance. The development of ever larger and more efficient computers continues to reduce the costs of metering, switching and billing. The development of new transmission systems, beginning with microwave and progressing to fiber optics, has

resulted in declining costs for transmission as well. As a result of these advances, the costs of producing long distance telephone service have declined -- sharply and continuously -- over a long period of time.

Unfortunately, technological progress and cost savings have not been as great for the provision of local telephone service. Because the technological advances were smaller for local service than for long distance service, the costs of providing local service have failed to plummet in the same manner as long distance costs.

Had the telephone industry been competitive 40 years ago, prices would have changed as the underlying service costs changed: long distance prices would have fallen sharply while local service prices would have risen as the underlying costs of providing local service increased. Had this happened, many of the issues developing in later years -- bypass, the need to "deload" the costs of toll calls, and subscriber line charges -- would never have surfaced. But this did not happen. Instead, beginning in the 1940's, the telephone industry and the regulators overseeing the industry began to assign an ever increasing share of local costs to long distance services for cost recovery. That is, over a lengthy period of time, the prices of long distance calls became more and more detached from the underlying costs, and an ever larger percentage of long distance revenues were used to defray local costs. By the early 1980's, more than half of the revenues from long distance calls were ultimately flowing to local telephone companies. About 25% of certain local telephone costs were allocated to interstate service and recovered from the revenues of interstate long distance calls.1/

AT&T and the local telephone companies acted together in sharing costs and revenues -- often described as the industry "partnership". So long as the telephone industry remained a monopoly and customers had no alternatives, the prices charged did not need to be related to the costs of providing service. The practice of charging prices far above costs was sustainable only so long as the customers were captive and had no alternatives. But the same technologies that dropped the costs of providing toll service also provided the largest customers with opportunities to bypass the high priced services rendered to most customers. As we outline

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1/ For further background and analysis of this issue, see Leland L. Johnson, Competition and Cross-Subsidization in the Telephone Industry, The Rand Corporation, Santa Monica, California, December 1982 and Congressional Budget Office, The Changing Telephone Industry: Access Charges, Universal Service, and Local Rates, A CBO Study, June 1984.

below, despite efforts since 1982 to "deload" the price of toll calls and reduce the incentives for large customers to bypass the nation's public telephone system, many prices remain far above the underlying costs of providing service and provide strong incentives for large customers to seek lower priced alternatives to serve their communications needs.

At present, the average price of an ordinary interstate long distance telephone call is about 20 cents per minute. 2/ The true costs of providing that call are nowhere near as high. On the average, the local telephone company serving the area where the call begins receives about 5 cents per minute from the long distance carrier. The local telephone company where the call terminates receives about 8 cents per minute from the long distance carrier. Thus, about 13 of the 20 cents charged for an average minute of interstate calling (65% of toll revenue) flow to local telephone companies and about 7 cents (35% of the toll revenue) remains to cover the other costs of the long distance carrier.

In the 1950's, large users began to eye construction of their own private microwave systems. Some were constructed by railroads and by other firms with large volumes of communications. The telephone industry responded by offering its largest customers bulk-rate discounts for dedicated circuits or "private lines" which did not bear the high per minute charges assessed to smaller customers. This was, in essence, the beginning of the bypass issue although it did not acquire the name for several years.

Bypass Technologies

During recent years, numerous technologies, either designed for or adapted to bypass, have entered the marketplace. These technologies made it economically and operationally feasible to bypass the local telephone company. Three technologies in particular were used by early bypassers -- microwave, coaxial cable and satellites. These three technologies are now only a part of a growing list of bypass technologies. Since the Commission's comprehensive bypass report in 1985, developments such as micro-earth stations and metropolitan-area fiber networks have become operationally and economically feasible.

2/ The revenues and costs described in this paragraph are based on AT&T's provision of directly-dialed interstate service to residential customers. They are, however, representative of industry averages because all long distance carriers now pay equal charges to local telephone companies in equal access areas, and charge similar rates.

