Telephone Areas Serviced by Bell and Independent Companies in the United States

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U.S. DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary
Bernard J. Wunder, Jr., Assistant Secretary for Communications and Information

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<td>41.</td>
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<td>43b.</td>
<td>Texas (Lower Left)</td>
<td>68</td>
</tr>
<tr>
<td>43c.</td>
<td>Texas (Lower Right)</td>
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<td>50.</td>
<td>Wyoming</td>
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</table>

FIGURE B-1  Computer-Labelled Polygon Areas of New York  118
The geographic coverage of all telephone companies in the United States is presented in a series of maps depicting the operating areas served by Bell and each of the various independent telephone companies. Tables are also presented of state-by-state listings of (1) almost 1500 telephone companies and their headquarters, and (2) the land areas of each state's major telephone companies. In the future, this updated version of telephone company areas should be more useful than the original 1973 report, since it was plotted with an interactive computer system, which has the capability of updating boundary changes with minimal effort.

Key words: telephone company areas; independent telephone companies; telephone company maps; interactive computer graphic system

1. INTRODUCTION

The geographic coverage of all telephone companies in the United States was previously presented in a series of state maps (Hart, 1973). An unusually large number of these reports have been and are still being sold by the National Technical Information Service and the Government Printing Office. In the past few years, however, many firms and individuals have indicated that they would be interested in purchasing an update of this publication. In response to these requests, the telephone company area maps have been revised, and a new listing (as of January 1, 1981) of independent telephone companies operating in each of the

* The authors are with the Office of Policy Analysis and Development, National Telecommunications and Information Administration, U.S. Department of Commerce, Boulder, CO 80303.
fifty states has been prepared. In addition, because the telephone company boundaries were digitized with an interactive computer graphic system, area computations of the eight largest companies in each state were made and are listed in this report.

2. DISCUSSION OF DATA

2.1 Statistical

There were 180,424,023 telephones in the United States at the beginning of 1981. The principal subsidiaries of the American Telephone and Telegraph Company* (more commonly called the Bell System) service 81 percent of these phones. (See Table 1.) The remainder is serviced by 1,483 non-Bell companies, which are usually called the "independents." These independent companies service 44 percent of the area of the United States, while Bell services 31 percent. A list of the top fifteen independents (with their number of telephones) is given in Table 2. The large area of the United States that is labeled as "undesignated" in Table 1 represents unfranchised or unassigned territory. It includes natural features such as lakes, deserts, swamps, and mountainous terrain. It may also include special bounded areas, such as military reservations or very sparsely populated areas of national parks and forests.

* The January 8, 1982, settlement of the antitrust suit brought by the United States against the American Telephone and Telegraph Company (AT&T) requires AT&T to divest itself of ownership of 21 operating companies (excluding Cincinnati Bell and Southern New England Telephone) 18 months after the settlement is approved. That approval is pending in the U.S. District Court for the District of Columbia.
## TABLE 1
Summary of U.S. Telephone Coverage

<table>
<thead>
<tr>
<th>TELEPHONE COMPANY</th>
<th>TOTAL SQ. MILES</th>
<th>% OF TOTAL</th>
<th>TOTAL TELEPHONES</th>
<th>% OF TOTAL</th>
<th>DENSITY (PHONES/SQ. MI.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELL</td>
<td>1,134,619</td>
<td>31.36</td>
<td>145,876,350*</td>
<td>80.85</td>
<td>128.57</td>
</tr>
<tr>
<td>GENERAL TEL. &amp; ELECTRONICS</td>
<td>250,774</td>
<td>6.93</td>
<td>15,756,400</td>
<td>8.73</td>
<td>62.83</td>
</tr>
<tr>
<td>UNITED</td>
<td>116,674</td>
<td>3.22</td>
<td>4,697,468</td>
<td>2.60</td>
<td>40.26</td>
</tr>
<tr>
<td>CONTINENTAL</td>
<td>237,681</td>
<td>6.57</td>
<td>3,125,800</td>
<td>1.73</td>
<td>13.15</td>
</tr>
<tr>
<td>CENTRAL</td>
<td>30,549</td>
<td>0.84</td>
<td>1,806,600</td>
<td>1.00</td>
<td>59.14</td>
</tr>
<tr>
<td>MID-CONTINENTAL</td>
<td>25,966</td>
<td>0.72</td>
<td>1,094,850</td>
<td>0.61</td>
<td>42.16</td>
</tr>
<tr>
<td>OTHER INDEPENDENTS</td>
<td>940,383</td>
<td>25.99</td>
<td>8,066,555</td>
<td>4.47</td>
<td>8.58</td>
</tr>
<tr>
<td>UNDESIGNATED AREAS (inc. water)</td>
<td>881,759</td>
<td>24.37</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>3,618,405</td>
<td>100.00</td>
<td>180,424,023</td>
<td>100.00</td>
<td>49.86</td>
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## TABLE 2
Top 15 Independent Telephone Companies or Groups**
December 31, 1980

<table>
<thead>
<tr>
<th>NAME</th>
<th>HEADQUARTERS</th>
<th>TELEPHONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. General Tel. &amp; Elec. Corp.</td>
<td>Stamford, CT</td>
<td>15,756,400</td>
</tr>
<tr>
<td>2. United Telephone System, Inc.</td>
<td>Kansas City, MO</td>
<td>4,697,500</td>
</tr>
<tr>
<td>3. Continental Telephone Corp.</td>
<td>Atlanta, GA</td>
<td>3,125,800</td>
</tr>
<tr>
<td>4. Central Tel. &amp; Utilities Corp.</td>
<td>Chicago, IL</td>
<td>1,806,600</td>
</tr>
<tr>
<td>5. Mid-Continent Tel. Corp.</td>
<td>Hudson, OH</td>
<td>1,094,900</td>
</tr>
<tr>
<td>6. Puerto Rico Tel. Co.</td>
<td>San Juan, PR</td>
<td>631,500</td>
</tr>
<tr>
<td>7. Rochester Tel. Corp.</td>
<td>Rochester, NY</td>
<td>621,900</td>
</tr>
<tr>
<td>8. Lincoln Tel. &amp; Tel. Co.</td>
<td>Lincoln, NE</td>
<td>330,600</td>
</tr>
<tr>
<td>9. Century Tel. Enterprises, Inc.</td>
<td>Monroe, LA</td>
<td>265,600</td>
</tr>
<tr>
<td>10. Tel. &amp; Data Systems, Inc.</td>
<td>Chicago, IL</td>
<td>236,500</td>
</tr>
<tr>
<td>11. Commonwealth Tel. Co.</td>
<td>Dallas, PA</td>
<td>235,800</td>
</tr>
<tr>
<td>12. Telephone Utilities, Inc.</td>
<td>Portland, OR</td>
<td>205,000</td>
</tr>
<tr>
<td>13. Allied Telephone Co.</td>
<td>Little Rock, AR</td>
<td>201,600</td>
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<tr>
<td>14. Anchorage Telephone Utilities</td>
<td>Anchorage, AK</td>
<td>142,200</td>
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<tr>
<td>15. Illinois Consolidated Tel. Co.</td>
<td>Mattoon, IL</td>
<td>126,400</td>
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</table>


Among the independents, General Telephone and Electronics serves the largest area (6.9 percent of the United States) followed closely by Continental (6.6 percent). Other independents (than the top five) service 26 percent of the United States area, but only 4.5 percent of the telephones. These area data from Table 1 are a summary of the detailed data given in Table 3. This latter table gives the state areas served by Bell, any of the top five independent holding companies (shown in Table 1) that serve the state, and the two "additional" independents (designated as #1 and #2) that have the larger number of telephones within that particular state. The percentages do not always equal 100 percent because of rounding errors. Rounding errors also explain why the total square miles in each state do not always agree with totals given in the Statistical Abstract (1980).

Appendix A lists all the telephone companies in each state that are not a part of Bell or the top five independent holding companies. Those companies that are affiliates or associates of a larger independent are (indented and) listed under the "parent" company. Each company has at least one telephone service area in the state under which it is listed. Two states, Iowa and Wisconsin, contain more than 100 independent telephone companies. This Appendix also gives the number of telephones (as of the beginning of 1981) for the additional (#1 and #2) top independents within each state. These two companies are marked with asterisks. We used information from four sources: Telephony's Directory (1981), Telephone Engineer and Management Directory (1981), Rural Electrification Administration (1981), and USITA (1981a), for these data. If small discrepancies appeared, the latter reference was used, but, in the case of large discrepancies, individual telephone companies were contacted for their number of telephones. It can be noted that companies 7-9 and 11-15 in Table 2 are also the #1 companies in those states where each is headquartered.
<table>
<thead>
<tr>
<th>STATE</th>
<th>COMPANY</th>
<th>LAND AREA (SQ. MI)</th>
<th>% OF STATE AREA</th>
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<tr>
<td>ALABAMA</td>
<td>BELL</td>
<td>27,067</td>
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<td>GTE</td>
<td>5,775</td>
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<td></td>
<td>CONTINENTAL</td>
<td>7,193</td>
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<td>MID-CONTINENT</td>
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<td></td>
<td>#1 GULF TEL. CO.</td>
<td>643</td>
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<tr>
<td></td>
<td>#2 FARMERS TEL. COOP., INC.</td>
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<td></td>
<td>OTHER</td>
<td>9,555</td>
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<td>TOTAL</td>
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<td>GTE</td>
<td>15,547</td>
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<tr>
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<td>#1 ANCHORAGE TEL. UTIL.</td>
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<td>#2 FAIRBANKS MUNICIPAL</td>
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<td>UTIL. SYSTEMS</td>
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<td>97,088</td>
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<td>UNDESIGNATED</td>
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<td>CONTINENTAL</td>
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<td>#1 CITIZEN'S UTIL. CO.</td>
<td>8,313</td>
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<td>#2 GREAT SOUTHWEST TEL. CORP.</td>
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<td>ARKANSAS</td>
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<td></td>
<td>UNITED</td>
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<td>#1 ALLIED TEL. CO., INC.</td>
<td>7,846</td>
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<td>#2 CENTURY TEL. ENTERPRISES</td>
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<td>TOTAL</td>
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<td>STATE</td>
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<td>% OF STATE AREA</td>
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<td>----------------------------------</td>
<td>--------------------</td>
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<td><strong>BELL</strong></td>
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<td><strong>GTE</strong></td>
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</tr>
<tr>
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<td><strong>UNITED</strong></td>
<td>237</td>
<td>0.1</td>
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<td><strong>CITIZENS UTIL. CO.</strong></td>
<td>3,780</td>
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<td><strong>OTHER</strong></td>
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<td><strong>LARGE WATER AREAS</strong></td>
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<td><strong>TOTAL</strong></td>
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<td><strong>BELL</strong></td>
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Telephone Company Land Areas by State (Continued)

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</tr>
<tr>
<td></td>
<td>BELL</td>
<td>32,464</td>
<td>38.2</td>
</tr>
<tr>
<td></td>
<td>CONTINENTAL</td>
<td>11,977</td>
<td>14.1</td>
</tr>
<tr>
<td></td>
<td>#1 EMERY CO. FARMERS UNION TEL.</td>
<td>2,700</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>#2 UNITAH BASIN TEL. ASSN., INC.</td>
<td>4,905</td>
<td>5.8</td>
</tr>
<tr>
<td></td>
<td>OTHER</td>
<td>16,140</td>
<td>19.0</td>
</tr>
<tr>
<td></td>
<td>UNDESIGNATED</td>
<td>14,598</td>
<td>17.2</td>
</tr>
<tr>
<td></td>
<td>LARGE WATER AREAS</td>
<td>2,132</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>84,916</td>
<td></td>
</tr>
<tr>
<td><strong>VERMONT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BELL</td>
<td>7,232</td>
<td>75.3</td>
</tr>
<tr>
<td></td>
<td>CONTINENTAL</td>
<td>1,653</td>
<td>17.2</td>
</tr>
<tr>
<td></td>
<td>#1 TEL. &amp; DATA SYSTEMS, INC.</td>
<td>204</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>#2 WAITSFIELD-FAYSTON TEL. CO.</td>
<td>115</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>OTHER</td>
<td>405</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>9,609</td>
<td></td>
</tr>
<tr>
<td>STATE</td>
<td>COMPANY</td>
<td>LAND AREA (SQ. MI)</td>
<td>% OF STATE AREA</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------</td>
<td>-------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>VIRGINIA</td>
<td>BELL</td>
<td>15,348</td>
<td>37.6</td>
</tr>
<tr>
<td></td>
<td>GTE</td>
<td>979</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>UNITED</td>
<td>3,197</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td>CONTINENTAL</td>
<td>9,712</td>
<td>23.8</td>
</tr>
<tr>
<td></td>
<td>CENTRAL</td>
<td>6,698</td>
<td>16.4</td>
</tr>
<tr>
<td>#1</td>
<td>CLIFTON FORGE-WAYNESBORO TEL.</td>
<td>661</td>
<td>1.6</td>
</tr>
<tr>
<td>#2</td>
<td>SHENANDOAH TEL. CO.</td>
<td>592</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>OTHER</td>
<td>3,401</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>UNDESKNATED</td>
<td>230</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>40,818</td>
<td></td>
</tr>
</tbody>
</table>

| WASHINGTON    | BELL                           | 20,444            | 30.0            |
|               | GTE                            | 7,788             | 11.4            |
|               | UNITED                         | 6,279             | 9.2             |
|               | CONTINENTAL                    | 3,631             | 5.3             |
| #1            | TEL. UTIL., INC.               | 5,693             | 8.3             |
| #2            | ELLENSBURG TEL. CO.            | 1,382             | 2.0             |
|               | OTHER                          | 3,501             | 5.1             |
|               | UNDESKNATED                    | 19,473            | 28.6            |
|               | TOTAL                          | 68,191            |                 |

| WEST VIRGINIA | BELL                           | 15,143            | 62.6            |
|               | GTE                            | 2,247             | 9.3             |
|               | CONTINENTAL                    | 2,476             | 10.2            |
|               | MID-CONTINENT                  | 2,637             | 11.0            |
| #1            | ARMSTRONG UTIL., INC.          | 543               | 2.2             |
| #2            | CENTURY TEL. ENTERPRISES, INC. | 54                | 0.2             |
|               | OTHER                          | 670               | 2.8             |
|               | UNDESKNATED                    | 390               | 1.6             |
|               | TOTAL                          | 24,180            |                 |
### TABLE 3
Telephone Company Land Areas by State (Continued)

