

# **Universal Service Monitoring Report**

CC Docket No. 96-45 WC Docket No. 02-6 WC Docket No. 02-60 WC Docket No. 06-122 WC Docket No. 10-90 WC Docket No. 11-42 WC Docket No. 13-184 WC Docket No. 14-58

2021

(Data Received Through September 2021)

Prepared by Federal and State Staff for the

Federal-State Joint Board on Universal Service

This report is available for reference in the FCC's Reference Information Center, 45 L Street, NE, Washington, DC 20554. Copies may be purchased by contacting Best Copy and Printing, Inc., 45 L Street, NE, Washington, DC 20554, telephone (800) 378-3160, or via their website at <a href="www.bcpiweb.com">www.bcpiweb.com</a>. The report can also be downloaded from the FCC's Federal-State Joint Board Monitoring Reports website at <a href="http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports">http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports</a>.

### **Table of Contents**

| Introduction and Summary                             | 5  |
|--|----|
| 2021 Monitoring Report Supplementary Material        |    |
| Section 1 – Revenues and Contributions               | 8  |
| Section 2 – Lifeline (Low Income)                    | 28 |
| Section 3 – Connect America Fund (High Cost) Program | 38 |
| Section 4 – E-Rate (Schools and Libraries)           | 47 |
| Section 5 – Rural Health Care                        | 51 |
| Section 6 – Subscribership (Voice and Internet)      | 54 |
| Section 7 – Price Indices                            | 73 |

## **Report Tables**

| Table 1.1 – Filer Revenues by Service Type: 2011 – 2020   | 9       |
|---|---------|
| Table 1.2 – Filer Revenues, Wholesale vs. Retail: 2011 – 2020 <sup>1</sup>                                    | 11      |
| Table 1.3 – 2020 Filer Revenues by Service Type: Top 10 Affiliated Entities vs. Other Companies               | 13      |
| Table 1.4 – Telecommunications Revenue Reported on FCC Form 499-Q: 2019 – 2021                                | 15      |
| Table 1.5 – USF Contribution Base by Year: 2011 – 2020 <sup>1</sup>   | 17      |
| Table 1.6 – Universal Service Fund Contribution Factor <sup>1</sup>   | 18      |
| Table 1.7 – Billed Interstate and International Retail Communications Revenues by Top 10 Affiliated Entiti    | ies vs. |
| Other Companies: 2011 – First Half 2021 <sup>1</sup>  | 19      |
| Table 1.8 – End User Telecommunications Revenue by State: 2019  | 20      |
| Table 1.9 – Universal Service Support Mechanisms by State: 2020   | 21      |
| Table 1.10 – Universal Service Disbursements 2001 – 2020  | 23      |
| Table 1.11 – Universal Service Program Requirements and Contribution Factors for 2021                         | 24      |
| Table 1.12 - Number of Telecommunications Service Providers by Size of Business                               | 26      |
| Table 2.1 - Lifeline Subscribers and Link Up Beneficiaries  | 29      |
| Table 2.2 – Low Income Claims   | 30      |
| Table 2.3 – Low Income Claims by State: 2020  | 31      |
| Table 2.4 - Low-Income Claims Received by ILECs and Competitive ETCs  | 32      |
| Table 2.5 – Low-Income Claims by Program and by Affiliated Entities: 2020                                     | 33      |
| Table 2.6 – Total Monthly Lifeline Subscribers Since January 2016   | 34      |
| Table 2.7 – Lifeline De-Enrollments or Scheduled De-Enrollments Recertification by State in 2020 <sup>1</sup> | 35      |
| Table 2.8 – Low-Income Subscribers by State in 2020 by Facilities Type of Carrier                             | 36      |
| Table 2.9 – Lifeline Subscribers by Type of Service: 2020   | 37      |
| Table 3.1 – High-Cost Support Fund Claim History  | 40      |
| Table 3.2 – High-Cost Support Fund Claim History – Rate of Return   | 41      |
| Table 3.3 – High-Cost Support Fund Claim History – Price Cap  | 42      |
| Table 3.4 – High-Cost Support Fund Claim History – Competitive Eligible Telecommunications Carriers           | 43      |
| Table 3.5 – High-Cost Support Fund Claims – States: 2020  | 44      |
| Table 3.6 – Annual High-Cost Fund Support Claims – Affiliates: 2018 – 2020                                    | 45      |
| Table 3.7 – High-Cost Support Fund Claims – Affiliates: 2020  | 46      |
| Table 4.1 – Schools and Libraries Funding Commitments and Disbursements by Applicant Type and Year            | 48      |
| Table 4.2 – Schools and Libraries Funding Commitments and Disbursements from Program Inception through        | ıgh     |
| June 30, 2021 by State and Applicant Type   | 50      |
| Table 5.1 – Rural Health Care Funding Commitments and Disbursements by Program and Year                       | 52      |
| Table 5.2 – Rural Health Care Funding Commitments and Disbursements from Program Inception                    | 53      |
| Table 6.1 – Household Voice Subscribership in the United States, 1983 – 2021                                  | 56      |

| Table 6.2 – Household Voice Penetration by Income, 1997 – 2021  | 57  |
|---|-----|
| Table 6.3 – Nominal Dollar Equivalents by Year  | 58  |
| Table 6.4 – Historical Voice Penetration Estimates  | 59  |
| Table 6.5 – Voice Penetration by Selected Demographic Characteristics                                 | 60  |
| Table 6.6 – Voice Subscribership by State, 2014 – 2019  | 61  |
| Table 6.7 – Voice Penetration by State, Selected Years  | 62  |
| Table 6.8 – Household Voice Penetration by State and Income, 2021                                     | 63  |
| Table 6.9 – Internet Use by Selected Characteristics, 2019  | 64  |
| Table 6.10 – High-Speed Internet Penetration for Households by State, 2015 – 2019 <sup>1</sup>        | 65  |
| Table 6.11 – Residential Fixed Connections per Household by Speed Tier as of December 31, 2020        | 66  |
| Table 6.12 - Telephone Service, Internet Access, Telephone Expenses, and Internet Expenses in Low-Inc | ome |
| Households  | 67  |
| Table 6.13 – Switched Access Lines and Interconnected VoIP Subscribers for ILECs                      | 68  |
| Table 6.14 – Fixed Connections for ILECs  | 69  |
| Table 6.15 – Fixed Deployments for ILECs  | 70  |
| Table 6.16 – Overview of Broadband Deployment by High-Cost Support Mechanism                          | 71  |
| Table 6.17 – High Cost Supported Broadband Deployment by State  | 72  |
| Table 7.1 – Long-Term Changes for Various Price Indices   | 74  |
| Table 7.2 – Annual Changes in CPI Telephone Services and all Items Indices                            | 75  |
| Table 7.3 – Monthly Consumer Price Indices  | 76  |

# Universal Service Monitoring Report 2021



#### **Introduction and Summary**

The purpose of the *Monitoring Report* is to observe the impacts of universal service support mechanisms and the method used to finance them.<sup>1</sup> Initiated by the Federal Communications Commission in 1997, this is the twenty-fourth such report, prepared by federal and state staff members for the Federal-State Joint Board on Universal Service (Universal Service Joint Board).<sup>2</sup> Unless otherwise noted, this report is based on information available as of September 2021.

The *Monitoring Report* incorporates data from several sources, including the National Exchange Carrier Association (NECA) and the Universal Service Administrative Company (USAC). USAC collects information from both contributors to, and beneficiaries of, the Universal Service Fund, including incumbent local exchange carriers (ILECs), competitive eligible telecommunications carriers (competitive ETCs), schools, libraries, and health care providers. NECA, at the direction of the Commission, provides information to USAC used to administer certain aspects of the high-cost program.