A more complete list of bypass technologies would now include the following:

- o Microwave
- o Coaxial Cable
- o Satellite
- o Fiber Optic Systems
- o Metropolitan-Area Networks
- o Shared Tenant Systems
- o Digital Termination Systems
- o Local Area Networks
- o Teleports
- o Cellular Mobile Telephone
- o Micro-Earth Stations
- o Infra-Red

As bypass technologies developed, numerous suppliers stood ready to cater to the large users by assembling systems to provide specialized services. Several trade publications contain extensive descriptions of suppliers and technologies. 3/

Forms of Bypass

Bypass is commonly characterized as being of two major types -- service and facility -- although there are numerous variations:

- o Service bypass -- the user leases a private line from the local telephone carrier which may be connected either to the facilities of an interexchange carrier or to another location operated by the customer. In this case, switched access service provided by the local telephone company is bypassed. The bypasser thus avoids paying the "contribution" included in the price of other long distance calls.

- o Facility bypass -- the user either installs, or has a facility provided, which makes the services provided by the local telephone

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3/ For a description of bypass suppliers and technologies see the following: Data Communications, Buyer's Guide Issue, 1987, McGraw Hill, Mid-December 1986; Telecom Factbook, 1986, Television Digest, Inc., Washington, D.C.; 1987 Telephone Industry, Directory and Factbook, 1st Annual Edition, Phillips Publishing Inc., Potomac, MD.

company unnecessary. The facilities may either be connected to an interexchange carrier or to other facilities operated by the customer.

A large customer may bypass the local telephone company at either end or both ends of long distance calls. In some instances customers build total or "end-to-end" bypass systems in which the user communicates via facilities that bypass both the local and the long distance carriers. 4/

Thus far, as indicated in the Commission's 1985 report on bypass, service bypass is more evident than facilities bypass. The two forms of bypass have somewhat different characteristics and effects, although both types allow the users to bypass the per minute contributions extracted from customers who use ordinary long distance telephone service. Service bypass does not tend to result in unused telephone company facilities. Indeed, under certain circumstances, service bypass may result in customers ordering more lines from the local telephone company than they would have otherwise -- as they order private lines for long distance traffic in addition to the regular lines connecting their switchboard with the telephone company's offices. If users later build stand-alone private systems, some of the telephone company's facilities previously serving that customer may be idled or stranded.

Despite differences between facilities and services bypass, they have two characteristics in common. First, the costs bypassed by large users are absorbed by other smaller customers rather than the local telephone companies. Thus, the initial impact of bypass is to raise rates for residential and small business customers who cannot themselves bypass the high long distance toll rates. Because local telephone companies are legally entitled to a reasonable rate of return on their invested capital, and because they have a large base of customers from which to earn such a return, revenues lost to bypass are generally recaptured from other users rather than representing losses to the telephone companies themselves. In the longer term, of course, it is conceivable that so much revenue would disappear from the largest customers that the industry could not recover its costs no matter how much it attempted to raise rates to its remaining customers.

The second characteristic shared by both forms of bypass is that they often represent major inefficiencies. Given the spread between the price of long distance service and the underlying costs of actually providing that

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4/ For a more complete discussion of the taxonomy of bypass, see the Commission's 1985 bypass report at pps. 6-13 and Appendix 4.

service, bypass systems need not necessarily be efficient in order to be financially beneficial to the entities undertaking the bypass activities. Thus, separate, duplicative systems constructed only because of prices that deviate from costs -- either of private lines or private facilities -- represent a waste of society's resources that need not be devoted to such purposes. 5/

Commission Bypass Studies

To assess the extent and threat of bypass, the staff of the Common Carrier Bureau conducted a study and issued its "First" bypass report in February 1983.6/ Among the major conclusions the staff reported were:

1. Bypass was taking place.
2. Bypass would grow.
3. A wide range of bypass technologies was available with microwave being the most commonly used.
4. AT&T had the capability to become a significant bypasser.