<table>
<thead>
<tr>
<th>STATE</th>
<th>COMPANY</th>
<th>LAND AREA (SQ. MI)</th>
<th>% OF STATE AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>WISCONSIN</td>
<td>BELL</td>
<td>8,449</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>GTE</td>
<td>19,100</td>
<td>34.0</td>
</tr>
<tr>
<td></td>
<td>#1 NORTH-WEST TEL. CO.</td>
<td>2,060</td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td>#2 TEL. &amp; DATA SYSTEMS, INC.</td>
<td>3,388</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>OTHER</td>
<td>21,683</td>
<td>38.6</td>
</tr>
<tr>
<td></td>
<td>UNDESIGNATED</td>
<td>1,284</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>LARGE WATER AREAS</td>
<td>191</td>
<td>0.3</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>56,155</td>
<td></td>
</tr>
</tbody>
</table>

| WYOMING                | BELL                                 | 58,013            | 59.2            |
|                        | UNITED                               | 1,868             | 1.9             |
|                        | #1 WYOMING TEL. CO., INC.            | 3,820             | 3.9             |
|                        | #2 UNION TEL. CO.                    | 1,874             | 1.9             |
|                        | OTHER                                | 12,754            | 13.0            |
|                        | UNDESIGNATED                         | 19,586            | 20.0            |
|                        | TOTAL                                | 97,915            |                 |

**NOTE:** Washington, D.C. is not included in either Maryland or Virginia. This district covers 67 sq. mi. and is serviced by a private telephone company, Potomac Telecommunications, Ltd.
2.2 Maps

The maps in the first telephone map report (Hart, 1973) were hand-drafted figures. However, telephone area boundaries change from year to year due to company mergers, purchases, and new exchange acquisitions or trades; therefore, it seemed desirable to seek some method that would permit easy alteration of telephone map boundaries. If this method also included a way to calculate telephone company areas, that would be a bonus. Computer graphics met both of these needs; therefore, it was used. (See Appendix B for a discussion of how a computer graphic system was used to create the telephone area maps.)

Maps were prepared of the telephone company operating areas for each of the 50 states (Figures 1-50). Two states with a very large number of area polygons were placed on more than one page in order to retain detail. Texas, with 511 polygons, is shown as Figures 43a, 43b, and 43c, while California, with 196 polygons, became Figures 5a and 5b. The shaded inset on each of these figures shows which state portion is depicted.

The key to the shading found on the maps is given on the code sheet preceding the state maps. Each of the state maps was divided into eleven arbitrary telephone areas: (l) Bell System companies, (2-6) the five independent companies with the largest number of telephones in the United States, (7-8) the two independent companies (exclusive of the five listed in 2-6) with the largest number of telephones within that state, (9) all other independent telephone companies in that state, (10) undesignated, and (11) large water areas. The last category is somewhat misleading, because it only includes those large water areas that were indicated on the telephone maps sent to us by the state commissions. Other water areas are either disguised as undesignated or included within the boundaries of a telephone company.
Almost half of the source maps of telephone service areas were based on updated versions of telephone boundary areas obtained from the state public service and utility commissions, the state independent telephone associations, or various Bell headquarters. Fifteen states were updated from telephone maps that were four to eight years old. Fourteen states were "hand-drawn," using the latest information obtained from the larger telephone holding companies and data contained in USITA (1981b), Telephone Engineer and Management Directory (1981), and Telephony's Directory (1981). Every attempt was made to insure that the company operating areas within each state were updated accurately through the early months of 1981. Some errors are inevitable because boundaries can fluctuate from month to month; however, this revised report contains a great many corrections updating the original 1973 report. It should be very useful to any group or individual who has a need for telephone company area data.

3. ACKNOWLEDGMENTS

The authors wish to express appreciation to Dale Hatfield who, first of all, suggested that this update should be written, and, second, gave encouragement whenever needed. They also wish to credit Roger Salaman and Jeffrey Close with assisting with the solving of computer hardware and software problems.
4. REFERENCES


MARYLAND

FIGURE 20
MISSISSIPPI

FIGURE 24
FIGURE 28
TEXAS (LOWER LEFT)

FIGURE 43b
APPENDIX A:
LISTING OF INDEPENDENT TELEPHONE COMPANIES IN EACH STATE THAT ARE NOT A PART OF THE TOP FIVE HOLDING COMPANIES

ALABAMA

Ardmore Tel. Co., Inc., Ardmore
Blountsville Tel. Co., Blountsville
Brindlee Mountain Tel. Co., Arab
Castleberry Tel. Co., Castleberry
Century Tel. Enterprises, Inc., Monroe, LA
Butler Tel. Co., Inc., Butler
*Farmers Tel. Co-op., Inc., Rainsville (17,537)
Florala Tel. Co., Inc., Florala
Goshen Tel. Co., Goshen
Gra-Ceba Tel. Total Communications, Ashford
*Gulf Tel. Co., Foley (19,091)
Hayneville Tel. Co., Hayneville
Hopper Tel. Co., Altoona
Interstate Tel. Co., Westpoint, GA
Mid-South Tel. Co., Inc., Baton Rouge, LA
Lamar County Tel. Co., Millport
Millry Tel. Co., Millry
Mississippi Tel. Corp., Leakesville, MS
Fruitdale Tel. Co., Inc., Fruitdale
Mon-Cre Tel. Co-op. Inc., Ramer
Monroeville Tel. Co., Monroeville
Moundville Tel. Co., Inc., Moundville
New Hope Tel. Co-op., New Hope
Oakman Tel. Co., Inc., Oakman
Oneonta Tel. Co., Inc., Oneonta
Pine Belt Tel. Co., Inc., Arlington
Ragland Tel. Co., Ragland
Roanoke Tel. Co., Roanoke
Southland Tel. Co., Atmore
Telephone and Data Systems, Inc., Chicago, IL
Peoples Tel. Co., Inc., Leesburg
Telephone Electronics Corporation, Bay Springs, MS
Grove Hill Tel. Corp., Grove Hill
National Telephone Co. of Alabama, Inc., Cherokee
Tri-County Tel. Co., Everton
Union Springs, Tel. Co., Inc., Union Springs

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
ALASKA

Alaska Power & Telephone Co.
National Utilities Inc., Skagway
*Anchorage Telephone Utility, Anchorage (144,563)
Bettles Tel. Co., Inc., Bettles
Bristol Bay Tel. Communications Co-op., Inc., Naknek
Bush Tel. Inc., Aniak
Circle Tel., Circle
Copper Valley Tel. Co-op., Valdez
Cordova Public Utilities, Cordova
*Fairbanks Municipal Utilities Systems, Fairbanks (35,128)
GAB Telecommunications Co., Inc., Girdwood
Great Land Tel. Anchorage
Interior Tel. Co., Anchorage
Ketchikan Public Utilities Co., Ketchikan
Manley Utility Co., Manley Hot Springs
Matanuska Tel. Assn., Inc., Palmer
Mukduk Tel. Co., Teller
Nushagak Tel. Co-op., Inc., Dillingham
OTZ Tel. Co-op., Inc., Kotzebue
Summit Tel., Summit
Telephone Utilities, Inc., Portland, OR
Sitka Tel. Co., Sitka
*Telephone Utilities of Alaska, Inc., Ft. Wainwright
United Utilities, Inc., Anchorage
Whittier Tel. Co., Anchorage
Yukon Tel. Co., Tanana

ARIZONA

Arizona Tel. Co., Phoenix
*Citizens Utilities Co., Stamford, CT (37,828)
   Citizens Utilities Co. & Citizens Utilities Rural Co., Kingman
*Great Southwest Tel. Corp., Grandview, TX (13,376)
   Navajo Communications Co., Inc., Window Rock
Rio Virgin Tel. Co., Mesquite, NV
South Central Utah Tel. Assn., Inc., Escalante, UT
Southwestern Tel. Co., Salome
Universal Tel., Inc., Milwaukee, WI
   Universal Tel. Co., of Arizona, Keams Canyon
Valley Tel. Co-op., Inc., Willcox

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
ARKANSAS

*Allied Tel. Co., Inc., Little Rock (91,225)
  Allied Tel. Co., of Arkansas, Inc., Little Rock
  Allied Utilities Corp., Crossett
  Boone County Tel. Co., Harrison
  Doniphan Tel. Co., Doniphan, MO
  White River Tel. Co., Elkins
  Wickes Tel. Co., Inc., Wickes
Arkansas Tel. Co., Inc., Clinton
Central Arkansas Tel. Co-op. Inc., Donaldson
*Century Tel. Enterprises, Monroe, LA (34,148)
  Liberty Tel. & Comm., Inc., Hardy
  Liberty Tel. Co., Calico Rock
  Mountain Home Tel. Co., Inc., Mountain Home
  Union Tel. Co., Plain Dealing, LA
Cleveland County Tel. Co., Inc., Rison
Decatur Tel. Co., Inc., Decatur
Lavaca Tel. Exch., Lavaca
Madison County Tel. Co., Inc., Huntsville
Magazine Tel. Co., Magazine
Mountain View Tel. Co., Mountain View
Northern Arkansas Tel. Co., Flippin
Perco Tel. Co., Perryville
Prairie Grove Tel. Co., Prairie Grove
Redfield Tel. Co., Inc., Redfield
Rice Belt Tel. Co., Inc., Weiner
E. Ritter Tel. Co., Marked Tree
South Arkansas Tel. Co., Hampton
Southwest Arkansas Tel. Co-op., Inc., Texarkana
Walnut Hill Tel. Co., Lewisville
Yelcot Tel. Co., Mountain Home
Yell County Tel. Co., Inc., Danville

CALIFORNIA

Calaveras Tel. Co., Copperopolis
Calif-Pacific National Corp., Concord
Capay Valley Tel. Co., Guinda
*Citizens Utilities Co., Stamford, Conn. (63,275)
  Citizens Utilities Co. of California, Redding
Dorris Tel. Co., Dorris
Ducor Tel. Co., Ducor
Evans Tel. Co., Patterson
  Livingston Tel. Co., Livingston

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
CALIFORNIA (cont.)