Section 1 of the report provides an update on industry revenues, universal service program funding requirements, and contribution factors. Sections 2 through 5 provide the latest data on the low-income, high-cost, schools and libraries, and rural health care support mechanisms. Section 6 presents recent Census and Bureau of Labor Statistics data on voice telephony subscribership and expenses taken from the Current Population Survey, the American Community Survey and the Consumer Expenditure Survey as well as data on telephone subscribership by income by state. It also includes data on residential Internet subscribership and expenses. Section 7 includes updated Consumer Price Index data.

This report is available on the FCC's Federal-State Joint Board Monitoring Reports website, located at <a href="http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports">http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports</a>. The tables in this report are also available separately as spreadsheets on the website. The *Monitoring Report* is published once a year, but data received in advance of the next *Monitoring Report* will be made available on an interim basis in separate staff reports or in raw data files (such as most NECA filings used in the *Monitoring Report*) on the Industry Analysis Division's Data and Statistical Reports Internet site, located at <a href="https://www.fcc.gov/economics-analytics/industry-analysis-division/iad-data-statistical-reports">https://www.fcc.gov/economics-analytics/industry-analysis-division/iad-data-statistical-reports</a>.

Supplementary material is available in a single compressed (.zip) format file at <a href="http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports">http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports</a>. The contents of this file are provided at the end of this introduction.

Federal-State Joint Board on Universal Service

<sup>&</sup>lt;sup>1</sup> In 1997, the Commission adopted rules to implement section 254 largely based on the recommendations of the Universal Service Joint Board and delegated to the Common Carrier Bureau (the predecessor to the Wireline Competition Bureau), in consultation with the state staff, the creation of a new monitoring program to replace a similar program in CC Docket No. 87-339 that previously resulted in a series of nineteen *Monitoring Reports*. *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9218, para. 869 (1997) (*Universal Service First Report and Order*). *See* 47 C.F.R. § 54.702(i).

<sup>&</sup>lt;sup>2</sup> The last report was released in January 2021. *Universal Service Monitoring Report*, 2020, CC Docket No. 96-45 et al. (Data Received Through September 2020) *available at* <a href="https://www.fcc.gov/general/federal-state-joint-board-monitoring-reports">https://www.fcc.gov/general/federal-state-joint-board-monitoring-reports</a>.

We continue to look for ways to present universal service data in a way that is useful for the public. Last year, we began providing additional information on the Lifeline program. Table 2.6 includes data on the share of Lifeline subscribers using wireless technology. We also added Table 2.8 which breaks out Lifeline subscribers by whether they are voice only, broadband only, or bundle subscribers and Supplemental Table 2.5 which further breaks this out between technology. In 2019, we added a new chart in Section 6 showing nationwide deployment information requested by the Joint Board. In 2020, we added a supplemental table presenting deployment data at the state level. This year we add a new table in Section 1 which breaks out the number of providers by type and size.

We invite questions or comments on this report via email at <a href="mailto:OEA-IADreports@fcc.gov">OEA-IADreports@fcc.gov</a> with subject: 2021 Monitoring Report.

#### 2021 Monitoring Report Supplementary Material

This list shows the folders (underlined) and filenames contained in the 2021 Monitoring Report Supplementary Material zip file available at <a href="http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports">http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports</a>.

Revenues and Contributions S.1.1. Detailed Telecommunications Revenue - 2020

S.1.2, Revenue Details - Historical

S.1.3. Estimating End-User Revenue by State - 2019 Tables

S.1.4. Estimating End-User Revenue by State – 2019 Technical Appendix

Low Income S.2.1. LI Support - by State

S.2.2. LI Support - by Study Area

S.2.3. LI Subscribers and Beneficiaries - by State S.2.4. ETCs Receiving Lifeline Support - 2020

S.2.5. Lifeline Subscribers by Service Type, State and Technology

High Cost Claims - by State

S.3.2. HC Claims - by Study Area

S.3.3. HC RoR Claims per Line - by Study Area

S.3.4. HC Support Study Areas – 2020

S.3.5 HC Reductions due to Cap on Per-Line Support -

by Study Area

Disbursements S.3.6. HC Disbursements - by State

S.3.7. HC Disbursements - by Study Area S.3.8. HC Performance Default Penalty

Schools and Libraries S.4.1. SL Funds - by Service Type, State, and Funding Year

S.4.2. SL Cumulative Funds - by Service Type and State S.4.3. SL Disbursements - by Service Provider Type

S.4.4. SL Funds per Student - by State

S.4.5. SL Funds - by Applicant Type, State, and Funding Year

Rural Health Care S.5.1. RHC Funds - by State, Program, and Year

S.5.2. RHC Disbursements - by Speed, Year, and State S.5.3. RHC Disbursements - by Speed, Year, and HCP Type

S.5.4. RHC Disbursements per Person - by State S.5.5. RHC Funds - by HCP Type, Program, and Year

Subscribership and Minutes of Use

S.6.1. Broadband Subscribership by County, Congressional District & State

S.6.2. ILEC Interstate Switched Access Minutes of Use - by Study Area

S.6.3. ILEC Interstate Switched Access Minutes of Use - by Tier

S.6.4. ILEC Interstate Switched Access Minutes of Use - by State

S.6.5. High-Cost Supported Broadband Deployment by SAC and Year

S.6.6. High-Cost Supported Broadband Obligation & Deployment by SAC

S.6.7. Fine Detail Obligation and Deployment for AK Plan



#### **Section 1 – Revenues and Contributions**

In response to the Telecommunications Act of 1996, the Commission established universal service mechanisms to help ensure that all Americans have access to affordable telecommunications service. Congress mandated that these programs be supported by contributions from every telecommunications carrier that provides interstate telecommunications, and other providers of telecommunications services if the Commission finds contributions from such providers to be in the public interest. The tables in this section provide an overview of the revenues of the U.S. telecommunications industry and the associated contributions to the universal service support mechanisms. The tables are based on information filed with the Commission in FCC Forms 499-A and 499-Q. To the extent that certain telecommunications industry revenues are not subject to contributions, such revenues may not be fully captured in these tables.

Additional information about how contributions support universal service can be found at the Commission's website <a href="http://www.fcc.gov/encyclopedia/contribution-methodology-administrative-filings">http://www.fcc.gov/encyclopedia/contribution-methodology-administrative-filings</a> and on USAC's website at <a href="http://www.usac.org">http://www.usac.org</a>. Please note that that the information provided in this report is based upon Commission rules in effect in 2020.