The first staff bypass report was limited in scope. Early in 1984, the Commission set the groundwork for a more comprehensive study of bypass. A wide range of public comments and data were submitted to the Commission. As part of its review, the Commission's staff completed a mathematical model, that made it possible to analyze the expected effects under a variety of assumptions. 7/ In January 1985, the Commission released its "Second," and much more comprehensive, bypass report. 8/

5/ As the Commission has recognized in its previous bypass reports, corporations may undertake bypass activities for a variety of reasons in addition to price (for example, a desire for network control and security). It is, however, the development of private systems undertaken only because of prices substantially above the underlying service costs that leads to the most obvious waste of society's scarce resources.

6/ Status Report on Near-Term Local Bypass Developments, Common Carrier Bureau Staff, attached as Appendix F to In the Matter of MTS and WATS Market Structure: Third Report and Order, CC Docket No. 78-72, Phase I, FCC 82-579, 32607, released February 28, 1983.

7/ Gerald W. Brock, Bypass of the Local Exchange: A Quantitative Assessment, Office of Plans and Policy, Working Paper No. 12, September 1984.

8/ Federal Communications Commission, Bypass of the Public Switched Network, released, January 18, 1985.

The second report confirmed the conclusions of the Commission's first report and led the Commission to the following four additional conclusions:

1. Bypass is not dependent on the development of new technology.

2. During the next few years, service bypass (i.e., the use of special access lines) will be the most prevalent form of bypass.

3. The establishment of direct links between long distance carriers and points with large concentrations of traffic now appears to be the most likely source of growth in bypass in the near future.

4. The likely amount of future bypass is large enough to cause increased rates for other customers.

More Recent Bypass Reports

The issue of bypass has triggered reports and studies by a wide range of organizations. Those completed prior to 1985 are generally summarized in the Commission's 1985 bypass report. Several major studies, however, have been released since that time and each confirms the Commission's conclusions. Of the more recent bypass studies and surveys of large telecommunications users, we find several to be of particular interest: the General Accounting Office, 9/ the National Regulatory Research Institute, 10/ the Conference Board, 11/ the Wall Street Journal, 12/ and the State

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9/ General Accounting Office, Telephone Communications: Bypass of the Local Telephone Companies, Report to the Congress, August 1986.

10/ The National Regulatory Research Institute, The Bypass Issue: An Emerging Form of Competition in the Telephone Industry, December 1984. This report, released almost simultaneously with the Commission's Second Bypass Report, was not available when that report was being prepared. Because of its importance and the fact that it was not summarized in the Commission's Second Bypass Report, it is treated here as a study appearing after the Commission's report.

11/ The Conference Board, Current Issues in Corporate Telecommunications, Research Bulletin No. 176, 1985.

12/ The Wall Street Journal, Telecommunications: The Future is Now: A Market Study from the Wall Street Journal, 1986.

of Colorado. 13/ These studies represent a wide range of interests, bypass definitions and survey techniques. Despite the different approaches taken in these various studies, they all reach similar conclusions: that bypass exists, that bypass is projected to grow, that a wide range of technologies and suppliers cater to bypassers, and that bypassers are primarily large volume communication users.

Of these various studies and surveys, the one completed by the General Accounting Office is perhaps the most noteworthy. Field work, including interviews with 82 large volume telephone users in Colorado and Massachusetts, began in June 1984. The final report, published in August 1986, is not only one of the most recent bypass reports available, but because of the extensive effort involved, one of the most comprehensive. Furthermore, the report was specifically intended to provide "Congress with data that will be useful in its oversight and regulation of the nation's telecommunications industry." 14/

13/ A Study of Intrastate Telecommunications Including the Means Available to Enhance Intrastate Telecommunications Competition, Submitted to the General Assembly of Colorado by the Colorado Public Utilities Commission, prepared by R. W. Beck and Associates, Denver, Colorado, July 15, 1986.

14/ GAO Bypass Report, Executive Summary, p.2.