Foresthill Tel. Co., Inc., Foresthill
Happy Valley Tel. Co., Anderson
Hornitos Tel. Co., Hornitos
Kerman Tel. Co., Kerman
Pinnacles Tel. Co, Paicines
Ponderosa Tel. Co., O'Neals
*Roseville Tel. Co., Roseville (72,473)
Sierra Tel. Co., Inc., Oakhurst
    Mariposa County Tel. Co., Inc., Oakhurst
Siskiyou Tel. Co., The, Fort Jones
Volcano Tel. Co., The, Pine Grove

COLORADO

Agate Mutual Tel. Co., Agate
Big Sandy Tel. Co., Simla
Bijou Tel. Co-op., Byers
Blanca Tel. System, Blanca
Columbine Tel. Co., Billings, MT
*Delta County Tel. Co, Paonia (8,017)
Eagle Valley Tel. Co., The, Eagle
*Eastern Slope Rural Tel. Assn. Inc., Hugo (5,345)
El Paso County Tel. Co., El Paso
Farmers Mutual Tel. Co., Pleasant View
Nucla-Naturita Tel. Co., Nucla
Nunn Tel. Co., Nunn
Peetz Co-op. Tel., Peetz
Phillips County Tel. Co., Holyoke
Pine Drive Tel. Co., Beulah
Pioneer Tel. Assn., Inc., Ulysses, KS
Plains Cooperative Tel. Assn., Inc., Joes
Rico Tel. Co., Rico
Roggen Tel. Co-op. Co., Roggen
Rye Tel. Co., Inc., Colorado City
S&T Tel. Co-op. Assn., Brewster, KS
Stoneham Co-op. Tel. Co., Stoneham
Strasburg Tel. Co., Strasburg
Sunflower Tel. Co., Inc., Dodge City, KS
Union Tel. Co., Mountainview, WY
Universal Tel. Inc., Milwaukee, WI
    Universal Tel. Co. of Colorado, Pagosa Springs
Valley Tel. Co., Baggs, WY
Wiggins Tel. Assn., Wiggins
Willard Tel. Co., Willard

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
CONNECTICUT

*The Woodbury Tel. Co., Woodbury (20,684)

DELAWARE

No "other" independents

FLORIDA

*Gulf Tel. Co., Perry (8,602)
Floral Alta Tel. Co., Floral, Al.
Indiantown Tel. Co., Indiantown
Northeast Florida Tel. Co., Inc., MacClenny
*St. Joseph Tel. & Telegraph Co., Port St. Joe (26,101)
Southland Tel. Co., Atmore, AL

GEORGIA

Alma Tel. Co., Inc., Alma
Blue Ridge Tel. Co., Blue Ridge
Brantley Tel. Co., Nahunta
Bulloch Tel. Co-op. Inc., Statesboro
Camden Tel. & Telegraph Co., Inc., St. Mary's
Chickamauga Tel. Corp., Chickamauga
Citizens Tel. Co., Inc., Leslie
*Coastal Utilities, Inc., Hinesville (17,782)
Darien Tel. Co., Darien
Ellijay Tel. Co., Ellijay
Fairmount Tel. Co., Inc., Fairmount
Georgia Tel. Corp., Blakely
Glenwood Tel. Co., Glenwood
Hart County Tel. Co., Hartwell
Hawkinsville Tel. Co., Hawkinsville
Interstate Tel. Co., West Point
Valley Tel. Co., Inc., West Point
Nelson-Ball Ground Tel. Co, Nelson
Pembroke Tel. Co., Inc., Pembroke
Pineland Tel. Co-op. Inc., Metter
Planters Rural Tel. Co-op. Inc, Newington
Plant Tel. & Power Co., Inc., Tifton
Progressive Rural Tel. Co-op., Rentz
Public Service Tel. Co., Reynolds

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
GEORGIA (cont.)

Ringgold Tel. Co., Ringgold
St. Joseph Tel. And Telegraph Co., Port St. Joe, FL
*Standard Tel. Co., Cornelia (37,956)
Statesboro Tel. Co., Statesboro
Trenton Tel. Co., Trenton
Utelwico Inc., The, Tallbottton
Walker County Tel. Co., LaFayette
Waverly Hall Tel. Co., Waverly Hall
Wilkes Tel. & Electric Co., Washington
Wilkinson County Tel. Co., Irwinton

HAWAII

No "other" independents

IDAHO

Albion Tel. Co., Inc., Albion
Cambridge Tel. Co., Inc., Cambridge
Custer Tel. Co-op., Challis
Farmers Mutual Tel. Co., Fruitland
Filer Mutual Tel. Co., Filer
Inland Tel. Co., Uniontown, WA
*Century Tel. Enterprises, Inc., Monroe, LA (5,525)
  Lemhi Tel. Co., Salmon
Midvale Tel. Exch., Midvale
Mud Lake Tel. Co-op. Assn., Dubois
Potlatch Tel. Co., Kendrick
*Project Mutual Tel. Co-op. Assn., Inc., Rupert (11,556)
Rockland Tel. Co., Rockland
Rural Tel. Co., Three Creek
Silver Star Tel. Co., Inc., Freedom, WY
Telephone and Data Systems, Inc., Chicago, IL
  Troy Tel. Co., Inc., Troy
Telephone Utilities, Ilwaco, WA
  Gem State Utilities Corp., Grandview

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
Adams Tel. Co-op., Golden
Alhambra-Grantfork Tel. Co., Alhambra
Bergen Tel. Co., Sharon, WI
Cambridge Tel. Co., Geneseo
Cass Tel. Co., Virginia
Chandlerville Tel. Co., Chandlerville
C-R Tel. Co., Ransom
Clarksville Mutual Tel. Co., Clarksville
Crossville Tel. Co., Crossville
Depue Tel. Co., Depue
Egyptian Tel. Co-op. Assn., Steeleville
El Paso Tel. Co., El Paso
Equality Tel. Co., Inc., Equality
Flat Rock Mutual Tel. Co., Flat Rock
Geneseo Tel. Co., Geneseo
Glasford Tel. Co., Glasford
Grafton Tel. Co., Grafton
Grandview Mutual Tel., Grandview
Gridley Tel. Co., Gridley
Hamilton County Tel. Co-op., Dahlgren
Hardin County Tel. Co., Rosiclare
*Harrisonville Tel. Co., Waterloo (17,990)
Henry County Tel. Co., Geneseo
Home Tel. Co., St. Jacob
*Illinois Consolidated Tel. Co., Mattoon (126,468)
Inland Tel. Co., Champaign
Kinsman Mutual Tel. Co., Kinsman
LaHarpe Tel. Co., Inc., LaHarpe
Lakeside Tel. Co., Champaign
Leaf River Valley Tel. Co., Leaf River
Leonore Mutual Tel. Co., Leonore
McDonough Tel. Co-op., Colchester
McNabb Tel. Co., McNabb
Madison Tel. Co., Hamel
Marseilles Tel. Co., Marseilles
Metamora Tel. Co., Metamora
Mid Century Tel. Co-op., Inc., Canton
Midland Tel. Co., Champaign
Montrose Mutual Tel. Co. Inc., Dietrich
Moultrie Independent Tel. Co., Lovington
Mt. Pulaski Tel. & Electric Co., Lincoln
New Windsor Tel. Co., New Windsor
Odin Tel. Exch., Odin

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
ILLINOIS (cont.)

Oneida Tel. Exch., Oneida
Orion Tel. Exch., Orion
Prairie Tel. Co., Champaign
Reynolds Tel. Co., Inc., Reynolds
Schuyler Tel. Co., Rushville
Sharon Tel. Co., Sharon, WI
Timewell Tel. Exch., Timewell
Tonica Tel. Co., Tonica
Viola Home Tel. Co., Viola
Wabash Tel. Co-op., Inc., Louisville
Woodhull Community Tel. Co., Woodhull
Yates City Tel. Co., Yates City

INDIANA

Bloomingdale Home Tel. Co., Inc., Bloomingdale
Camden Tel. Co., Inc., Camden
Century Tel. Enterprises, Inc., Monroe, LA
Central Indiana Tel. Co., Inc., Battle Ground
Elberfeld Tel. Co., Inc., Elberfeld
Citizens Tel. Co., Inc., Fairmount
Citizens Tel. Corp., Warren
Clay City Rural Tel. Co-op. Inc., Cloverdale
Craigville Tel. Corp., Craigville
Daviess-Martin City Rural Tel. Corp., Montgomery
Greetingsville Tel. Co., Inc., Frankfort
Hancock Rural Tel. Corp., Maxwell
Ligonier Tel. Co., Inc., Ligonier
Merchants & Farmers Tel. Co., Hillsboro
Monon Tel. Co., Inc., Monon
Mulberry Co-op. Tel. Co., Inc., Mulberry
New Lisbon Tel. Co., Inc., New Lisbon
New Paris Tel. Inc., New Paris
Northwestern Indiana Tel. Co., Inc., Hebron
Odin & Madison Township Tel. Co., Odin
Perry Spencer Rural Tel. Co-op. Inc., Tell City
Poseyville Tel. Co., Inc., Poseyville
*Princeton Tel. Co., Princeton (21,821)
Pulaski-White Rural Tel. Co-op. Inc., Star City
Rochester Tel. Co., Inc., Rochester
S & W Tel. Co., Inc., Sanborn
*Smithville Tel. Co., Inc., Ellettsville (27,598)
Southeast Indiana Rural Tel. Co-op., Inc., Dillsboro
Sulphur Springs Tel. Co., Sulphur Springs
Sunman Tel. Co., Inc., Sunman

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
INDIANA (cont.)

Swayzee Tel. Co., Swayzee
Sweetser Tel. Co., Inc., Sweetser
Telephone & Data Systems, Chicago, IL
Communication Corp. of Indiana, Roachdale
Elnora Tel. Co., Inc., Elnora
Home Tel. Co. of Pittsboro, Inc., The, Pittsboro
Home Tel. Co., Inc., Waldron
Thorntown Tel. Co., Inc., Thorntown
Tipton Tel. Co., Inc., Tipton
Tri-City Tel. Co., Inc., Wadesville
Wabash Mutual Tel. Co., Celina, OH
Wadesville Tel. Co., Inc., Wadesville
Washington City Rural Tel. Co-op., Inc., Pekin
West Point Tel. Co., Inc., West Point
Yeoman Tel. Co., Yeoman

IOWA

Ace Tel. Assn., Houston, MN
Amana Society Service Co., Amana
Andrew Tel. Co., Andrew
Arcadia Tel. Co-op., Arcadia
Atkins Co-op. Tel. Co., Atkins
Ayrshire Tel. Co., Ayrshire
Baldwin-Nashville Tel. Co., Baldwin
Barnes City Co-op. Tel. Co., Barnes City
Bernard Tel. Co., Inc., Bernard
Breda Tel. Corp., Breda
Prairie Tel. Co., Inc., Breda
Brooklyn Mutual Tel. Co., Brooklyn
Burt Tel. Co., Burt
Butler-Bremer Tel. Co., Plainfield
Cascade Tel. Co., Cascade
Casey Mutual Tel. Co., Casey
Center Junction Independent Tel. Co., Center Junction
Central Scott Tel. Co., Eldridge
Chester Tel. Co., Chester
Citizens Mutual Tel. Co., The, Bloomfield
Clarence Tel. Co., Inc., Clarence
*Clear Lake Independent Tel. Co., Clear Lake (10,362)
Ventura Tel. Co., Inc., Ventura
C-M-L Co-op. Tel. Assn., Meriden
Colo Tel. Co., Colo
Coon Creek Tel. Co., Blairstown

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
Coon Valley Co-op. Tel. Assn., Inc., Menlo
Coop. Tel. Co., Victor
Coop. Tel. Exchange of Stanhope and Kamrar, Inc., Stanhope
Corn Belt Tel. Co., Wall Lake
Cumberland Tel. Co., Cumberland
Danville Mutual Tel. Co., Danville
Deep River Mutual Tel. Co., Deep River
Defiance Tel. Co., Defiance
Dixon Tel. Co., Dixon
Dumont Tel. Co., Dumont
Dunkerton Mutual Tel. Co., Dunkerton
Earling Mutual Tel. Co., Earling
East Buchanan Tel. Co-op., Winthrop
Ellsworth Co-op. Tel. Assn., Ellsworth
Farmers' & Business Men's Tel. Co., Wheatland
Farmers Co-op. Tel. Co., Dysart
Farmers and Merchants Mutual Tel. Co., Wayland
Farmers Mutual Co-op. Tel. Co., Harlan
Farmers Mutual Co-op. Tel. Co., Inc., Moulton
Farmers Mutual Tel. Co., Jesup
Farmers Mutual Tel. Co., Nora Springs
Farmers Tel. Co., Riceville
Farmers Mutual Tel. Co., Shellsburg
Farmers Mutual Tel. Co., Stanton
Farmers Tel. Co., Batavia
Farmers Tel. Co., Essex
Fenton Co-op. Tel. Co., Fenton
Ft. Atkinson Tel. Co., Ft. Atkinson
Gilman Tel. Co., Gilman
Goldfield Tel. Co., Goldfield
Graettinger Co-op. Tel. Assn., Graettinger
Grand Mound Co-op. Tel. Assn., Grand Mound
Grand River Mutual Tel. Co., Grand River
*Grand River Mutual Tel. Corp., Princeton, MO (8,424)
Griswold Co-op. Tel. Co., Griswold
Hawkeye Tel. Co., Hawkeye
Heart of Iowa Tel. Co-op., Union
Hills Tel. Co., Inc., Hills, MN
Hospers Tel. Exch. Inc., Hospers
Hubbard Co-op. Tel. Assn., Hubbard
Huxley Co-op. Tel. Co., Huxley
Iamo Tel. Co., Coin
Interstate "35" Tel. Co., Truro
Southwest Tel. Exchange, Inc., Emerson

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
IOWA (cont.)