#### Table 1.1 – Filer Revenues by Service Type: 2011 – 2020

(in Millions of Dollars)

|  |  | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
|--|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|  | Local Exchange 1                                 | \$38,987  | \$35,298  | \$32,922  | \$30,537  | \$28,410  | \$25,900  | \$23,208  | \$20,771  | \$18,806  | \$16,115  |
|  | Pay Telephone <sup>2</sup>                       | 136       | 368       | 359       | 322       | 286       | 271       | 269       | 265       | 280       | 286       |
|  | Local Private Line <sup>3</sup>                  | 28,243    | 29,072    | 29,632    | 31,222    | 32,191    | 30,472    | 30,272    | 26,906    | 25,560    | 21,608    |
| Local Service                            | VoIP Local <sup>4</sup>                          | 8,110     | 8,990     | 10,103    | 11,136    | 11,968    | 14,398    | 14,428    | 14,503    | 14,355    | 14,317    |
| and                                      | Other Local <sup>5</sup>                         | 3,145     | 2,462     | 1,746     | 1,450     | 1,493     | 1,510     | 1,749     | 1,710     | 1,265     | 1,164     |
| Payphone Revenues                        | Federal and State USF Support 6                  | 5,620     | 6,282     | 5,991     | 5,786     | 6,137     | 6,016     | 5,904     | 5,994     | 6,422     | 6,484     |
|  | Subscriber Line Charges <sup>7</sup>             | 6,703     | 6,195     | 5,968     | 5,511     | 5,175     | 4,787     | 4,431     | 4,049     | 3,700     | 3,345     |
|  | Access 8   | 7,368     | 6,787     | 6,384     | 5,006     | 4,836     | 3,809     | 3,312     | 2,850     | 2,575     | 2,257     |
|  | <b>Total Local Service and Payphone Revenues</b> | 98,313    | 95,455    | 93,105    | 90,969    | 90,495    | 87,162    | 83,572    | 77,048    | 72,964    | 65,576    |
| Mobile Revenues                          | Total Mobile Service Revenues <sup>9</sup>       | 107,392   | 105,147   | 98,160    | 86,996    | 75,262    | 65,636    | 56,952    | 52,890    | 39,631    | 33,379    |
|  | Operator <sup>10</sup>                           | 3,162     | 3,373     | 3,064     | 2,699     | 2,351     | 1,876     | 1,844     | 1,810     | 1,711     | 1,464     |
|  | VoIP Toll <sup>11</sup>                          | 4,250     | 4,693     | 4,999     | 5,139     | 5,238     | 3,447     | 3,768     | 3,925     | 3,518     | 2,491     |
| Toll Service Revenues                    | Non-Operator Switched Toll 12                    | 23,307    | 20,718    | 18,346    | 17,354    | 16,261    | 14,850    | 11,841    | 11,068    | 9,913     | 9,054     |
| Ton Service Revenues                     | Long Distance Private Line 13                    | 11,443    | 12,221    | 12,542    | 12,293    | 12,778    | 13,353    | 13,316    | 12,850    | 11,991    | 10,698    |
|  | Other Long Distance 14                           | 4,186     | 5,155     | 3,886     | 3,965     | 3,050     | 2,816     | 3,306     | 2,233     | 2,273     | 2,268     |
|  | Total Toll Service Revenues                      | 46,347    | 46,159    | 42,837    | 41,450    | 39,678    | 36,342    | 34,075    | 31,885    | 29,405    | 25,975    |
| Total Local, Mobile, and Toll Revenues   | Total Local, Mobile, and Toll Revenues           |           | 246,761   | 234,102   | 219,416   | 205,436   | 189,141   | 174,599   | 161,824   | 142,000   | 124,930   |
| Universal Service Surcharges 15          |  | 8,986     | 9,964     | 8,986     | 9,083     | 9,041     | 9,135     | 8,319     | 8,438     | 8,447     | 8,059     |
| Total Telecommunications Revenues 16     |  | 261,038   | 256,725   | 243,088   | 228,499   | 214,477   | 198,276   | 182,918   | 170,262   | 150,447   | 132,989   |
| Total Non-Telecommunications Revenues 17 |  | 214,538   | 219,548   | 251,892   | 268,804   | 301,121   | 311,404   | 321,597   | 337,212   | 361,245   | 379,509   |
| Total Reported Revenues                  |  | \$475,576 | \$476,272 | \$494,981 | \$497,303 | \$515,598 | \$509,679 | \$504,516 | \$507,474 | \$511,692 | \$512,497 |

<sup>&</sup>lt;sup>1</sup> The sum of Lines 303.1a, 303.2a, 404.1a, 404.2a, and 404.3a from Form 499-A.

<sup>&</sup>lt;sup>2</sup> The sum of Lines 306a and 407a from Form 499-A.

<sup>&</sup>lt;sup>3</sup> The sum of Lines 305.1a, 305.2a, and 406a from Form 499-A.

<sup>&</sup>lt;sup>4</sup> The sum of Lines 404.4a and 404.5a from Form 499-A.

<sup>&</sup>lt;sup>5</sup> The sum of Lines 307a and 408a from Form 499-A.

<sup>&</sup>lt;sup>6</sup> Line 308a from Form 499-A.

<sup>&</sup>lt;sup>7</sup> Line 405a from Form 499-A. As of 2012, includes Access Recovery Charge (ARC).

<sup>&</sup>lt;sup>8</sup> The sum of Lines 304.1a and 304.2a from Form 499-A.

<sup>&</sup>lt;sup>9</sup> The sum of Lines 309a, 409a, and 410a from Form 499-A.

<sup>&</sup>lt;sup>10</sup> The sum of Lines 310a, 411a, 412a, and 413a from Form 499-A.

<sup>11</sup> Line 414.2a from Form 499-A.

<sup>&</sup>lt;sup>12</sup> sum of Lines 311a and 414.1a from Form 499-A.

- The sum of Lines 312a and 415a from Form 499-A.
- <sup>14</sup> The sum of Lines 313a, 314a, 416a, and 417a from Form 499-A.
- Line 403a from Form 499-A. The surcharge figure indicates only surcharges that have been explicitly reported as such in Form 499-A and does not account for implicit surcharge revenues where carriers collect the surcharge through higher prices.
- <sup>16</sup> Subtotal includes surcharge.
- <sup>17</sup> Line 418a from Form 499-A.

Note: Detail may not add to totals due to rounding.

Source: FCC Form 499-A for 2020 based on filings as of August 23, 2021.

Table 1.2 – Filer Revenues, Wholesale vs. Retail: 2011 – 2020<sup>1</sup> (in Millions of Dollars)