GAO's conclusions with respect to bypass are essentially similar to the ones adopted by the Commission in 1985. GAO's summary of the bypass problem describes the effects of bypass simply and eloquently:

> Local telephone customers could face billions in rate increases if the local telephone companies lose their large-volume customers due to bypass. Bypass occurs when customers use available technologies, such as microwave and satellite transmission facilities, to avoid using certain local telephone company facilities. Increased local telephone rates could reduce the affordability of telephone service. 15/

The results of the most recent studies are summarized in Table 1.

15/ Ibid.

TABLE 1

SELECTED ESTIMATES OF
EXISTING AND PROJECTED BYPASS
AMONG LARGE USERS

Study	Existing Bypass - % Users -	Projected Bypass Additional % of Users
R. W. Beck & Associates Study for the State of Colorado (7/86)	6.6 - 18.0%	14% 1/
National Regulatory Research Institute (12/84)	12.5 - 18.9%	16% 2/
Wall Street Journal (1986)	38%	40% 3/
Conference Board (1985)	13 - 39%	increasing 4/
General Accounting Office (8/86)	16 - 29%	19 - 53% 5/

Many of these reports give a range of results or reference results from other studies. We have taken a conservative approach in selecting range numbers.

1/ A Study of Intrastate Telecommunications Including the Means Available to Enhance Intrastate Telecommunications Competition, submitted to the General Assembly of Colorado by the Colorado Public Utilities Commission, prepared by R. W. Beck and Associates, Denver, Colorado, July 15, 1986, pp. 8-18, X-26.

2/ The National Regulatory Research Institute, The Bypass Issue: An Emerging Form of Competition in the Telephone Industry, December 1984, pp. 72-73.

3/ The Wall Street Journal, Telecommunications: The Future is Now: A Special Market Study from the Wall Street Journal, 1986, pp. 13-17.

4/ The Conference Board, Current Issues in Corporate Telecommunications, Research Bulletin No. 176, 1985, pp. 5-8.

5/ General Accounting Office, Telephone Communications, Bypass of the Local Telephone Companies, Report to the Congress, August 1986, pp. 39-123.

Recent Trends and New Forces

A number of communications developments that were in their infancy when the rush of bypass began are now starting to mature, and the prices of the new technologies are falling. Local Area Networks (LANs), teleports, shared tenant systems, optical fiber networks, and small dish satellite systems as well as high speed digital (T1) systems have now become more economical as options to bypassers. In 1983, when the Commission issued its first bypass report, there were only a handful of teleports in operation -- and, indeed, the term "teleport" was not even coined until 1982. 16/ In contrast, by early 1987, there were 28 operational teleports and 24 more are being developed in North America. 17/

Private, non-telephone company fiber optic systems are also on the rise. A survey of 400 communication users reveals that "20.5% are now using fiber optic networks for voice and data communications, and another 30% said they will use it in the near future." 18/ In the Washington, D.C. area, Institutional Communications Company ("Institutional") has installed a fiber optic network to bypass the local telephone companies. Institutional has targeted the large user and claims that it can "underprice the utility by 20 to 40%." 19/ Other fiber networks have been installed in Chicago and Manhattan.

16/ Gerhard J. Hanneman, "The Development of Teleports," Satellite Communications, March 1987, p. 15.

17/ Haber, Lynn, "Not Just an Antenna Farm", Network World, January 19, 1987, pp. 35-37. East Lansing Research Group of San Francisco projects that "...the privatization of national networks and impending deployment of fiber optic networks will more than triple the number of international teleports, from 71 to 250 by 1999." Communications Week, April 20, 1987, pp. 18-20.

18/ Kolodziej, Stan, "New Directions in Bypass", Computerworld Focus, September 17, 1986, vol. 20, No. 37A, p. 55, based on a report prepared by the Market Information Center (Marlboro, Mass.)

19/ Andrews, Edmund, "L. Scott Brodey Offers Cheap Bypassing to Business Users", Venture, March 1987, pp. 82-83.