Jefferson Tel. Co., Jefferson
Jordan Soldier Valley Tel. Co-op., Soldier
Kalona Co-op. Tel. Co., Inc., Kalona
Kellogg Co-op. Tel. Assn., Kellogg
Keystone Farmers Co-op. Tel. Co., Keystone
Lake Mills Tel. Co., Lake Mills
La Porte City Farmers Mutual Tel. Co., La Porte City
Laurel Tel. Co., Laurel
Lehigh Valley Co-op. Tel. Assn., Lehigh
Lone Rock Co-op. Tel. Co., Lone Rock
Lost Nation-Elwood Tel. Co., Lost Nation
Lynnville Community Tel. Co., Inc., Lynnville
McCausland Co-op. Tel. Assn., McCausland
Mabel Co-op. Tel. Co., Mabel, MN
Manilla Tel. Co., Manilla
Marne & Elk Horn Tel. Co., Elk Horn
Martelle Co-op. Tel. Assn., Martelle
Massena Tel. Co., Massena
Mechanicsville Tel. Co., Mechanicsville
Miles Co-op. Tel. Assn., Miles
Miller Tel. Co., Miller
Minburn Tel. Co., Minburn
Minerva Valley Tel. Co., Inc., Zearing
Modern Co-op. Tel. Co., South English-Webster
Montezuma Mutual Tel. Co., Montezuma
Morley Tel. Co., Inc., Morley
Mutual Tel. Co. of Mediapolis, Mediapolis
Mutual Tel. Co. of Morning Sun, Morning Sun
Northeast Iowa Tel. Co., Monona
North English Co-op. Tel. Co., North English
Northern Iowa Tel. Co., Sioux Center
    Mutual Tel. Co., Sioux Center
Northwest Iowa Tel. Co., Sergeant Bluff
Northwest Tel. Co-op. Assn., Havelock
Norway Rural Tel. Co., Kanawha
Ogden Tel. Co., Ogden
Olin Tel. Co., Inc., Olin
Onslow Co-op. Tel. Assn., Onslow
Oran Mutual Tel. Co., Oran
Palmer Mutual Tel. Co., Palmer
Palo Co-op. Tel. Assn., Palo
Panora Co-op. Tel. Assn., Inc., Panora
Peoples Tel. Co., Aurelia
Postville Tel. Co., Postville
Prairieburg Tel. Co., Inc., Prairieburg
Preston Tel. Co., Preston
Radcliffe Tel. Co., Inc., Radcliffe
Readlyn Tel. Co., Readlyn
Reasnor Mutual Tel. Assn., Reasnor
Ringsted Tel. Co., Ringsted
Rockwell Co-op. Tel. Assn., Rockwell
Royal Tel. Co., Royal
Ruthven Tel. Co., Ruthven
Sac Co. Mutual Tel. Co., Odebolt
Schaller Tel. Co., Schaller
Scranton Tel. Co., Scranton
Searsboro Tel. Co., Searsboro
Sharon Tel. Co., Hills
Shell Rock Tel. Co., Shell Rock
South Slope Co-op. Tel. Co., Inc., Norway
Springville Co-op. Tel. Assn., Inc., Springville
Stratford Mutual Tel. Co., Stratford
Sully Tel. Assn., Sully
Superior Tel. Co-op., Superior
Swisher Tel. Co., Swisher
Templeton Tel. Co., Templeton
Terril Tel. Co., Terril
Titonka Tel. Co., Titonka
United Farmers Tel. Co., Everly
Van Buren Tel. Co., Keosauqua
Van Horne Co-op. Tel. Co., Van Horne
Villisaca Farmers Tel. Co., Villisca
Wallingford Tel. Co-op., Wallingford
Walnut Tel. Co., Walnut
Webb-Dickens Tel. Corp., Webb
Webster-Calhoun Co-op. Tel. Assn., Gowrie
North Central Tel. Co., Badger
Wellman Co-op. Tel. Assn., Wellman
West Branch Tel. Co., West Branch
West Iowa Tel. Co., Remsen
West Liberty Tel. Co., West Liberty
Western Iowa Tel. Assn., Lawton
Westside Independent Tel. Co., Westside
Wilton Tel. Co., Wilton
Winnebago Co-op. Tel. Assn., Lake Mills
Woodward Mutual Tel. Co., Woodward
Woolstock Mutual Tel. Assn., Woolstock
Wyoming Mutual Tel. Co., Wyoming
KANSAS

Assaria Tel. Exch. Inc., Assaria
Benkelman Tel. Co., Inc., Benkelman, NE
Bison Tel. Co., Inc., Bison
Blue Valley Tel. Co., Inc., Home
Columbus Tel. Co., Columbus
Council Grove Tel. Co., Council Grove
Cunningham Tel. Co., Inc., Glen Elder
Diller Tel. Co., Diller, NE
Elkhart Tel. Co., Inc., Elkhart
Golden Belt Tel. Assn., Inc., Rush Center
Burdett Tel. Co., Inc., Rush Center
Gorham Tel. Co., Inc., Gorham
H & B Communications Inc., Holyrood
Hartman Tel. Exchange, Inc., Danbury, NE
Haviland Tel. Co., Inc., Haviland
Home Tel. Co., Inc., Galva
J.B.N. Tel. Co., Inc., Wetmore
Jetmore Tel. Co., Inc., Dodge City
KanOkla Tel. Assn., Inc., Anthony
Kansas State Tel. Co., Baxter Springs
LaHarpe Tel. Co., LaHarpe
Lincoln Tel. Co., Lincoln, NE
Linn Rural Tel. Co., Linn
Madison Tel. Co., Inc., Madison
Mo.-Kan. Dial Co. Inc., Louisburg
Moundridge Tel. Co., Moundridge
Mutual Tel. Co., Little River
Peoples Mutual Tel. Co., LaCygne
*Pioneer Tel. Assn., Inc., Ulysses (20,279)
Pleasanton Tel. Co., Pleasanton
Rainbow Tel. Co-op. Assn., Inc., Everest
Rural Tel. Service Co., Inc., Lenora
S & A Tel. Co., Inc., Allen-Admire
S & T Tel. Co-op. Assn., Brewster
Salem'sboro Farmers Tel. Co., Smolan
South Central Tel. Assn., Inc., Medicine Lodge
Southern Kansas Tel. Co., Inc., Clearwater
Sunflower Tel. Co., Inc., Dodge City
Totah Tel. Co. Inc., Ochelata, OK
Tri-County Tel. Assn. Inc., Council Grove
Twin Valley Tel. Inc., Miltonvale
United Tel. Assn. Inc., Dodge City
Wamego Tel. Co., Inc., Wamego
Wheat State Tel. Co., Inc., Udall
Wilson Tel. Co., Inc., Wilson
Zenda Tel. Co., Inc., Zenda

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KENTUCKY

Allied Tel. Co., Little Rock, AR
Echo Tel. Co., Inc., Shepherdsville
Ballard Rural Tel. Co-op., Corp., Inc., La Center
*Brandenburg Tel. Co., Inc., Brandenburg (21,819)
Century Tel. Enterprises, Inc., Monroe, LA
Uniontown Tel. Co., Inc., Uniontown
Duo County Tel. Co-op. Inc., Jamestown
Foothills Rural Tel. Co-op., Corp., Inc., Staffordsville
Harold Tel. Co., Inc., Harold
Highland Tel. Co-op. Inc., Sunbright, TN
Leslie County Tel. Co., Inc., Hyden
Lewisport Tel. Co., Inc., Lewisport
Logan Tel. Co-op. Inc., Auburn
Mountain Rural Tel. Co-op., Corp., Inc., West Liberty
North Central Tel. Co-op. Inc., Lafayette, TN
Peoples Rural Tel. Co-op., Corp., Inc., McKee
Salem Tel. Co., Salem
*So. Cent. Rural Tel. Co-op., Inc., Glasgow (25,211)
Thacker-Grigsby Tel. Co., Inc., Hindman
West Kentucky Rural Tel. Co-op., Corp., Inc., Mayfield

LOUISIANA

C.A.I.L. Enterprises, Baton Rouge
Star Tel. Co., Inc., Maringouin
Cameron Tel. Co., Sulphur
Campti-Pleasant Hill Tel. Co., Pleasant Hill
*Century Tel. Enterprises Inc., Monroe (100,465)
Athens Tel. Co., Inc., Athens
Caddoan Tel. Co., Plain Dealing
Central Louisiana Tel. Co., Inc., Jena
Century Tel. Co., Inc., Greensburg
Coastal Tel. & Electronics Corp., Breaux Bridge
Evangeline Tel. Co., Welsh
Louisiana Western Tel. Co., Welsh
Northwest Louisiana Tel. Co., Inc., Cotton Valley
Plain Dealing Tel. Co., Inc., Plain Dealing
Union Tel. Co., Plain Dealing
United Tel. Co. of Louisiana, Inc., Marion
Chatham Tel. Co., Chatham
Elizabeth Tel. Co., Inc., Elizabeth
Data Comm., Inc.
Offshore Tel. Co., New Orleans
Delcambre Tel. Co., Inc., Delcambre

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
LOUISIANA (cont.)

Delcambre Tel. Co., Inc., Delcambre
*East Ascension Tel. Co., Inc., Gonzales (22,891)
Kaplan Tel. Co., Kaplan
Lafourche Tel. Co., Inc., Larose
Northeast Louisiana, Tel. Co., Inc., Collinston
Reserve Tel. Co., Reserve
Ringgold Tel. Co., Inc., Ringgold

MAINE

Bryant Pond Tel. Co., Bryant Pond
China Tel. Co., South China
Cobosseecontee Tel. Co., West Gardiner
*Community Service Tel. Co., Winthrop (9,268)
Hampden Tel. Co., Hampden
Island Tel. Co., The, Frenchboro
Lincolnville Tel. Co., Lincolnville
Oxford Co. Tel. & Telegraph Co., Buckfield
Pine Tree Tel. & Telegraph Co., The, Gray
Saco River Tel. & Telegraph Co., Bar Mills
Standish Tel. Co., Standish
*Telephone and Data Systems, Inc., Chicago, Ill. (15,141)
   Hartland & St. Albans Tel. Co., Hartland
   Somerset Tel. Co., North Anson
   Warren Tel. Co., Warren
   West Penobscot Tel. & Telegraph Co., Corinna
Union River Tel. Co., Aurora
Unity Tel. Co., Unity

MARYLAND**

*Armstrong Utilities, Inc., Butler, PA (4,811)
   Armstrong Tel. Co., Rising Sun

MASSACHUSETTS

Elizabeth Islands Tel. Co., Naushon Islands
*Granby Tel. & Telegraph Co., Granby (2,796)
*Richmond Tel. Co., Richmond (1,028)
Taconic Tel. Corp., Chatham, NY

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** Does not include Washington, D.C. (see end of list).
MICHIGAN

Alba Tel. Co., Pigeon
Allendale Tel. Co., Allendale
Banfield Tel. Co., Banfield
Baraga Tel. Co., Baraga
Barry County Tel. Co., Delton
Blanchard Tel. Assn., Blanchard
Bloomingdale Tel. Co., Bloomingdale
Carr Tel. Co., Branch
*CC&S Systems Inc., Brooklyn (20,770)
   Camden Tel. Co., Camden
   Southern Tel. Co., Brooklyn
*Century Tel. Enterprises, Inc., Chesaning (26,487)
   Au Gres Tel. Co., Chesaning
   Central Tel. Co., Chesaning
   Hadley Tel. Co., Hadley
Chatham Tel. Co., Chatham
Chippewa County Tel. Co., Inc., Brimley
Climax Tel. Co., Climax
Concord Tel. Co., Inc., Concord
Deerfield Farmers Tel. Co., Deerfield
Drenthe Tel. Co., Zeeland
Drummond Island Tel. Co., Carney
Farmers Mutual Tel. Co. of Chapin, Elsie
Island Tel. Co., Beaver Island
Kaleva Tel. Co., Kaleva
Kingsley Tel. Co., Kingsley
Lennon Tel. Co., Lennon
Midway Tel. Co., Watton
Munising Tel. Co., Munising
National Communications Systems, Inc., Chesaning
   Mesick Tel. Co., Mesick
   Northern Tel. Co., Mesick
Ogden Mutual Tel. Co., Blissfield
Ontonagon County Tel. Co., Ontonagon
Peninsula Tel. Co., Old Mission
Pigeon Tel. Co., Pigeon
Sand Creek Tel. Co., Sand Creek
Shiawassee Tel. Co., Perry
Springport Tel. Co., Springport
Telephone & Data Systems, Inc., Chicago, IL
   Augusta Tel. Co., Augusta
   Clayton Tel. Co., Clayton
   Hickory Tel. Co., Augusta
Twining Tel. Co., Twining

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MICHIGAN (cont.)