|  |  | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      |
|--|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|  | Local Service 3,4                          | \$39,807  | \$39,843  | \$39,101  | \$37,983  | \$38,976  | \$36,180  | \$35,501  | \$32,701  | \$31,224  | \$26,122  |
|  | Mobile Service <sup>5</sup>                | 5,512     | 5,570     | 5,384     | 5,339     | 5,025     | 4,601     | 3,463     | 3,403     | 3,564     | 4,588     |
| Wholesale                              | Toll Service <sup>6</sup>                  | 11,921    | 11,722    | 10,911    | 10,485    | 9,955     | 9,714     | 8,519     | 7,775     | 6,899     | 6,642     |
| (Carrier's Carrier) Telecommunications | <b>Total Wholesale Revenues</b>            | \$57,239  | \$57,135  | \$55,396  | \$53,807  | \$53,955  | \$50,496  | \$47,484  | \$43,879  | \$41,687  | \$37,352  |
| Revenues <sup>2</sup>                  | Intrastate <sup>7</sup>                    | 20,379    | 18,895    | 17,236    | 16,174    | 15,775    | 13,749    | 13,095    | 11,737    | 11,481    | 11,443    |
|  | Interstate and International 8,9           | 36,861    | 38,240    | 38,160    | 37,633    | 38,180    | 36,747    | 34,389    | 32,142    | 30,206    | 25,909    |
|  | Percentage Interstate/International        | 64 %      | 67 %      | 69 %      | 70 %      | 71 %      | 73 %      | 72 %      | 73 %      | 72 %      | 69 %      |
|  | Local Service 3,10                         | \$58,506  | \$55,612  | \$54,004  | \$52,986  | \$51,519  | \$50,982  | \$48,071  | \$44,347  | \$41,740  | \$39,454  |
|  | Mobile Service 11                          | 101,881   | 99,577    | 92,776    | 81,657    | 70,238    | 61,035    | 53,489    | 49,487    | 36,067    | 28,790    |
| Retail                                 | Toll Service 12                            | 34,426    | 34,438    | 31,927    | 30,966    | 29,723    | 26,628    | 25,556    | 24,110    | 22,506    | 19,333    |
|  | Universal Service Surcharges 13            | 8,986     | 9,964     | 8,986     | 9,083     | 9,041     | 9,135     | 8,319     | 8,438     | 8,447     | 8,059     |
| Telecommunications                     | <b>Total Retail Revenues</b>               | \$203,798 | \$199,590 | \$187,693 | \$174,692 | \$160,522 | \$147,780 | \$135,435 | \$126,383 | \$108,760 | \$95,637  |
| Revenues                               | Intrastate <sup>14</sup>                   | 133,475   | 129,468   | 119,294   | 107,847   | 96,592    | 87,598    | 79,702    | 73,284    | 61,296    | 52,400    |
|  | Interstate and International 1,8, 15       | 70,323    | 70,122    | 68,399    | 66,846    | 63,930    | 60,181    | 55,733    | 53,098    | 47,464    | 43,236    |
|  | Percentage Interstate/International        | 35 %      | 35 %      | 36 %      | 38 %      | 40 %      | 41 %      | 41 %      | 42 %      | 44 %      | 45 %      |
|  | Local Service <sup>3</sup>                 | \$98,313  | \$95,455  | \$93,105  | \$90,969  | \$90,495  | \$87,162  | \$83,572  | \$77,048  | \$72,964  | \$65,576  |
|  | Mobile Service                             | 107,392   | 105,147   | 98,160    | 86,996    | 75,262    | 65,636    | 56,952    | 52,890    | 39,631    | 33,379    |
|  | Toll Service                               | 46,347    | 46,159    | 42,837    | 41,450    | 39,678    | 36,342    | 34,075    | 31,885    | 29,405    | 25,975    |
| Total Telecommunications<br>Revenues   | Universal Service Surcharges <sup>13</sup> | 8,986     | 9,964     | 8,986     | 9,083     | 9,041     | 9,135     | 8,319     | 8,438     | 8,447     | 8,059     |
| (Wholesale + Retail)                   | <b>Total Telecommunications Revenues</b>   | \$261,038 | \$256,725 | \$243,088 | \$228,499 | \$214,477 | \$198,276 | \$182,918 | \$170,262 | \$150,447 | \$132,989 |
|  | Intrastate                                 | 153,854   | 148,363   | 136,530   | 124,021   | 112,367   | 101,347   | 92,797    | 85,022    | 72,777    | 63,843    |
|  | Interstate and International <sup>8</sup>  | 107,184   | 108,362   | 106,559   | 104,479   | 102,110   | 96,929    | 90,121    | 85,240    | 77,670    | 69,146    |
|  | Percentage Interstate/International        | 41 %      | 42 %      | 44 %      | 46 %      | 48 %      | 49 %      | 49 %      | 50 %      | 52 %      | 52 %      |
| Total Non-Telecommunicati              | ions Revenues                              | \$214,538 | \$219,548 | \$251,892 | \$268,804 | \$301,121 | \$311,404 | \$321,597 | \$337,212 | \$361,245 | \$379,509 |
| <b>Total Reported Revenues</b>         |  | \$475,576 | \$476,272 | \$494,981 | \$497,303 | \$515,598 | \$509,679 | \$504,516 | \$507,474 | \$511,692 | \$512,497 |

Data include revenues for *de minimis* filers, as well as for other carriers that are exempt from universal service contribution requirements.

Wholesale revenues are reported on the FCC Form 499-A as sales to other universal service contributors for resale. This includes, for example, access services that local exchange carriers provide to toll carriers. Sales to de minimis resellers, end-user customers, government-only providers, international-only providers, and any other non-contributors are treated as end-user revenues. Filers contribute to the universal service funding mechanisms based on their end-user interstate and international revenues. See Table 1.5 for further details on the USF (Universal Service Fund) contribution base.

2

Payphone revenues and interconnected Voice over Internet Protocol (VoIP) revenues are included with local service revenues in this table.

The sum of Lines 303a to 308a from Form 499-A.

Line 309a from Form 499-A.

15

- The sum of Lines 310a to 314a from Form 499-A.
- The sum of Lines 303a to 314a, minus the sum of Lines 303d to 314d, minus the sum of Lines 303e to 314e from Form 499-A.
- Revenues from calls that both originate and terminate in foreign points are reported as end-user revenues and are included in this table, but are not included in the universal service contribution base. This line best represents the USF contribution base, which is further described in Table 1.5.
- The sum of Lines 303d to 314d, plus the sum of Lines 303e to 314e from Form 499-A.
- The sum of Lines 404a to 408a from Form 499-A.
- The sum of Lines 409a and 410a from Form 499-A.
- <sup>12</sup> The sum of Lines 411a to 417a from Form 499-A.
- Line 403a from Form 499-A. Surcharges are contribution amounts passed through to end users.
- The sum of Lines 403a to 417a, minus the sum of Lines 403d to 417d, minus the sum of Lines 403e to 417e from Form 499-A.

This line best represents the USF (Universal Service Fund) contribution base, which is further described in Table 1.5. Amounts are calculated using the sum of Lines 403d to 417d, plus the sum of Lines 403e to 417e from Form 499-A. This is different from billed interstate and international end user revenue, which does not include international-to-international revenues and uncollected revenues.

Note: Detail may not add to totals due to rounding.

Source: FCC Form 499-A for 2020 based on filings as of August 23, 2021.

Table 1.3 – 2020 Filer Revenues by Service Type: Top 10 Affiliated Entities vs. Other Companies (in Millions of Dollars)

|  |  | Top 10 Affiliated<br>Entities <sup>1</sup> | Other<br>Companies | Total     |
|--|--|--|--------------------|-----------|
|  | Local Exchange <sup>2</sup>                      | \$ 12,405                                  | \$ 3,710           | \$ 16,115 |
|  | Pay Telephone <sup>3</sup>                       | 2  | 284                | 286       |
|  | Local Private Line <sup>4</sup>                  | 16,584                                     | 5,024              | 21,608    |
| Local Service<br>and<br>Payphone Revenues  | VoIP <sup>5</sup>                                | 10,178                                     | 4,139              | 14,317    |
|  | Other Local <sup>6</sup>                         | 772  | 391                | 1,164     |
|  | Federal and State USF Support <sup>7</sup>       | 2,475                                      | 4,009              | 6,484     |
|  | Subscriber Line Charges <sup>8</sup>             | 2,442                                      | 903                | 3,345     |
|  | Access 9   | 1,277                                      | 980                | 2,257     |
|  | <b>Total Local Service and Payphone Revenues</b> | 46,136                                     | 19,440             | 65,576    |
| Mobile Revenues                            | <b>Total Mobile Service Revenues</b> 10          | 29,388                                     | 3,991              | 33,379    |
|  | Operator <sup>11</sup>                           | 100  | 1,363              | 1,464     |
|  | VoIP <sup>12</sup>                               | 1,695                                      | 796                | 2,491     |
| Toll Service Revenues                      | Non-Operator Switched Toll <sup>13</sup>         | 5,555                                      | 3,499              | 9,054     |
| 1011 Service Revenues                      | Long Distance Private Line 14                    | 8,733                                      | 1,966              | 10,698    |
|  | Other Long Distance 15                           | 670  | 1,598              | 2,268     |
|  | <b>Total Toll Service Revenues</b>               | 16,753                                     | 9,222              | 25,975    |
| Total Local, Mobile, and Toll Revenues     |  | 92,277                                     | 32,653             | 124,930   |
| Universal Service Surcharges <sup>16</sup> | 6,554  | 1,504                                      | 8,059              |           |
| Total Telecommunications Revenues 17       |  | 98,831                                     | 34,157             | 132,989   |
| Total Non-Telecommunications Revenue       | 267,806  | 111,703                                    | 379,509            |           |
| Total Reported Revenues                    | \$ 366,637                                       | \$ 145,860                                 | \$ 512,497         |           |

The "Top 10 Affiliated Entities" are those with the greatest telecommunications revenues as defined by the sum of Lines 315a and 420a on Form 499-A. These companies are (in alphabetical order): América Móvil, AT&T Inc., Charter Communications, Comcast Corporation, Cox Communications, Frontier Communications Corporation, Lumen Technologies, Inc., T-Mobile USA, Verizon Communications, and Windstream Holdings, Inc.. The affiliated entity structure is current as of year-end 2020.