The report by the consultant retained by the Department of Justice to evaluate the telecommunications industry 20/ ("Huber Report") clearly demonstrates a jump in the development of bypass technologies. Between 1982 and 1986, the Huber Report shows a sharp rise in private microwave, private fiber, metropolitan area networks and satellite earth stations. A breakout of the growth of various bypass technologies and applications is presented in Table 2.

20/ P. Huber, The Geodesic Network, 1987 Report on Competition in the Telephone Industry, January 1987 (Government Printing Office).

TABLE 2

SUMMARY OF SHORT-HAUL
TRANSMISSION ALTERNATIVES
(Millions of Voice Circuits) 1/

Type of Facility	1982	1986	Annual Compound Rate of Growth
Switched access lines 2/	76.1	86.0	3.1%
Unswitched lines provided by local carrier	—	2.9	3/
Cellular mobile	0.4	0.8	18.9
Private microwave	0.3	3.4	83.5
Private fiber	0	250.0	4/
Metropolitan area networks	0	8.0	4/
Satellite earth stations	0.4	0.8	18.9

1/ The Geodesic Network, 1987 Report on Competition in the Telephone Industry, U.S. Department of Justice, Antitrust Division, Washington, D.C. January 1987, Table L.23. Short-Haul Transmission Alternatives. The data presented by Dr. Huber and reflected in this table are for areas served by Bell Operating Companies.

2/ This category summarizes the data presented separately by Dr. Huber for residential switched lines, business switched single lines, business centrex lines, and business PBX trunks.

3/ Because 1982 data is not provided by Dr. Huber, a growth rate cannot be calculated.

4/ Because these technologies are so new, growth rates, if calculated, would appear to be infinite.

The rapid developments in bypass technologies have, in many cases, been accompanied by sharp declines in the prices of those technologies. The Huber Report indicates that prices for "short-haul microwave systems have declined significantly in the past five years." 21/ Fiber optic systems are reported to have dropped in price at a rate of 20% per year, 22/ and advances in "technology and the appearance of low-cost ground stations are bringing satellite communications prices down." 23/

Some sophisticated developments in the supply of services and facilities are so new that they were not addressed in the Commission's earlier bypass reports. The newer bypass tools have been labeled as "Network Intelligence Bypass". The spreading of increasingly intelligent nodes, which allow users increasing flexibility in the structure of their telecommunications, is a major theme of the 1987 Huber Report. Network intelligence can be located in a variety of places -- the networks provided by local telephone companies, the networks provided by long distance carriers, or on customers' premises. As the battle over the location of intelligence intensifies, it is clear that the continued recovery of certain local costs by overpricing some long distance services distorts a user's view of the available alternatives. While the choice should be left to the user, the user should be able to make the choice based on the real costs of the alternatives being considered.

Interexchange Carriers -- Still a Threat

In its first and second bypass reports, the Commission noted that AT&T had great potential to become a leading bypasser. Other observers have also noted the powerful position in which AT&T and other long distance carriers have placed themselves. A 1986 report submitted to the general assembly of Colorado by the Colorado Public Utilities Commission summarized this potential:

21/ Huber Report, p. 2.14.

22/ Fiber Optic Communications: Issues and Trends, DATAPRO, March 1987, p. CA 40-010-101.

23/ Stan Kolodziej, "New Directions in Bypass", Computerworld, September 17, 1986, p. 54.

> Carrier bypass, particularly by AT&T, is likely to increase in the future. The long distance market has become increasingly rivalrous, as both facilities-based and resale carriers competed for price-sensitive traffic....
>
> AT&T is also positioning itself to bypass in order to serve the large private network user. It is currently the major supplier of special large-scale private networks such as Common Control Switching Arrangements (CCSA) and Enhanced Private Switched Communications Service (EPSCS) services, and is developing an all-digital network to serve large users. Technological improvements to AT&T's 4ESS switching equipment will give the switched capability for carrier bypass. 24/

The Commission remains concerned that the concentrations of traffic described in the following sections, combined with the technological expertise of AT&T and other long distance carriers, make interexchange carriers likely candidates to be major bypassers in coming years.