Upper Peninsula Tel. Co., Carney
Waldron Tel. Co., Waldron
Westphalia Tel. Co., Westphalia
Winn Tel. Co., Winn
Wolverine Tel. Co., Millington

MINNESOTA

Ace Tel. Assn., Houston
Albany Mutual Tel. Co., Albany
Arvig Tel. Co., Pequot Lakes
Barnesville Municipal Tel. Co., Barnesville
Benton Cooperative Tel. Co., Rice
Blackduck Tel. Co., Blackduck
Blue Earth Valley Tel. Co., Blue Earth
Bricelyn Mut. Tel. Co., Bricelyn
Bridgewater Tel. Co., Monticello
Callaway Tel. Co., Callaway
Cannon Valley Tel. Co., Morrisstown
Chester Tel. Co., Chester, IA
Clara City Tel. Co., Clara City
Clements Tel. Co., Clements
Communications Systems, Inc., Hector
    Arrowhead Communications Corp., Hector
    Eagle Valley Tel. Co., Clarissa
    Pine Island Tel. Co., Pine Island
Consolidated Tel. Co., Brainerd
Crosslake Tel. Co., Crosslake
Danube Tel. Co., Danube
Deer River Tel. Co., Deer River
Delavan Tel. Co., Delavan
Deuel Tel. Co-op. Assn., Clear Lake, SD
Dunnell Tel. Co., Inc., Dunnell
Easton Tel. Co., Easton
East Otter Tail Tel. Co., Perham
Eckles Tel. Co., New Prague
Emily Tel. System, Emily
Farmers Mutual Tel. Co., Bellingham
Federated Tel. Co-op., Chokio
Felton Tel. Exch. Inc., Felton
*Garden Valley Tel. Co., Erskine (18,178)
Gardonville Co-op. Tel. Assn., Brandon
Granada Tel. Co., Granada
Halstad Tel. Co., Halstad

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
Minnesota (cont.)

Hancock Tel. Co., Hancock
Harmony Tel. Co., Harmony
Hohman Tel. Co., Pelican Rapids
   Lake Region Tel. Co., Pelican Rapids
   Pelican Tel. Co., Pelican Rapids
Home Tel. Co., Grand Meadow
Hutchinson Tel. Co., Hutchinson
Johnson Tel. Co., Remer
Kasson & Mantorville Tel. Co., Kasson
K M P Tel. Co., Kerkhoven
Lakedale Tel. Co., Annandale
Larson Utilities, Inc., Franklin
   Minnesota Valley Tel. Co., Franklin
Lismore Co-op. Tel. Co., Lismore
Lonsdale Tel. Co., Lonsdale
Lowry Tel. Co. Inc., Lowry
Mabel Co-op. Tel. Co., Mabel
Madelia Tel. Co., Madelia
Manchester-Hartland Tel. Co., Manchester
*Mankato Citizens Tel. Co., Mankato (46,255)
   Mid-Commun. Inc., Mankato
Mazeppa Tel. Co., Mazeppa
Melrose Tel. Co., Melrose
Midwest Tel. Co., Parkers Prairie
Minnesota Lake Tel. Co., Minnesota Lake
New Ulm Rural Tel. Co., New Ulm
Northern Tel. Co., Wawina
Northland Tel. Co. Inc., Hill City
Ollig Utilities Co., Ltd., Ada
   Hills Tel. Co., Inc., Hills
   Norman County Tel. Co., Ada
   Sioux Valley Tel. Co., Dell Rapids, SD
   Sleepy Eye Tel. Co., Sleepy Eye
Osakis Tel. Co., Osakis
Park Region Mutual Tel. Co., Underwood
Paul Bunyan Rural Tel. Co-op., Bemidji
Peoples Tel. Co., Big Fork
Polar Rural Tel. Corp., Park River, ND
Red River Rural Tel. Assn., Abercrombie, ND
Redwood County Tel. Co., Redwood Falls
Rock Dell Tel. Co., Kasson
Rothsay Tel. Co., Inc., Rothsay
Runestone Tel. Assn., Hoffman
Sacred Heart Tel. Co., Clara City
   Starbuck Tel. Co., Clara City
Scott-Rice Tel. Co., Prior Lake

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
MINNESOTA (cont.)

Sherburne County Rural Tel. Co., Big Lake
Splitrock Tel. Co-op, Inc., Garretson, SD
Spring Grove Co-op. Tel. Co., Spring Grove
Telephone and Data Systems, Inc., Madison, WI
    Mid-State Tel. Co., Spicer
Twin Valley Ulen Tel. Co., Twin Valley
Universal Tel. Inc., Milwaukee, WI
    Solon Springs Tel. Co. Inc., Minong, WI
Upsala Co-op. Tel. Co., Upsala
Valley Tel. Co., Browns Valley
West Central Tel. Assn., Sebeka
Western Tel. Co., Springfield
Wikstrom Tel. Co. Inc., Karlstad
Winnebago Co-op. Tel. Assn., Lake Mills, IA
Winsted Tel. Co., Winsted
Winthrop Tel. Co., Winthrop
Wolverton Tel. Co., Wolverton
Woodstock Tel. Co., Ruthton
Wykoff Tel. Co., Grand Meadow
Zumbrota Tel. Co., Zumbrota

MISSISSIPPI

Ackerman Tel. Co., Inc., Ackerman
Bruce Tel. Co., Bruce
*Century Tel. Enterprises, Inc., Marion, LA (10,822)
    Home Tel. Co., Olive Branch
    Mississippi Tel. & Communications, Inc., Mound Bayou
    Myrtle Tel. Co., Inc., Myrtle
Decatur Tel. Co., Decatur
Delta Tel. Co., Inc., Louise
Franklin Tel. Co., Inc., Meadville
Fulton Tel. Co., Inc., Fulton
Georgetown Tel. Co., Georgetown
Glen Allan Tel. Co., Glen Allan
Hughes Tel. Co., Inc., Bailey
Mid-South Tel. Co., Inc., Guntown
Mississippi Tel. Corp., Leakesville
Sherwood Tel. Co., Merigold
Sledge Tel. Co., Sunflower
Smithville Tel. Co., Inc., Smithville
Telephone and Data Systems, Inc., Chicago, IL
    Calhoun City Tel. Co., Inc., Calhoun City
*Telephone Electronics Corp., Bay Springs (11,902)
    Bay Springs Tel. Co., Inc., Bay Springs
    Noxapater Tel. Co., Inc., Noxapater

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MISSOURI

*Allied Tel. Co., Little Rock, Ark. (34,249)
  Allied Tel. Co. of Mo., Inc., Dixon
  Doniphan Tel. Co., Doniphan
Alma Tel. Co., Alma
Century Tel. Enterprises, Inc., Hardy, AR
  Carter County Tel. Co., Van Buren
  Holway Tel. Co., Maitland
Webster County Tel. Co., Marshfield
Chariton Valley Tel. Corp., Bucklin
Choctaw Tel. Co., Halltown
Citizens Tel. Co., Higginsville
Craw-Kan Tel. Co-op. Assn., Inc., Girard, KS
Eastern Missouri Tel. Co., Bowling Green
Ellington Tel. Co., Ellington
F & M Tel. Co., Farber
Fidelity Tel. Co., Sullivan
  Bourbeuse Tel. Co., Sullivan
Goodman Tel. Co., Goodman
Granby Tel. Co., Granby
Grand River Mutual Tel. Corp., Princeton
Green Hills Tel. Corp., Breckenridge
Iamo Tel. Co., Coin, IA
K L M Tel. Co., Rich Hill
Kingdom Tel. Co., Auxvasse
Lathrop Tel. Co., Lathrop
Le-Ru Tel. Co., Stella
Mark Twain Rural Tel. Co., Hurdland
McDonald County Tel. Co., Pineville
Mid-Missouri Tel. Co., Pilot Grove
Miller Tel. Co., Inc., Miller
*Missouri Tel. Co., Columbia (21,380)
  Mo-Kan Dial Co., Inc., Louisburg, KS
New Florence Tel. Co., Inc., New Florence
Northeast Missouri Rural Tel. Co., Green City
Orchard Farm Tel. Co., Orchard Farm
Oregon Farmers Mutual Tel. Co., Oregon
Peace Valley Tel. Co., Peace Valley
Rock Port Tel. Co., Rock Port
Seneca Tel. Co., Seneca
Steelville Tel., Exch. Inc., Steelville
Stoutland Tel. Co., Stoutland
Wheeling Tel. Co., Wheeling

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telephones) within that state listing.
MONTANA

Big Pine Rural Tel. Co., Great Falls
Blackfoot Tel. Co-op. Inc., Missoula
Century Tel. Enterprises, Inc., Monroe, LA
    Lemhi Tel. Co., Salmon
Hot Springs Tel. Co., Hot Springs
InterBel Tel. Co-op. Inc., Eureka
Intermountain Tel. & Power Co., Billings
Lincoln Tel. Co., Lincoln
Mid-Rivers Tel. Co-op. Inc., Circle
Nemont Tel. Co-op., Inc., Scobey
Northern Tel. Co-op., Inc., Sunburst
Project Tel. Co., Inc., Worden
Range Tel. Co-op. Inc., Forsyth
Ronan Tel. System, Ronan
Southern Montana Tel. Co., Wisdom
*Telephone Utilities, Inc., Portland, OR (43,149)
    Northwestern Tel. Systems, Inc., Kalispell
Three Rivers Tel. Co-op. Inc., Fairfield
*Triangle Tel. Co-op. Assn., Inc., Havre (12,449)
    Valley Rural Tel. Co-op. Assn., Inc., Glasgow

NEBRASKA

Arapahoe Tel. Co., Arapahoe
Arthur Non-Stock Cooperative Tel. Assn., Arthur
Benkelman Tel. Co., Inc., Benkelman
    Wauneta Tel. Co., Wauneta
Bingham Tel. Co., Bingham
Cambridge Tel. Co., Cambridge
Central Tel. and Utility Corp., Lincoln
Chrisp's Tel. Co., Paxton
Clarks Tel. Co., Clarks
Consolidated Tel. Co., Lincoln
Cozad Tel. Co., Cozad
Craig Tel. Co., Craig
Curtis Tel. Co., Curtis
Dalton Tel. Co., Dalton
Diller Tel. Co., Diller
Elsie Mutual Tel. Co., Elsie
Eustis Tel. Exch., Inc., Eustis
Extension Tel. Co., White Clay
Funk Tel. Co., Inc., Funk
Glenwood Tel. Membership Corp., Blue Hill
Hamilton Tel. Co., Aurora

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NEBRASKA (cont.)

Hartington Tel. Co., Hartington
Hartman Tel. Exch., Inc., Danbury
Hemingford Co-op. Tel. Co., Hemingford
Henderson Tel. Co., Henderson
Hershey Co-op. Tel. Co., Hershey
Home Tel. Co., of Nebraska, Brady
Hooper Tel. Co., Hooper
HunTel Systems, Inc., Blair
    Arlington Tel. Co., Blair
    Blair Tel. Co., Blair
    Eastern Nebraska Tel. Co., Blair
    Rock County Tel. Co., Blair
K & M Tel. Co., Inc., Chambers
Keystone-Arthur Tel. Co., Keystone
*Lincoln Tel. & Telegraph Co., The, Lincoln (330,568)
Nebraska Central Tel. Co., Gibbon
Northeast Nebraska Tel. Co., Jackson
Panhandle Tel. Co., Dix
Petersburg Tel. Co., Petersburg
Pierce Tel. Co., Inc., Pierce
Plainview Tel. Co., Inc., Plainview
Rodeo Tel., Inc., Burwell
Sodtown Tel. Co., Ravenna
Southeast Nebraska Tel. Co., Falls City
Stanton Independent Tel. Co., Stanton
*UniTel of Nebraska, Blair (21,296)
    Central Nebraska Tel. Co., Blair
    Nebraska Tel. Co., Blair
    Northeastern Tel. Co., Blair
    Northern Tel. Co., Blair
    Union Tel. Co., Blair

NEVADA

*Calif-Pacific National Corp., Concord, CA (12,924)
*County of Churchill, State of Nevada (9,862)
    Churchill Co. Tel. & Telegraph System, Fallon
Filer Mutual Tel. Co., Filer, ID
Lincoln County Tel. Sys., Inc., Pioche
Moapa Valley Tel. Co., Overton
Nevada Tel. & Telegraph Co., Tonapah
Rio Virgin Tel. Co., Mesquite
Telephone Utilities, Ilwaco, WA
    Gem State Utilities Corp., Grand View, ID

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NEW HAMPSHIRE

Chichester Tel. Co., Chichester
Dixville Tel. Co., Dixville Notch
Dunbarton Tel. Co., Dunbarton
Granite State Tel. Co., South Weare
*Merrimack County Tel. Co., Contoocook (6,612)
   Mountain Management Development Co., Bretton Woods
   Bretton Woods Tel. Co., Bretton Woods
*Telephone & Data Systems, Inc., Chicago, IL (6,678)
   Kearsarge Tel. Co., New London
   Meriden Tel. Co., Meriden
Union Tel. Co., Farmington
Wilton Tel. Co., Wilton