The sum of Lines 303.1a, 303.2a, 404.1a, 404.2a, and 404.3a from Form 499-A.

- <sup>3</sup> The sum of Lines 306a and 407a from Form 499-A.
- <sup>4</sup> The sum of Lines 305.1a, 305.2a, and 406a from Form 499-A.
- <sup>5</sup> The sum of Lines 404.4a and 404.5a from Form 499-A.
- <sup>6</sup> The sum of Lines 307a and 408a from Form 499-A.
- <sup>7</sup> Line 308a from Form 499-A.
- <sup>8</sup> Line 405a from Form 499-A. As of 2012, includes Access Recovery Charge (ARC).
- <sup>9</sup> The sum of Lines 304.1a and 304.2a from Form 499-A.
- <sup>10</sup> The sum of Lines 309a, 409a, and 410a from Form 499-A.
- <sup>11</sup> The sum of Lines 310a, 411a, 412a, and 413a from Form 499-A.
- <sup>12</sup> Line 414.2a from Form 499-A.
- <sup>13</sup> The sum of Lines 311a and 414.1a from Form 499-A.
- <sup>14</sup> The sum of Lines 312a and 415a from Form 499-A.
- <sup>15</sup> The sum of Lines 313a, 314a, 416a, and 417a from Form 499-A.
- Amounts are calculated using Line 403a from Form 499-A. The surcharge figure indicates only surcharges that have been explicitly reported as such in the Form 499-A and does not account for implicit surcharge revenues where carriers collect the surcharge through higher prices.
- <sup>17</sup> Subtotal includes surcharge.
- <sup>18</sup> Line 418a from Form 499-A.

Note: Detail may not add to totals due to rounding.

Source: FCC Form 499-A based on filings as of August 23, 2021.

Table 1.4 – Telecommunications Revenue Reported on FCC Form 499-Q: 2019 – 2021 (in Millions of Dollars)

|                                 | Data from FCC Form 499-Q                     |   |         |         |        |  |  |
|---------------------------------|--|---|---------|---------|--------|--|--|
|                                 |  | Retail (End User) Billed                          | 49,108  |         |        |  |  |
| Projected Revenues for 2019     | Interstate and International                 | Retail Net of Uncollectibles                      | 48,742  | (1,694) | 47,048 |  |  |
|                                 |  | Implied Uncollectible Rate                        | 0.7 %   |         |        |  |  |
|                                 | T T  | Wholesale (Carrier's Carrier) Billed              | 39,557  |         |        |  |  |
| Historical Revenues             | Intrastate, Interstate,<br>and International | Retail (End User) Billed                          | 109,012 |         |        |  |  |
| Reported for 2019               | and international                            | Total Revenue                                     | 148,568 |         |        |  |  |
|                                 | Interstate and International                 | Retail (End User) Billed                          | 47,256  |         |        |  |  |
|                                 |  | Retail (End User) Billed <sup>6</sup>             | 44,700  |         |        |  |  |
| Projected Revenues for 2020     | Interstate and International                 | Retail Net of Uncollectibles <sup>7,8</sup>       | 44,363  | (1,581) | 42,781 |  |  |
|                                 |  | Implied Uncollectible Rate                        | 0.8 %   |         |        |  |  |
|                                 | I I  | Wholesale (Carrier's Carrier) Billed <sup>9</sup> | 36,342  |         |        |  |  |
| Historical Revenues             | Intrastate, Interstate,<br>and International | Retail (End User) Billed 10                       | 95,986  |         |        |  |  |
| Reported for 2020               | and international                            | Total Revenue                                     | 132,328 |         |        |  |  |
|                                 | Interstate and International                 | Retail (End User) Billed 11                       | 42,987  |         |        |  |  |
|                                 |  | Retail (End User) Billed <sup>6</sup>             | 42,234  |         |        |  |  |
| Projected Revenues for 2021     | Interstate and International                 | Retail Net of Uncollectibles <sup>7,8</sup>       | 41,943  | (1,460) | 40,482 |  |  |
|                                 |  | Implied Uncollectible Rate                        | 0.7 %   |         |        |  |  |
|                                 | Traditional design of the state of           | Wholesale (Carrier's Carrier) Billed <sup>9</sup> | 18,868  |         |        |  |  |
| <b>Historical Revenues</b>      | Intrastate, Interstate, and International    | Retail (End User) Billed 10                       | 46,385  |         |        |  |  |
| Reported for First Half of 2021 | and international                            | Total Revenue                                     | 65,254  |         |        |  |  |
|                                 | Interstate and International                 | Retail (End User) Billed 11                       | 21,598  |         |        |  |  |

A provider receives the Limited International Revenue Exemption (LIRE) and its international revenues are excluded from the contribution base if the total amount of interstate end-user revenues for the filing entity, consolidated with all affiliates, is less than 12% of the total of interstate and international end-user revenues for the filing entity consolidated with all affiliates. Affiliated filer entities who do not pass the 12% rule, but whose USF obligation exceeds its interstate revenue, may be considered for the LIRE exemption on a case-by-case basis. See 47 C.F.R. § 54.706(c). In addition, filers that provide only international services are exempt regardless of services offered by affiliates.

<sup>&</sup>lt;sup>2</sup> Projected intrastate revenues are not reported on FCC Form 499-Q.

- Prior to 2014, this line was referred to as "Billed to End Users."
- <sup>4</sup> Prior to 2014, this line was referred to as "Collected from End Users."
- <sup>5</sup> Prior to 2014, this line was referred to as "Billed to Resellers."
- <sup>6</sup> Projected revenues billed to end users are calculated using the sum of Lines 119b and 119c from Form 499-Q.
- <sup>7</sup> Projected revenues collected from end users are calculated using the sum of Lines 120b and 120c from Form 499-Q.
- Projected LIRE exempt revenues are calculated using the sum of Lines 120b and 120c in the Form 499Q filings from those filers who are LIRE-exempt.
- <sup>9</sup> Historical revenues billed to wholesaler is calculated using Line 115a from Form 499-Q.
- Historical revenues billed to retail is calculated using Line 116a from Form 499-Q.
- Interstate and international historical revenues billed to end users is calculated using the sum of Lines 116b and 116c from Form 499-Q.

Note: Detail may not add to totals due to rounding.

Source: FCC Form 499-Q as of August 23, 2021.