Examples of Current Bypass Activities

Bypass activities are now widespread -- examples are found in nearly every state surveyed. Since the avoidance of high toll charges is entirely legal, bypassers are under no obligation to report their activities. Thus, while many examples can be found, no complete catalog can be produced.

Examples have been derived from a large number of studies using different methodologies. Bell Atlantic, for example, maps and tracks private microwave systems operating in the states it serves. The frequencies assigned are a matter of public record, and the number of circuits handled by the private systems can often be inferred from the number of channels activated and from requests to activate additional channels. Hence, the bypass examples from the states served by Bell Atlantic focus on facility bypass. Southwestern Bell, by contrast, has used an entirely different approach in its studies of bypass. In 1984, Southwestern Bell identified approximately 2100 large customer locations of special importance to its revenue stream. If these customers exhibit significant usage declines, Southwestern Bell seeks to identify and confirm the use of non-switched facilities at the locations exhibiting such declines. Because Southwestern Bell relys principally on tracking measures

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24/ R.W. Beck & Associates, p. X13.

internal to the company, its bypass examples focus largely on service bypass rather than on facility bypass.

The underlying studies are available for public use in the Public Reference Room maintained by the Industry Analysis Division and copies of the studies have also been supplied to the staff of the House Subcommittee on Telecommunications and Finance for inclusion as part of the record of the Subcommittee's investigation of subscriber line charges.

The Concentration of Business Traffic

As indicated at the beginning of this report, two factors combine to lead to bypass. The first is toll charges, priced substantially above costs, that provide the incentives to bypass. The second is a concentration of traffic that makes it feasible and economically desirable to do so. Although bypass activities are now geographically widespread, the overall level of bypass has not yet become sufficient to eliminate growth in the nation's public switched system. During the past few years, a buoyant economy and steep reductions in long distance prices have increased the overall volume of traffic on the nation's public switched network. Nevertheless, traffic remains so concentrated among a few major customers that many of those major customers will have the opportunity to bypass the public system. As a result, the Commission continues to regard bypass as a real and present danger to the long term health of the nation's telephone system.

Billings are highly concentrated -- with the top 1% of business customers usually representing 30% or more of all revenues received from non-carrier business customers. The high concentration of traffic leaves the local telephone company vulnerable to bypass. The fact that local and long distance billings tend to be concentrated together enhances bypass opportunities since the electronic computer at the heart of a new corporate switchboard may allow the company to reduce both local and long distance expenses at the same time.

For most local telephone companies, the bills sent to AT&T and other long distance carriers are the largest bills they send to any customers. If the long distance carriers link directly up with large businesses, a substantial flow of the local carrier's funds will be lost.

When long distance customers are included with other commercial customers, the top 1% of business accounts tend to provide more than half of all business revenues. The revenues from all business customers in turn, account for about 2/3 of the revenue stream for the typical local company. This means that, for a typical local telephone company, more than 30% of its overall revenue is dependent on the top 1% of its commercial customers. In many cases the dependency is even greater. It is this concentration of traffic that provides the vulnerability to bypass.

Long distance carriers cannot, of course, bypass the local company in all cases. Most long distance calls between residential customers must be originated and terminated using the local loops provided by the local telephone company. Long distance carriers can, however, bypass the local telephone company in many cases -- particularly when dealing with the traffic generated by commercial customers or customers in densely concentrated locations (for example, a large apartment complex with a major switchboard of its own). The true concentration of traffic vulnerable to bypass probably lies somewhere between these densities. In either case, however, traffic is so concentrated as to make it likely -- indeed inevitable -- that bypass activities will continue to grow so long as prices are set substantially above the costs of providing service, as they are today.