NEW JERSEY

*Warwick Valley Tel. Co., Warwick, NY (6,856)

NEW MEXICO

Baca Valley Tel. Co., Inc., Des Moines
Corona Tel. Co., Corona
Dell Tel. Co-op., Inc., Dell City, TX
*E.N.M.R. Tel. Co-op., Clovis (4,849)
*Great Southwest Tel. Corp., Grandview, TX (5,345)
   Navajo Communications Co., Inc., Window Rock, AZ
La Jicarita Rural Tel. Co-op. Assn., Mora
Leaco Rural Co-op., Inc., Lovington
Maxwell Tel. Exch., Maxwell
Panhandle Tel. Co-op., Inc., Guymon, OK
Penasco Valley Tel. Co-op., Inc., Artesia
Roosevelt County Rural Tel. Co-op., Inc., Portales
Universal Tel. Inc., Milwaukee, WI
   Universal Tel. Co. of Southwest -- Pecos Dist.
   Universal Tel. Co. of Southwest -- Zuni Dist.
Valley Tel. Corp. Inc., Willcox, AZ
Western New Mexico Tel. Co., Cliff
West Texas Rural Tel. Co-op., Hereford, TX

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NEW YORK

*Armstrong Utilities, Inc., Butler, PA
  Addison Home Tel. Co., Addison
AuSable Valley Tel. Co., Inc., Keeseville
Berkshire Tel. Corp., Kinderhook-Valatie
Cassadaga Tel. Corp., Fredonia
Champlain Tel. Co., Champlain
Chautauqua & Erie Tel. Corp., Westfield
Chazy & Westport Tel. Corp., Westport
Citizens Tel. Co., Hammond
Crown Point Tel. Corp., Crown Point
Delhi Tel. Co., Delhi
Deposit Tel. Co., Inc., Deposit
Dunkirk & Fredonia Tel. Co., Fredonia
Empire Tel. Corp., Prattsburg
Fishers Island Tel. Corp., Fishers Island
Germantown Tel. Co., Inc., Germantown
Hancock Tel. Co., Hancock
Macomb Tel. Co., Macomb
Margaretville Tel. Co., Inc., Margaretville
Middleburgh Tel. Co., Middleburgh
Newport Tel. Co., Inc., Newport
Nicholville Tel. Co., Inc., Nicholville
Ogden Tel. Co., Spencerport
Oneida County Rural Tel. Co., Holland Patent
Oriskany Falls Tel. Corp., Oriskany Falls
Pattersonville Tel. Co., Rotterdam Junction
Port Byron Tel. Co., Port Byron
*Rochester Tel. Corp., Rochester (621,939)
  Highland Tel. Co., Monroe
  Sylvan Lake Tel. Co., Inc., Hopewell Junction
Seneca-Gorham Tel. Co-op., Holcomb
State Tel. Co., Coxsackie
Telephone and Data Systems, Inc., Chicago, IL
  Edwards Tel. Co., Inc., Edwards
*Taconic Tel. Corp., Chatham (24,464)
  Township Tel. Co., Chaumont
Trumansburg-Home Tel. Co., Trumansburg
  Ontario Tel. Co., Inc., Phelps
Vernon Tel. Co., Inc., Vernon
Warwick Valley Tel. Co., Warwick

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
NORTH CAROLINA

Atlantic Tel. Membership Corp., Shallotte
Citizens Tel. Co., Brevard
*Concord Tel. Co., Concord (93,122)
Ellerbe Tel. Co., Inc., Ellerbe
Heins Tel. Co., Inc., Sanford
Lexington Tel. Co., Lexington
Mebane Home Tel. Co., Inc., Mebane
*North State Tel. Co., High Point (110,940)
Piedmont Tel. Membership Corp., Lexington
Pineville Tel. Co., Pineville
Randolph Tel. Co., Inc., Liberty
Randolph Tel. Membership Corp., Asheboro
Saluda Mountain Tel. Co., Saluda
Skyline Tel. Membership Corp., West Jefferson
Star Tel. Membership Corp., Clinton
Surry Tel. Membership Corp., Dobson
Telephone and Data Systems, Inc., Chicago, IL
Barnardsville Tel. Co., Barnardsville
Service Tel. Co., Fair Bluff
Tri-County Tel. Membership Corp., Belhaven
Wilkes Tel. Membership Corp., Wilkesboro
Yadkin Valley Tel. Membership Corp., Yadkinville

NORTH DAKOTA

Absaraka Co-op. Tel. Co., Absaraka
BEK Tel. Mutual Aid Corp., Steele
Consolidated Tel. Co-op., Dickinson
Curlew Tel. Co., Glen Ullin
Dakota Central Rural Tel. Co-op. Assn., Carrington
Dickey Rural Tel. Mutual Aid Corp., Ellendale
Gilby Tel. Co., Gilby
Griggs County Tel. Co., Cooperstown
Inter-Community Tel. Co., Nome
Midstate Tel. Co., Stanley
York Tel. Exchange, York
Moore & Liberty Tel. Co., Enderlin
Nemont Tel. Co-op. Inc., Scobey, MT
Noonan Farmers Tel. Co., Noonan
*Northern States Power Co., Tel. Dept., Minot (35,610)
Northwest Mutual Aid Tel. Corp., Ray
Polar Commun. Mut. Aid Corp., Park River
Red River Rural Tel. Assn., Abercrombie
Reservation Tel. Co-op., Parshall
*Souris River Tel. Mutual Aid Corp., Minot (22,236)
United Tel. Mutual Aid Corp., Langdon
West River Tel. Corp., Hazen
Wolverton Tel. Co., Wolverton, MN

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
Arthur Mutual Tel. Co., Defiance
Ayersville Tel. Co., Defiance
Bascom Mutual Tel. Co., Bascom
Benton Ridge Tel. Co., Benton Ridge
Buckland Mutual Tel. Co., Buckland
Camden Tel. Co., Camden, MI
Champaign Tel. Co., Urbana (12,732)
Chillicothe Tel. Co., Chillicothe (35,533)
Columbus Grove Tel. Co., Columbus Grove
Community Tel. Co., Leipsic
Conneaut Tel. Co., Conneaut
Doylestown Tel. Co., Doylestown
Farmers Mutual Tel. Co., Okolona
Ft. Jennings Tel. Co., Ft. Jennings
Germantown Independent Tel. Co., Germantown
Glandorf Tel. Co., Inc., Glandorf
Harlan Tel. Co., Pleasant Plain
Kalida Tel. Co., Kalida
McClure Tel. Co., McClure
Middle Point Home Tel. Co., Middle Point
Minford Tel. Co., Minford-Stockdale
New Bavaria Tel. Co., New Bavaria
New Knoxville Tel. Co., New Knoxville
North Creek Mutual Tel. Co., North Creek
Nova Tel. Co., Nova
Oakwood Mutual Tel. Co., Oakwood
Orwell Tel. Co., Orwell
Ottoville Mutual Tel. Co., Ottoville
Pattersonville Tel. Co., Pattersonville
Ridgeville Tel. Co., Ridgeville Corners
Sherwood Mutual Tel. Assn., Inc., Sherwood
Sycamore Tel. Co., Sycamore
Telephone and Data Systems, Inc., Chicago, IL
   Arcadia Tel. Co., Arcadia
   Continental Tel. Co., Continental
   Fayetteville Tel. Co., Fayetteville
Tel. Service Co., Wapakoneta
Vanlue Tel. Co., Vanlue
Vaughnsville Tel. Co., Inc., Vaughnsville
Wabash Mutual Tel. Co., Wabash

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
*Allied Tel. Co., Little Rock, AR (34,795)
   Allied Tel. Co. of Oklahoma, Inc., Roosevelt
   Oklahoma Allied Tel. Co., Poteau
   Wickes Tel. Co., Wickes, AR
Atlas Tel. Co., Big Cabin
Beggs Tel. Co., Inc., Beggs
Bixby Tel. Co., Bixby
Bromide Tel. Co., Fittstown
Canadian Valley Tel. Co., Crowder
Carnegie Tel. Co., Inc., Carnegie
Century Tel. Enterprises, Inc., Hardy, AR
   Wyandotte Tel. Co., Wyandotte
Central Oklahoma Tel. Co., Davenport
Cherokee Tel. Co., Calera
Chickasaw Tel. Co., Sulfur
Chouteau Tel. Co., Chouteau
Cimarron Tel. Co., Mannford
Craw-Kan Tel. Co-op. Assn., Inc., Girard, KS
Cross Tel. Co., Warner
Dobson Tel. Co., Inc., Cheyenne
Grand Tel. Co., Jay
Hinton Tel. Co., Hinton
Hydro Tel. Co., Moore
KanOkla Tel. Assn., Inc., Anthony, KS
Lavaca Tel. Co., Inc., Lavaca, AR
McLoud Tel. Co., McLoud
Medicine Park Tel. Co., Medicine Park
Midwestern Tel. Co., Inc., Sentinel
Oklahoma Tel. & Telegraph, Inc., Dustin
Okla.-Western Tel. Co., Clayton
Panhandle Tel. Co-op., Inc., Guymon
Pine Tel. Co., Inc., Broken Bow
*Pioneer Tel. Co-op., Inc., Kingfisher (44,666)
Pottawatomie Tel. Co., Inc., Earlsboro
Salina-Spavinaw Tel. Co., Inc., Salina
Santa Rosa Tel. Co-op. Inc., Vernon, TX
Seneca Tel. Co., Seneca, MO
Shidler Tel. Co., Shidler
Sooner State Tel. Co., Oklahoma City
South Central Tel. Assn., Medicine Lodge, KS
Southwest Oklahoma Tel. Co., Duke
Sulphur Tel. Co., Inc., Sulphur
Telephone & Data Systems, Chicago, IL
   Oklahoma Communication Systems, Inc., Choctaw
Terral Tel. Co., Terral
Totah Tel. Co., Inc., Ochelata
Universal Tel., Inc., Milwaukee, WI
   Mid-America Tel., Inc., Stonewall
Valliant Tel. Co., Valliant

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
OREGON

Beaver Creek Tel. Co., Beaver Creek
*Calif. - Pacific National Corp., Concord, CA (13,713)
Canby Tel. Assn., Canby
Cascade Utilities, Inc., Estacada
Clear Creek Mutual Tel. Co., Oregon City
Colton Tel. Co., Colton
Eagle Tel. System, Richland
Eastern Oregon Tel. Co., Pilot Rock
Gervais Tel. Co., Gervias
Halsey Tel. Co., Halsey
Helix Tel. Co., Helix
Molalla Tel. Co., Molalla
Monitor Co-op. Tel. Co., Woodburn
Monroe Tel. Co., Monroe
Mt. Angel Tel. Co., Mt. Angel
Nehalem Tel. & Telegraph Co., Nehalem
North State Tel. Co., Dufur
Oregon Tel. Corp., Mt. Vernon
Peoples Tel. Co., Lyons
Pine Tel. Systems, Halfway
Pioneer Tel. Co-op., Philomath
St. Paul Co-op. Tel. Assn., St. Paul
Scio Mutual Tel. Assn., Scio
Stayton Co-op. Tel. Co., Stayton
Telephone & Data Systems, Inc., Chicago, IL
Asotin Tel. Co., Asotin, WA
Home Tel. Co., Condon
*Telephone Utilities, Inc., Portland (52,854)
Creswell Tel. Co., Creswell
Northwestern Tel. Systems, Inc., Lebanon
Rose Valley Tel. Co., Lebanon
Telephone Utilities of Eastern Oregon Inc., Spray
Telephone Utilities of Oregon, Inc., Lebanon
Trans-Cascade Tel. Co., Antelope

PENNSYLVANIA

Beallsville Tel. Co., Beallsville
Bentleyville Tel. Co., The, Bentleyville
Breezewood Tel. Co., Breezewood
Buffalo Valley Tel. Co., Lewisburg
Canton Tel. Co., Canton

* Designates #1 and #2 independent telephone companies (ranked by number of
telephones) within that state listing.
PENNSYLVANIA (cont.)