#### Table 1.5 – USF Contribution Base by Year: 2011 – 2020<sup>1</sup>

(in Millions of Dollars)

|        | Revenues Subject to USF Contribution                              | 2011     | 2012     | 2013     | 2014     | 2015     | 2016     | 2017     | 2018     | 2019     | 2020     |
|--------|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|        | Billed interstate and international retail (end-user)             |          |          |          |          |          |          |          |          |          |          |
|        | revenues (includes Universal Service Surcharge) <sup>2</sup>      | \$70,323 | \$70,122 | \$68,399 | \$66,846 | \$63,930 | \$60,181 | \$55,733 | \$53,098 | \$47,464 | \$43,236 |
| less   | revenues for international-to-international services <sup>3</sup> | 452      | 638      | 589      | 579      | 361      | 174      | 150      | 198      | 215      | 134      |
|        | international revenues of international-only filers               |          |          |          |          |          |          |          |          |          |          |
|        | and international revenues that were excluded                     |          |          |          |          |          |          |          |          |          |          |
| less   | because of the LIRE Exemption <sup>4</sup>                        | 3,118    | 2,934    | 2,994    | 2,828    | 2,790    | 2,084    | 2,007    | 1,623    | 1,652    | 1,388    |
|        | interstate and other international revenues for                   |          |          |          |          |          |          |          |          |          |          |
|        | filers who are de minimis or otherwise exempt                     |          |          |          |          |          |          |          |          |          |          |
| less   | from universal service support requirements                       | 24       | 21       | 23       | 26       | 26       | 26       | 27       | 28       | 27       | 26       |
| less   | uncollectible contribution base revenues <sup>5</sup>             | 785      | 711      | 611      | 530      | 470      | 427      | 355      | 330      | 314      | 267      |
| equals | equals  |          | \$65,816 | \$64,182 | \$62,884 | \$60,282 | \$57,471 | \$53,193 | \$50,919 | \$45,255 | \$41,421 |

This table shows the contribution base for the Universal Service Fund (USF), but the actual amounts used for determining contributions may differ due to the following factors: (1) Adjustments are made by the Administrator to account for additional and corrected filings received; (2) Exempt amounts were based on revenues and the filer type (i.e., principal business activity) information contained in the FCC Form 499-A filings; (3) The Administrator may use carrier type, revenue type, Line 603 exemption certifications, and additional information requested from filers to determine which filers are required to contribute; (4) The Administrator bills delinquent filers based on estimated revenues and may, in some instances, include estimated revenue amounts in contribution base amounts; (5) The universal service contribution factors are set quarterly based on FCC Form 499-Q filings; and (6) FCC Form 499-A data are used for true-up and auditing purposes. As a result of these factors, actual contribution bases have been based on different amounts than those shown.

- <sup>2</sup> Amounts are calculated using the sum of Lines 403 to 417, parts d and e, on Form 499-A
- <sup>3</sup> Amounts are calculated using line 412e on Form 499-A
- <sup>4</sup> A provider receives the Limited International Revenue Exemption (LIRE) and its international revenues are excluded from the contribution base if the total amount of interstate end-user revenues for the filing entity consolidated with all affiliates is less than 12% of the total of interstate and international end-user revenues for the filing entity consolidated with all affiliates. Affiliated filer entities who do not pass the 12% rule, but whose USF obligation exceeds its interstate revenue may request to be considered for the LIRE exemption on a case-by-case basis. See 47 C.F.R. § 54.706(c). In addition, filers that provide only international services are exempt regardless of services offered by affiliates.
- Does not include uncollectible amounts associated with filers who are de minimis or LIRE exempt. Amounts are calculated using the sum of Lines 422, parts d and e of Form 499-A.

Note: Detail may not add to totals due to rounding.

Source: FCC Form 499-Q based on filings as of August 23, 2021.

Table 1.6 – Universal Service Fund Contribution Factor<sup>1</sup>

| Year | Quarter        | Contribution Factor |
|------|----------------|---------------------|
| 2012 | First Quarter  | 17.9                |
|      | Second Quarter | 17.4                |
|      | Third Quarter  | 15.7                |
|      | Fourth Quarter | 17.4                |
| 2013 | First Quarter  | 16.1                |
|      | Second Quarter | 15.5                |
|      | Third Quarter  | 15.1                |
|      | Fourth Quarter | 15.6                |
| 2014 | First Quarter  | 16.4                |
|      | Second Quarter | 16.6                |
|      | Third Quarter  | 15.7                |
|      | Fourth Quarter | 16.1                |
| 2015 | First Quarter  | 16.8                |
|      | Second Quarter | 17.4                |
|      | Third Quarter  | 17.1                |
|      | Fourth Quarter | 16.7                |
| 2016 | First Quarter  | 18.2                |
|      | Second Quarter | 17.9                |
|      | Third Quarter  | 17.9                |
|      | Fourth Quarter | 17.4                |
| 2017 | First Quarter  | 16.7                |
|      | Second Quarter | 17.4                |
|      | Third Quarter  | 17.1                |
|      | Fourth Quarter | 18.8                |
| 2018 | First Quarter  | 19.5                |
|      | Second Quarter | 18.4                |
|      | Third Quarter  | 17.9                |
|      | Fourth Quarter | 20.1                |
| 2019 | First Quarter  | 20.0                |
|      | Second Quarter | 18.8                |
|      | Third Quarter  | 24.4                |
|      | Fourth Quarter | 25.0                |
| 2020 | First Quarter  | 21.2                |
|      | Second Quarter | 19.6                |
|      | Third Quarter  | 26.5                |
|      | Fourth Quarter | 27.1                |
| 2021 | First Quarter  | 31.8                |
|      | Second Quarter | 33.4                |
|      | Third Quarter  | 31.8                |
|      | Fourth Quarter | 29.1                |

<sup>&</sup>lt;sup>1</sup> Carriers contribute based on projected, collected, end-user interstate and international telecommunications revenues.

*Source*: Quarterly Public Notices on universal service contribution factors are in CC Docket 96-45. See http://www.fcc.gov/encyclopedia/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support

Table 1.7 – Billed Interstate and International Retail Communications Revenues by Top 10 Affiliated Entities vs. Other Companies:  $2011 - First Half 2021^1$ 

(in Millions of Dollars)

|                              | Top 10 Affiliated Entities <sup>2</sup> | Other Companies | Total    | Top 10 Share |
|------------------------------|---|-----------------|----------|--------------|
| 2011                         | \$54,206                                | \$15,665        | \$69,871 | 78 %         |
| 2012                         | 53,671                                  | 15,813          | 69,483   | 77           |
| 2013                         | 52,779                                  | 15,031          | 67,810   | 78           |
| 2014                         | 52,739                                  | 13,528          | 66,267   | 80           |
| 2015                         | 50,083                                  | 13,485          | 63,568   | 79           |
| 2016                         | 47,638                                  | 12,369          | 60,008   | 79           |
| 2017                         | 44,897                                  | 10,686          | 55,582   | 81           |
| 2018                         | 42,405                                  | 10,495          | 52,900   | 80           |
| 2019                         | 36,900                                  | 10,349          | 47,249   | 78           |
| 2020                         | 33,382                                  | 9,721           | 43,102   | 77           |
| First Half 2021 <sup>3</sup> | 15,859                                  | 4,489           | 20,348   | 78           |

- Revenues are calculated as the sum of Lines 403d to 417d (interstate end user revenue) and 403e to 417e (international end user revenue) minus Lines 412e from Form 499-A.
- The "Top 10 Affiliated Entities" are those with the greatest telecommunications revenues as defined by the sum of Lines 315a and 420a on Form 499-A. These companies, for 2021, are (in alphabetical order): América Móvil, AT&T Inc., Charter Communications, Comcast Corporation, Cox Communications, Frontier Communications Corporation, Lumen Technologies, Inc., T-Mobile USA, Verizon Communications, and Windstream Holdings, Inc..
- Preliminary revenues are calculated using Line 116b plus Line 116c for each quarter in FCC Form 499-Q. *Note*: Detail may not add to totals due to rounding. *Source*: Data for 2020 are based on FCC Form 499-A filings as of August 23, 2021. Data for 2021 are based on FCC Form 499-Q filings as of August 23, 2021.