Summary

Although no longer in its incipiency, bypass has still not yet achieved its full potential. Developments such as the spread of optical fiber networks, and the declining costs of alternative facilities, are bound to increase the spread of bypass. Not only can we expect an increase in the quantity of bypass, but we can also expect to see the various bypass services and networks add new capabilities to existing bypass networks. Thus, many of the fiber networks previously devoted to video or data are likely to add voice capability. Since voice is the major form of telephone communications, the loss of voice traffic presents a threat to the bread and butter revenues of the local telephone companies. New forms of bypass such as intelligent bypass networks are being promoted while the large interexchange carriers maneuver themselves into position to assist large users to become bypassers.

The seeds of bypass have already spread and bypass activities already exist on a wide geographic basis. Because revenue losses from bypass activities are recovered by charging higher rates to remaining customers -- residential subscribers and small business customers who are unable to bypass -- the Commission continues to regard bypass as a serious problem at the current differentials between price and cost. The concentration of traffic is such that bypass can be expected to continue to grow so long as prices remain far above the costs of providing service.

7. Pooling and Rate Deaveraging

Revisions to the pooling of common line costs and revenues, which are scheduled to be effective on April 1, 1989, will necessitate the monitoring of those LECs that withdraw from the NECA pooling and tariff process, the dimensions of the long term support and transitional support payments among the LECs, and the common line revenue requirements for the LECs that remain in the NECA pool. For the effects of the revised pooling mechanism to be properly monitored, detailed information is necessary on the cash flows resulting after implementation of these changes. As part of its administration of the common line and traffic sensitive pools, NECA reports nationwide figures on revenues and expenses for the pool members on a monthly basis. The Joint Board recommended that the Commission request that NECA file figures in the docket by study area on an annual basis as well.

Because the Joint Board was concerned that interstate toll rates remain averaged, it also recommended monitoring of the economic pressures for interexchange carriers to deaverage interstate toll rates. Consequently, the Joint Board recommended that, beginning in 1989, the monitoring plan incorporate information on these issues. Since the pooling modifications will not be in effect until April 1989, the Joint Board believed that the details of the monitoring program related to the eventual depooling of common line charges can be deferred until 1988. We seek comments on what should be included in this section of future reports.

8. Jurisdictional Shifts in Revenue Requirements

In order to address concerns that various recent changes in the separations procedures might dramatically shift costs between jurisdictions and thereby lead to significant rate increases, the monitoring program will examine resulting jurisdictional shifts in revenue requirements. While the magnitude and significance of any such shifts is still unclear, they will not occur until 1988. This section discusses the monitoring efforts in this area that will be undertaken as the information becomes available.

The Commission recently adopted the recommendations of the Joint Board in Docket No. 86-297 which conformed separations procedures to the recently revised Uniform System of Accounts and simplified those procedures. The Commission also adopted the Joint Board's recommendation that review of the jurisdictional revenue requirement shifts resulting from these changes be included in the monitoring plan. Pursuant to the Commission's decision, no formal report on jurisdictional shifts in revenue requirements is due until March 1989. At that time, shifts occurring during calendar year 1988 will be reported by carriers.

Specifically, the Commission has requested information on jurisdictional shifts in total revenue requirements that exceed 5% or more of the company's annual total revenue requirements for the study area. The shifts in revenue requirements to be reported are those resulting from conformance of the separations rules to the new accounting rules and from simplification of the separations rules. Other separations procedures changes (including those relating to central office equipment and other changes recommended by the Joint Board in Docket No. 80-286) will be excluded.

Subsequent to the Commission's adoption of the Joint Board's recommended monitoring plan, further separations issues developed. The Commission reconsidered its decision regarding the separations procedures for marketing expenses, and decided, on an interim basis, that billings for access charges should be included in the allocation factor for these expenses. (Memorandum Opinion and Order released August 18, 1987). The Commission was concerned, as were the state members of the Joint Board, that the revenue requirement impact of the exclusion of access revenues from the allocation factor had not been fully tested in the conformance proceeding. The Commission referred this issue to the Joint Board in CC Docket No. 80-286 and requested that the Joint Board recommend a permanent solution by April 1, 1988. [9]

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9 In addition, petitions for reconsideration regarding other aspects of the revised separations procedures are currently pending before the Commission.