Centerville Tel. Co., Centerville
Citizens Tel. Co. of Kecksburg, Mammoth
Citizens Utilities Co., Stamford, CT
  Big Run Tel. Co., New Bethlehem
  Citizens Utilities Co. of Pennsylvania, New Bethlehem
*Commonwealth Tel. Co., Dallas (235,805)
  Leesport Rural Tel. Co., Leesport
  Lewisberry Tel. Co., Lewisberry
  Sullivan County Tel. Co., Estella
Conestoga Tel. & Telegraph Co., Birdsboro
Coopersburg Tel. Co., Coopersburg
*Denver & Ephrata Tel. & Telegraph Co., Ephrata (52,506)
  Deposit Tel. Co., Deposit, NY
  Enterprise Tel. Co., New Holland
  Hancock Tel. Co., Hancock, NY
  Hickory-Woodrow Tel. Co., Hickory
  Ironton Tel. Co., Ironton
  Lackawaxen Tel. Co., Rowland
  Lakewood Rural Tel. Co., Barnesville
  Laurel Highland Tel. Co., Stahlstown
  Mahoney & Mahantango Tel. Co., Herndon
  Marianna & Scenery Hill Tel. Co., Marianna
  Murdocksville Tel. Co., Murdocksville
  North Eastern Pennsylvania Tel. Co., Forest City
  North Penn Tel. Co., Mansfield
  North Pittsburgh Tel. Co., Gibsonia
    Freeport Tel. & Telegraph Co., Freeport
  Oswayo River Tel. Co., Shinglehouse
  Otto Tel. Co., Inc., Duke Center
  Palmerton Tel. Co., Palmerton
  Pennsylvania Tel. Co., Jersey Shore
  Pymatuning Independent Tel. Co., Greenville
  South Canaan Tel. Co., South Canaan
  Telephone and Data Systems, Inc., Chicago, IL
    Sugar Valley Tel. Co., Loganton
Venus Tel. Corp., Venus
West Jersey Tel. Co., Belvidere, NJ
Yukon-Waltz Tel. Co., Yukon

RHODE ISLAND

No "other" independents

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
SOUTH CAROLINA

Bluffton Tel. & Appliance Co., Inc., Bluffton
Chesnee Tel. Co., Inc., Chesnee
Chester Tel. Co., Chester
*Farmers Tel. Co-op., Inc., Kingstree (44,410)
Fort Mill Tel. Co., Fort Mill
Hargray Tel. Co., Inc., Hilton Head Island
Heath Springs Tel. Co., Heath Springs
Home Tel. Co., Inc., Moncks Corner
Horry Tel. Co-op. Inc., Conway
Lancaster Tel. Co., Lancaster
Lockhart Power Co., Lockhart
Norway Tel. Co., Inc., Norway
Palmetto Rural Tel. Co-op., Inc., Walterboro
Piedmont Rural Tel. Co-op., Inc., Laurens
Pond Branch Tel. Co., Gilbert
Ridge Tel. Co., Inc., Ridge Spring
Ridgeway Tel. Co., Inc., Ridgeway
*Rock Hill Tel. Co., Rock Hill (45,012)
St. Matthews Tel. Co., St. Matthews
Sandhill Tel. Co-op., Inc., Jefferson
Telephone and Data Systems, Inc., Chicago, IL
McClellanville Tel. Co., Inc., McClellanville
St. Stephen Tel. Co., St. Stephen
Williston Tel. Co., Williston
West Carolina Rural Tel. Co-op., Inc., Abbeville

SOUTH DAKOTA

Armour Independent Tel. Co., Armour
Baltic Co-op. Tel. Co., Baltic
Beresford Municipal Tel. Co., Beresford
Brookings Lake Tel. Co., Brookings
Cheyenne River Sioux Tribe Tel. Co., Eagle Butte
*City of Brookings Municipal Tel. Dept., Brookings (13,124)
Consolidated Tel. Co-op., Dickinson, ND
Dakota Co-op. Tel. Co., Inc., Irene
Deuel Tel. Co-op. Assn., Clear Lake
Dickey Rural Tel. Mutual Aid Corp., Ellendale, ND
*Golden West Tel. Co-op. Inc., Wall (9,612)
Great Plains Tel. Co., Keystone
Hanson County Tel. Co., Alexandria
James Valley Co-op. Tel. Co., Groton
Jefferson Tel. Co., Jefferson
Kadoka Tel. Co., Kadoka
Kennebec Tel. Co., Kennebec

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
SOUTH DAKOTA (cont.)

McCook Cooperative Tel. Co., Salem
Midstate Tel. Co., Kimball
Ollig Utilities Co., Ada, MN
   Sioux Valley Tel. Co., Dell Rapids
Peoples Tel. & Telegraph Co., Hot Springs
Pettigrew Tel. Line, Oelrichs
Robert County Tel. Co-op. Assn., New Effington
Rosefield Tel. Co., Marion
Sanborn Tel. Co-op., Woonsocket
Split Rock Tel. Co-op., Inc., Garretson
Stockholm-Strandburg Tel. Co., Stockholm
Sully-Buttes Tel. Co-op., Inc., Highmore
Tri-County Mutual Tel. Co., Emery
Union Tel. Co., Hartford
Valley Tel. Co-op. Assn., Inc., Herreid
Vivian Tel. Co., Vivian
Western Tel. Co., Faulkton
West River Co-op. Tel. Co., Bison
West River Tel. Corp., Hazen, ND
Wood Community Tel. Co., Wood

TENNESSEE

Adamsville Tel. Co., Adamsville
Allied Tel. Co., Little Rock, AR
   Powell Tel. Co., Powell
Ardmore Tel. Co., Ardmore, AR
Ben Lomand Rural Tel. Co-op., Inc., McMinnville
Bledsoe Telephone Co-op., Pikeville
Century Tel. Enterprises, Inc., Monroe, LA
   Claiborne Tel. Co., Inc., New Fazewell
Crockett Tel. Co., Friendship
DeKalb Tel. Co-op., Alexandria
Englewood Tel. Co., Inc., Englewood
Highlands Tel. Co-op., Inc., Sunbright
Humphreys County Tel. Co., New Johnsville
Loretto Tel. Co., Inc., Loretto
Millington Tel. Co., Millington
North Central Tel. Co-op. Inc., Lafayette
Ooltewah-Collegedale Tel. Co., Inc., Collegedale
People's Tel. Co., Inc., Erin
Skyline Tel. Memb. Corp., West Jefferson, NC
*Telephone and Data Systems, Inc., Chicago, IL (52,593)
   Concord Tel. Exchange Inc., Concord
   Tennessee Tel. Co., Halls Crossroads

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
TENNESSEE (cont.)

Tellico Tel. Co., Tellico Plains
*Twin Lakes Tel. Co-op., Gainesboro (27,628)
United Tel. Co., Inc., Chapel Hill
West Kentucky Rural Tel. Co-op., Mayfield, KY
West Tennessee Tel. Co., Bradford
Yorkville Tel. Co-op., Yorkville

TEXAS

Allenco Communications, Carlton
Allied Tel. Co., Little Rock, AR
    Nocona Tel. Co., Nocona
Big Bend Tel. Co., Alpine
Blossom Tel. Co., Inc., Blossom
Brazoria Tel. Co., Brazoria-Churchill
Brazos Tel. Co-op., Inc., Olney
Byers-Petrolia Tel. Co., Byers
Cameron Tel. Co., Sulphur, LA
Campbell Tel. Co-op., Inc., Campbell
Cap Rock Tel. Co., Inc., Spur
Century Tel. Enterprises, Inc., Monroe, LA
    Avery Tel. Co., Hooks
    Caddoan Tel. Co., Plain Dealing, LA
    Hooks Tel. Co., Inc., Hooks
    Karnack Tel. Co., Karnack
    Mustang Tel. Co., Port Arkansas,
Central Texas Tel. Co-op., Inc., Goldthwaite
Coahoma Tel. Co., Inc., Coahoma
Coleman County Tel. Co-op., Inc., Santa Anna
Colmesneil Tel. Co., Colmesneil
Colorado Valley Tel. Co-op., Inc., LaGrange
Comanche County Tel. Co., Inc., Comanche
Community Tel. Co., Inc., Windthorst
Cumby Tel. Co-op., Inc., Cumby
Dell Tel. Co-op., Inc., Dell City
Eastex Tel. Co-op., Inc., Henderson
Electra Tel. Co., Electra
E.N.M.R. Tel. Co-op., Clovis, NM
Etex Tel. Co-op., Inc., Gilmer
Five Area Tel. Co-op., Inc., Muleshoe
Ft. Bend Tel. Co., Rosenberg
Ganado Tel. Co., Inc., Ganado

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
TEXAS (cont.)

Garwood Tel. Co., Garwood
Gary Tel. Co., Gary
Great Southwest Co., Grandview
    Romain Tel. Co., Inc., Plains
    Texas Midland Tel. Co., Grandview
    Trinity Valley Tel. Co., Winnie
Guadalupe Valley Tel. Co-op., Inc., Smithsons Valley
Hill Country Tel. Co-op., Inc., Ingram
Industry Tel. Co., Industry
Kerrville Tel. Co., Kerrville
Knippa Tel. Co., Knippa
Lake Dallas Tel. Co., Inc., Lake Dallas
Lake Tel. Co., Livingston
Lakeside Tel. Co., Inc., Whitehouse
Laward Tel. Exch., Inc., Laward
Lipan Tel. Co., Lipan
Livingston Tel. Co., Livingston
*Lufkin-Conroe Communications Co., Lufkin (76,600)
Mid-Plains Rural Tel. Co-op., Inc., Tulia
Montague Tel. Co., Montague
Muenster Tel. Corp. of Texas, Muenster
    Valley View Tel. Co., Muenster
O'Donnell Tel. Co., Inc., O'Donnell
Panhandle Tel. Co-op., Inc., Guymon, OK
Peeples Tel. Co., Inc., Coolidge
Peoples Tel. Co-op., Inc., Quitman
Poka-Lambro Rural Tel. Co-op., Inc., Tahoka
Riviera Tel. Co., Inc., Riviera
Rocksprings & Nueces Canyon Tel. Co., Inc., Rocksprings
San Marcos Tel. Co., Inc., San Marcos
Santa Rosa Tel. Co-op., Inc., Vernon
South Plains Tel. Co-op., Inc., Lubbock
Southwest Arkansas Tel. Co-op., Inc., Texarkana, AR
*Sugar Land Tel. Co., Sugar Land (28,310)
    Sweeny-Old Ocean Tel. Co., Sweeny
Tatum Tel. Co., Tatum
Taylor Tel. Co-op., Inc., Merkel
    Lueders Tel. Co., Inc., Lueders
Tri-County Tel. Co., Inc., Garrison
Valley Tel. Co-op., Inc., Raymondville
Waterwood Tel. Co., Inc., Waterwood
West Texas Rural Tel. Co-op., Inc., Hereford
West-Tex. Tel. Co-op., Inc., Stanton
XIT Rural Tel. Co-op., Inc., Dalhart

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
UTAH

Albion Tel. Co., Inc., Albion, ID
Beehive Tel. Co., Grouse Creek
Central Utah Tel., Inc., Fairview
*Emery County Farmers Union Tel. Assn., Inc., Orangeville (4,526)
Great Southwest Tel. Corp., Grandview, TX
    Navajo Communications Co. Inc., Window Rock, AZ
Gunnison Tel. Co., Gunnison
Kamas Woodland Tel. Co., Kamas
Manti Tel. Co., Manti
South Central Utah Tel. Assn., Inc., Escalante
*Unitah Basin Tel. Assn., Inc., Roosevelt (3,154)
Union Tel. Co., Mountainview, WY
Utah-Wyoming Tel. Co., Salt Lake City

VERMONT

Franklin Tel. Co., Franklin
Shoreham Tel. Co., Shoreham
*Telephone and Data Systems, Inc., Chicago, IL (7,754)
    Ludlow Tel. Co., Ludlow
    Northfield Tel. Co., Northfield
    Perkinsville Service Corp., Perkinsville
Topsham Tel. Co., West Topsham
*Waitsfield-Fayston Tel. Co., Waitsfield (3,300)

VIRGINIA**

Buggs Island Tel. Co-op., Bracey
Burke's Garden Tel. Co., Burke's Garden
Citizens Tel. Co-op., Floyd
*Clifton Forge-Waynesboro Tel. Co., Staunton (41,291)
    Deerfield Tel. Co., Deerfield
    Merchants & Farmers Tel. Co., Montpelier
    Mountain Grove-Williamsville Tel. Co., Williamsville
    Mutual Tel. Co. of Highland, Inc., Monterey
New Hope Tel. Co., New Hope
North River Tel. Co., Dayton
Pembroke Tel. Co-op., Pembroke
Peoples Mutual Tel. Co. Inc., Gretna
Roanoke & Botetourt Tel. Co., Daleville
Scott County Tel. Co-op., Inc., Gate City

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.