Table 1.8 – End User Telecommunications Revenue by State: 2019 (in Millions of Dollars)

|                      | Intrastate | Interstate and<br>International | Total     | % Intrastate | % Interstate and<br>International | % Total  |
|----------------------|------------|---------------------------------|-----------|--------------|-----------------------------------|----------|
| Alabama              | \$796      | \$568                           | \$1,364   | 1.30 %       | 1.20 %                            | 1.25 %   |
| Alaska               | 118        | 113                             | 232       | 0.19         | 0.24                              | 0.21     |
| American Samoa       | 6          | 3                               | 9         | 0.01         | 0.01                              | 0.01     |
| Arizona              | 1,143      | 949                             | 2,092     | 1.87         | 2.00                              | 1.92     |
| Arkansas             | 503        | 382                             | 885       | 0.82         | 0.80                              | 0.81     |
| California           | 7,567      | 5,648                           | 13,215    | 12.35        | 11.90                             | 12.15    |
| Colorado             | 1,074      | 926                             | 2,000     | 1.75         | 1.95                              | 1.84     |
| Connecticut          | 755        | 625                             | 1,380     | 1.23         | 1.32                              | 1.27     |
| Delaware             | 201        | 181                             | 382       | 0.33         | 0.38                              | 0.35     |
| District of Columbia | 345        | 308                             | 652       | 0.56         | 0.65                              | 0.60     |
| Florida              | 3,518      | 2,716                           | 6,235     | 5.75         | 5.72                              | 5.73     |
| Georgia              | 1,877      | 1,334                           | 3,212     | 3.06         | 2.81                              | 2.95     |
| Guam                 | 32         | 23                              | 55        | 0.05         | 0.05                              | 0.05     |
| Hawaii               | 266        | 212                             | 478       | 0.43         | 0.45                              | 0.44     |
| Idaho                | 272        | 237                             | 510       | 0.44         | 0.50                              | 0.47     |
| Illinois             | 2,397      | 1,931                           | 4,328     | 3.91         | 4.07                              | 3.98     |
| Indiana              | 1,093      | 900                             | 1,993     | 1.78         | 1.90                              | 1.83     |
| Iowa                 | 620        | 465                             | 1,086     | 1.01         | 0.98                              | 1.00     |
| Kansas               | 517        | 379                             | 897       | 0.84         | 0.80                              | 0.82     |
| Kentucky             | 785        | 545                             | 1,331     | 1.28         | 1.15                              | 1.22     |
| Louisiana            | 830        | 555                             | 1,385     | 1.35         | 1.17                              | 1.27     |
| Maine                | 267        | 200                             | 467       | 0.43         | 0.42                              | 0.43     |
| Maryland             | 1,258      | 1,122                           | 2,380     | 2.05         | 2.36                              | 2.19     |
| Massachusetts        | 1,589      | 1,216                           | 2,806     | 2.59         | 2.56                              | 2.58     |
| Michigan             | 1,664      | 1,264                           | 2,928     | 2.72         | 2.66                              | 2.69     |
| Minnesota            | 1,163      | 922                             | 2,085     | 1.90         | 1.94                              | 1.92     |
| Mississippi          | 430        | 294                             | 725       | 0.70         | 0.62                              | 0.67     |
| Missouri             | 1,064      | 870                             | 1,934     | 1.74         | 1.83                              | 1.78     |
| Montana              | 197        | 160                             | 357       | 0.32         | 0.34                              | 0.33     |
| Nebraska             | 391        | 291                             | 682       | 0.64         | 0.61                              | 0.63     |
| Nevada               | 518        | 412                             | 931       | 0.85         | 0.87                              | 0.86     |
| New Hampshire        | 276        | 240                             | 516       | 0.45         | 0.51                              | 0.47     |
| New Jersey           | 2,050      | 1,647                           | 3,697     | 3.35         | 3.47                              | 3.40     |
| New Mexico           | 351        | 277                             | 628       | 0.57         | 0.58                              | 0.58     |
| New York             | 4,413      | 3,224                           | 7,637     | 7.20         | 6.79                              | 7.02     |
| North Carolina       | 1,778      | 1,331                           | 3,109     | 2.90         | 2.80                              | 2.86     |
| North Dakota         | 161        | 128                             | 289       | 0.26         | 0.27                              | 0.27     |
| N. Mariana Islands   | 10         | 6                               | 16        | 0.02         | 0.01                              | 0.01     |
| Ohio                 | 2,124      | 1,604                           | 3,727     | 3.46         | 3.38                              | 3.43     |
| Oklahoma             | 621        | 458                             | 1,079     | 1.01         | 0.96                              | 0.99     |
| Oregon               | 727        | 588                             | 1,314     | 1.19         | 1.24                              | 1.21     |
| Pennsylvania         | 2,661      | 2,078                           | 4,738     | 4.34         | 4.38                              | 4.36     |
| Puerto Rico          | 524        | 403                             | 927       | 0.85         | 0.85                              | 0.85     |
| Rhode Island         | 208        | 147                             | 354       | 0.34         | 0.31                              | 0.33     |
| South Carolina       | 865        | 632                             | 1,497     | 1.41         | 1.33                              | 1.38     |
| South Dakota         | 192        | 129                             | 321       | 0.31         | 0.27                              | 0.29     |
| Tennessee            | 1,192      | 852                             | 2,044     | 1.94         | 1.80                              | 1.88     |
| Texas                | 4,682      | 3,600                           | 8,282     | 7.64         | 7.58                              | 7.62     |
| Utah                 | 485        | 413                             | 897       | 0.79         | 0.87                              | 0.83     |
| Vermont              | 148        | 127                             | 275       | 0.24         | 0.27                              | 0.25     |
| Virgin Islands       | 20         | 20                              | 41        | 0.03         | 0.04                              | 0.04     |
| Virginia             | 1,701      | 1,427                           | 3,128     | 2.77         | 3.01                              | 2.88     |
| Washington           | 1,349      | 1,099                           | 2,448     | 2.20         | 2.31                              | 2.25     |
| West Virginia        | 350        | 314                             | 663       | 0.57         | 0.66                              | 0.61     |
| Wisconsin            | 1,043      | 871                             | 1,914     | 1.70         | 1.84                              | 1.76     |
| Wyoming              | 109        | 96                              | 205       | 0.18         | 0.20                              | 0.19     |
| Total                | \$61,296   | \$47,464                        | \$108,760 | 100.00 %     | 100.00 %                          | 100.00 % |

Note: Figures may not add to totals due to rounding.