** Does not include Washington, D.C. (see end of list).
VIRGINIA (cont.)

*Shenandoah Tel. Co., Edinburg (19,141)
Telephone and Data Systems, Inc., Chicago, IL
   Amelia Tel. Corp., Amelia
Virginia Hot Springs Tel. Co., Hot Springs

WASHINGTON

Cowiche Tel. Co., Cowiche
*Ellensburg Tel. Co., Ellensburg (21,502)
Hat Island Tel. Co., Langley
Hood Canal Tel. Co., Union
Inland Tel. Co., Uniontown
Inter-Island Tel. Co., Inc., Friday Harbor
Kalama Tel. Co., Kalama
Lewis River Tel. Co., La Center
McDaniel Tel. Co., Salkum
Mashell Tel. Co., Inc., Eatonville
Peninsula Tel. & Telegraph Co., Forks
Pioneer Tel. Co., LaCrosse
Prescott Tel. & Telegraph Co., Roslyn
St. John Tel. Co., St. John
Telephone and Data Systems, Inc., Chicago, IL
   Asotin Tel. Co., Asotin
*Telephone Utilities, Inc., Portland, OR (90,887)
   Telephone Utilities of Washington, Inc.
      (East & West Divisions), Cheney and Gig Harbor
Tenino Tel. Co., Tenino
Toledo Tel. Co., Inc., Toledo
Western Wahkiakum County Tel. Co., Grays River
Whidbey Tel. Co., Langley
Yelm Tel. Co., Yelm

WEST VIRGINIA

*Armstrong Utilities, Inc., Butler, PA (8,500)
   Armstrong Tel. Co., Hamlin
   Ritchie Tel. Co., The, Harrisville
*Century Telephone Enterprises, Inc., Monroe, LA (2,318)
   War Tel. Co., War
   Hardy Tel. Co., Inc., Mathias
   Spruce Knob Seneca Rocks Tel., Inc., Rivertown
   West Side Tel. Co., Morgantown

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
Wisconsin

Almond Tel. Co., Almond
Amery Tel. Co., Amery
Amherst Tel. Co., Amherst
Baldwin Tel. Co., Baldwin
Bayland Tel. Inc., Abrams
Belmont Tel. Co., Platteville
Bloomer Tel. Co., Bloomer
Bruce Tel. Co., Bruce
Casco Tel. Co., Casco
Cencom, Inc., Rushford, MN
  Cencom of Wisconsin, Inc., Milton
Century Telephone Enterprises, Inc., Monroe, LA
  La Crosse Tel. Corp., La Crosse
Chequamegon Tel. Co-op., Inc., Cable
Chibardun Tel. Co-op., Inc., Dallas
Citizens Tel. Co-op., Inc., New Auburn
Clear Lake Tel. Co., Clear Lake
Cochrane Co-op. Tel. Co., Cochrane
Coloma Tel. Co., Coloma
Communications Systems, Inc., Hector, MN
  Indian Head Tel. Co., Inc., Weyerhauser
Coon Valley Farmers Tel. Co., Coon Valley
Crandon Tel. Co., Crandon
Dickeyville Tel. Corp., Dickeyville
Fair Water-Brandon-Alto Tel. Co., Brandon
Farmers Independent Tel. Co., Grantsburg
Farmers Tel. Co., Lancaster
Footville Tel. Co., Footville
Hager City Tel. Co., Hager City
Hillsboro Tel. Co., Hillsboro
Lakefield Tel. Co., Newton
Lakeshore Tel. Co., Cecil
LaValle Tel. Co-op., LaValle
Lemonweir Valley Tel. Co., Camp Douglas
Luck Tel. Co., Luck
Madeline Island Tel. Co., LaPointe
Manawa Tel. Co., Inc., Manawa
Maple Tel. Co-op., Inc., Maple
Marquette-Adams Tel. Co-op., Inc., Oxford
Mid-Plains Tel., Inc., Middleton
Milltown Mutual Tel. Co., Milltown
Mondovi Tel. Co., Mondovi
Mosinee Tel. Co., The, Mosinee
Mt. Horeb Tel. Co., Mt. Horeb
Nelson Tel. Co-op., Durand
Niagara Tel. Co., Niagara
Northeast Tel. Co., Pulaski
*North-West Tel. Co., Tomah (73,536)
Novy's Tel. Co., Kendall
Peoples Tel. Co., Randolph
Platteville Tel. Co., Platteville
Price County Tel. Co., Phillips
Rhinelander Tel. Co., Rhinelander
    Headwaters Tel. Co., Rhinelander
Rib Lake Tel. Co., Rib Lake
Richland Grant Tel. Co-op., Blue River
Rock River Tel. Co., Johnson Creek
St. Croix Tel. Co., New Richmond
Sharon Tel. Co., Sharon
    Bergen Tel. Co., Sharon
Shell Lake Tel. Co., Shell Lake
Siren Tel. Co., Inc., Siren
Somerset Tel. Co., Inc., Somerset
Southeast Tel. Co., Waterford
Southwest Wisconsin Communications, Inc., Platteville
    Cuba City Tel. Exchange Co., Platteville
Spring Valley Tel. Co., Inc., Spring Valley
State Long Distance Tel. Co., Elkhorn
Sullivan Tel. Co., Sullivan
*Telephone & Data Systems, Chicago, IL (64,913)
    Badger State Tel. Co., Inc., Neillsville
    Black Earth Tel. Co., Black Earth
    Bonduel Tel. Co., Bonduel
    Burlington Brighton & Wheatland Tel. Co., Burlington
    Central State Tel. Co., Vesper
    Dodge County Tel. Co., Reeseville
    Fennimore Tel. Co., Fennimore
    Greenwood Tel. Co., Greenwood
    Midway Tel. Co., Medford
    Mosel & Centerville Tel. Co., Cleveland
    Mt. Vernon Tel. Co., Verona
    Peoples Tel. Co., Mt. Hope
    Scandinavia Tel. Co., Iola
    Stockbridge & Sherwood Tel. Co., Sherwood
    Valders Tel. Co., Valders
    Waunakee Tel. Co., Waunakee
Tenney Tel. Co., Alma
Thorp Tel. Co., Thorp
Tri-County Tel. Co-op., Strum
Turtle Lake Tel. Co., Turtle Lake
Union Tel. Co., Plainfield
United Tel. Co., Monroe

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
WISCONSIN (cont.)

Universal Tel., Inc., Milwaukee, WI
  Badger Tel. Co., Inc., Webster
  Chippewa County Tel., Inc., Jim Falls
  Cream Valley Tel. Co., Hawkins
  Forestville Tel. Co., Forestville
  Frederic Tel. Co., Frederic
  Hammond Tel. Co., Hammond
  Lakeland Tel. Co., Minong
  Larsen-Readfield Tel. Co., Larsen
  Monroe County Tel. Co., Sparta
  Ogema Tel. Co., Hawkins
  Osceola Tel. Co., Osceola
  Poplar Tel. Co., Inc., Minong
  Solon Springs Tel. Co., Minong
  Universal Tel. Co. of Northern Wisconsin Inc., Mantowish Waters

Union Tel. Co., Plainfield
United Tel. Co., Monroe
Urban Tel. Corp., Clintonville
Vernon Tel. Co-op., Westby
Viroqua Tel. Co., Viroqua
Wayside Tel. Co., Greenleaf
West Wisconsin Tel. Co-op., Downsville
Weyauwega Tel. Co., Weyauwega
Wittenberg Tel. Co., Wittenberg
Wood County Tel. Co., Wisconsin Rapids

WYOMING

Chugwater Tel. Co., Chugwater
Cokeville Tel. Co., Inc., Cokeville
Dubois Tel. Exchange, Inc., Dubois
Eden Valley Tel. Co., Farson-Eden
Medicine Bow Tel. Co., Medicine Bow
Range Tel. Co-op., Inc., Forsyth, MT
Silver Star Tel. Co., Inc., Freedom
Tri-County Tel. Assn., Inc., Basin
*Union Tel. Co., Mountainview (3,700)
Valley Tel. Co., Baggs
*Wyoming Tel. Co., Inc., Pinedale (3,818)

WASHINGTON, D.C.

Telecommunications Concepts, Inc., Fairfax, VA
Potomac Telecommunications, Ltd., Washington, D.C. (private telephone company serving only the Washington metropolitan area)

* Designates #1 and #2 independent telephone companies (ranked by number of telephones) within that state listing.
APPENDIX B:
COMPUTER GRAPHICS USED TO PLOT MAPS

Computer graphics (the producing of graphical images with the aid of a computer) has been used since the early 1960s, but, for over a decade, nearly all graphics equipment was large and very expensive. During the 1970s, less expensive minicomputers and CRT displays became available, and storage capabilities began to expand with the addition of floppy disks and tape drives. Soon after, users discovered the advantages of digitizing (assigning coordinate values to a point or series of points which generate lines or "pictures" which are stored in some data storage device).

One of the most important advantages of using interactive graphing is its capability to update data with very minimal effort. Because of this, a number of organizations that rely on geographic and demographic statistics are using interactive graphic systems to update their maps of population densities, river drainages, transportation networks, utility lines, etc. (Phillips, 1974; Emery, 1981; Jenkins, 1981; Hootnick, 1981).

This updating capability convinced the authors that the telephone maps in this report should be plotted via an interactive computer system. The Tektronix graphics system that was used consisted of these units:

4054, a 64K 16-bit high resolution desktop graphic computer;
4907, a file manager with three floppy disk drives;
4956, a 36" X 48" graphic tablet with a push-button cursor;
4631, a high-quality image hard copy unit; and
4662, an intelligent interactive digital plotter.
The computer software was purchased from Arthur Ungar of ICONICA, Oakland, CA. His graphing package, "Simple Handling of Areal Data Expressions" (known as SHADE II), was the only one that not only provided facilities for map digitizing, data input, editing, and display, but also did not require the use of a mainframe computer. As an added bonus, it also had the capability to compute the polygon areas owned by each telephone company and shade specified boundaries within each of these.

Digitizing of the maps was accomplished by the use of the Tektronix graphics tablet. The map boundaries were traced by recording enough consecutive points to accurately outline every polygon representing any telephone company area. The coordinates of each point were recorded in the computer memory by use of a four-button cursor. The four cursor codes instructed the computer to: (1) input the point as one of a continuing series, representing a line, (2) close up the boundary of the current polygon, (3) duplicate points from any previously digitized polygon (when it had some part of its boundary contiguous with the polygon now being digitized), or (4) duplicate the points (and reverse the direction, thus subtracting the area) of an interior polygon totally enclosed within a larger polygon.

In order to insure proper definition and resolution of points (in case any map needed to be duplicated or corrected), each map was given a scale by digitizing two points and entering the coordinates of these two points into the computer. If a key to scale wasn't included on the original telephone maps, an arbitrary scale was chosen, depending upon the required resolution for that map. The software allowed nine distinct types of shading within the polygons by instructing the computer to use lines with varying angles and spacing.
The SHADE II software proved to be a fortunate choice for our map digitizing, because it had a number of very useful features that seemed "made to order" for our purposes. The most useful feature was its extensive editing capability. This not only permitted changes in telephone company areas (depicted as polygons on the maps), but also provided for the reclassification, the deletion, or the addition of any polygon. For example, in Figure B-1, the second polygon of Company C in New York was labelled C2. If, sometime in the future, this area were to be sold to Company Y (see polygon labelled Y1 in the figure), the editing capabilities of SHADE II could be used to quickly reclassify and reshape the C2 polygon. This maneuver would also subtract 152 sq. mi. (the area of C2) from the total Company C area and add it to the total area for Company Y.

Another very useful feature was the "map window" that permitted the selective viewing and digitizing of any portion of a total map. When very large maps were to be digitized, they were divided into sections so as to permit more working detail. Texas, for example, was completed as four separate digitized sections. Because the coordinates of each were carefully recorded, individual sections could later be combined into a single map. In the case of Texas, the final coordinated map was printed in three sections which appear as Figures 43a, 43b, and 43c.

Only a few problems were encountered while using the SHADE II software. These occurred because the preparation of the telephone maps required more complicated procedures than those needed for most thematic maps. Three changes were made (with the assistance and approval of Mr. Ungar) to modify the software for the telephone map digitizing. The first change was to increase the maximum number of points per polygon from 300 to 1700. To do this, it was necessary to gain
FIGURE B-1
Computer-labelled polygon areas in New York.
more memory by reducing the maximum number of polygons per map window from 60 to 35 and cancelling two SHADE II functions (overlay and grid) that were not needed. However, the digitizing of some of the larger polygons required even more points; so a second modification was made which permitted lines to be flagged "invisible" -- a technique by which large polygons could be split into smaller polygons with invisible lines between them. (See the B Company polygons on Figure B-1.) The third change was done for convenience. It converted the ratios of the SHADE II software to calculations of the square miles within each polygon and summarized the total area for all polygons comprising a single telephone company.

This updated version of the telephone areas serviced by Bell and the independent telephone companies should be more useful than the 1973 report since it not only includes all current telephone company boundary changes, but it also was drafted in a manner (interactive computer graphics) that permits almost instantaneous corrections to, or revisions of, any of the telephone company areas.

REFERENCES


**BIBLIOGRAPHIC DATA SHEET**

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