*Source*: FCC/OEA (Office of Economics and Analytics) staff estimates. For methodology end-user revenue per state, see Supplemental Table S.1.4 Estimating End User Revenues Technical Appendix at http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports

Table 1.9 – Universal Service Support Mechanisms by State: 2020 (Annual Payments and Contributions in Thousands of Dollars)

| }                        | m. 1                              |                       | Payments from USI   | to Providers      | Total       |                    | Estimated Con | tributions <sup>2</sup> | Estimated Net Dolla |
|--------------------------|-----------------------------------|-----------------------|---------------------|-------------------|-------------|--------------------|---------------|-------------------------|---------------------|
|                          | High-Cost<br>Support <sup>1</sup> | Low-Income<br>Support | Schools & Libraries | Rural Health Care | Amount      | otal<br>% of Total | Amount        | % of Total              | Flow <sup>3</sup>   |
| Alabama                  | \$92,020                          | \$8,562               | \$42,931            | \$3,056           | \$146,569   | % of Total         | \$101,445     | 1.20 %                  | \$45,124            |
| Alaska                   | 167,797                           | 7,258                 | 72,886              | 36,707            | 284,648     | 3.44               | 20,189        | 0.24                    | 264,459             |
| Anaska<br>American Samoa | 3,287                             | 7,238<br>97           | 457                 | 0                 | 3,842       | 0.05               | 623           | 0.24                    | 3,219               |
| Arizona                  |                                   | 29,699                | 58,078              |                   |             | 2.20               |               | 2.00                    | · ·                 |
|                          | 81,063                            |                       |                     | 13,115            | 181,955     | 1.92               | 169,465       |                         | 12,491<br>90,432    |
| Arkansas                 | 119,522                           | 8,085                 | 20,522              | 10,507            | 158,635     |                    | 68,203        | 0.80                    | ,                   |
| California               | 158,665                           | 162,182               | 229,430             | 14,955            | 565,232     | 6.83               | 1,008,798     | 11.90                   | -443,566            |
| Colorado                 | 63,871                            | 6,108                 | 22,123              | 16,853            | 108,954     | 1.32               | 165,336       | 1.95                    | -56,381             |
| Connecticut              | 435                               | 7,479                 | 15,030              | 511               | 23,455      | 0.28               | 111,609       | 1.32                    | -88,155             |
| Delaware                 | 287                               | 1,402                 | 3,384               | 0                 | 5,073       | 0.06               | 32,352        | 0.38                    | -27,280             |
| District of Columbia     | 0                                 | 1,829                 | 8,968               | 0                 | 10,797      | 0.13               | 54,949        | 0.65                    | -44,152             |
| Florida                  | 41,420                            | 39,875                | 85,951              | 4,795             | 172,042     | 2.08               | 485,145       | 5.72                    | -313,102            |
| Georgia                  | 120,936                           | 27,637                | 59,797              | 9,033             | 217,403     | 2.63               | 238,291       | 2.81                    | -20,888             |
| Guam                     | 12,872                            | 51                    | 397                 | 124               | 13,444      | 0.16               | 4,189         | 0.05                    | 9,255               |
| Hawaii                   | 6,240                             | 730                   | 6,586               | 27                | 13,583      | 0.16               | 37,822        | 0.45                    | -24,240             |
| Idaho                    | 56,161                            | 1,037                 | 15,293              | 4,978             | 77,468      | 0.94               | 42,374        | 0.50                    | 35,094              |
| Illinois                 | 133,555                           | 21,350                | 70,776              | 6,208             | 231,889     | 2.80               | 344,902       | 4.07                    | -113,013            |
| Indiana                  | 126,282                           | 13,386                | 42,160              | 9,756             | 191,584     | 2.32               | 160,747       | 1.90                    | 30,837              |
| Iowa                     | 226,177                           | 4,965                 | 19,680              | 3,940             | 254,762     | 3.08               | 83,135        | 0.98                    | 171,627             |
| Kansas                   | 176,443                           | 3,916                 | 25,235              | 3,457             | 209,050     | 2.53               | 67,744        | 0.80                    | 141,305             |
| Kentucky                 | 157,885                           | 13,224                | 39,094              | 5,322             | 215,526     | 2.60               | 97,373        | 1.15                    | 118,152             |
| Louisiana                | 80,517                            | 19,439                | 31,675              | 3,504             | 135,135     | 1.63               | 99,149        | 1.17                    | 35,986              |
| Maine                    | 35,184                            | 1,940                 | 6,546               | 5,481             | 49,151      | 0.59               | 35,800        | 0.42                    | 13,350              |
| Maryland                 | 3,693                             | 14,458                | 23,649              | 2,666             | 44,465      | 0.54               | 200,396       | 2.36                    | -155,931            |
| Massachusetts            | 2,852                             | 11,188                | 25,601              | 1,585             | 41,225      | 0.50               | 217,266       | 2.56                    | -176,041            |
| Michigan                 | 120,603                           | 25,230                | 38,555              | 9,862             | 194,251     | 2.35               | 225,843       | 2.66                    | -31,592             |
| Minnesota                | 248,057                           | 7,746                 | 23,339              | 3,170             | 282,312     | 3.41               | 164,755       | 1.94                    | 117,557             |
| Mississippi              | 164,497                           | 6,642                 | 15,823              | 7,855             | 194,817     | 2.35               | 52,579        | 0.62                    | 142,238             |
| Missouri                 | 211,986                           | 9,158                 | 42,394              | 10,270            | 273,808     | 3.31               | 155,337       | 1.83                    | 118,471             |
| Montana                  | 138,789                           | 612                   | 4,448               | 863               | 144,712     | 1.75               | 28,542        | 0.34                    | 116,170             |
| Nebraska                 | 122,807                           | 494                   | 10,225              | 2,519             | 136,046     | 1.64               | 52,019        | 0.61                    | 84,026              |
| Nevada                   | 21,791                            | 7,250                 | 9,783               | 419               | 39,242      | 0.47               | 73,672        | 0.87                    | -34,430             |
| New Hampshire            | 11,547                            | 630                   | 2,975               | 129               | 15,282      | 0.18               | 42,955        | 0.51                    | -27,673             |
| New Jersey               | 1,151                             | 14,155                | 45,036              | 0                 | 60,342      | 0.73               | 294,138       | 3.47                    | -233,795            |
| New Mexico               | 89,649                            | 16,475                | 37,678              | 4,785             | 148,587     | 1.80               | 49,468        | 0.58                    | 99,119              |
| New York                 | 56,989                            | 52,296                | 135,672             | 5,607             | 250,563     | 3.03               | 575,828       | 6.79                    | -325,265            |
| North Carolina           | 77,982                            | 14,187                | 72,433              | 10,027            | 174,628     | 2.11               | 237,729       | 2.80                    | -63,100             |
| North Dakota             | 180,858                           | 1,003                 | 2,050               | 1,054             | 184,965     | 2.24               | 22,818        | 0.27                    | 162,147             |
| N. Mariana Islands       | 3,209                             | 183                   | 252                 | 0                 | 3,643       | 0.04               | 1,005         | 0.01                    | 2,638               |
| Ohio                     | 84,766                            | 34,848                | 62,536              | 6,674             | 188,824     | 2.28               | 286,402       | 3.38                    | -97,578             |
| Oklahoma                 | 161,053                           | 55,651                | 41,801              | 5,558             | 264,063     | 3.19               | 81,774        | 0.96                    | 182,289             |
| Oregon                   | 87,181                            | 5,086                 | 15,752              | 2,927             | 110,946     | 1.34               | 104,948       | 1.24                    | 5,998               |
| Pennsylvania             | 58,591                            | 32,579                | 53,541              | 3,174             | 147,884     | 1.79               | 371,062       | 4.38                    | -223,178            |
| Puerto Rico              | 119,835                           | 50,255                | 50,032              | 0                 | 220,123     | 2.66               | 72,055        | 0.85                    | 148,067             |
| Rhode Island             | 69                                | 2,152                 | 5,069               | 0                 | 7,290       | 0.09               | 26,241        | 0.31                    | -18,951             |
|                          |                                   |                       |                     |                   |             |                    |               |                         |                     |
| South Carolina           | 122,152                           | 11,348                | 27,497              | 5,093             | 166,091     | 2.01               | 112,818       | 0.27                    | 53,272              |
| South Dakota             | 126,113                           | 1,330                 | 4,813               | 3,798             | 136,054     | 1.64               | 22,995        |                         | 113,059             |
| Tennessee                | 102,202                           | 11,919                | 66,294              | 3,674             | 184,089     | 2.22               | 152,235       | 1.80                    | 31,854              |
| Texas                    | 298,424                           | 38,689                | 225,886             | 21,793            | 584,791     | 7.07               | 642,994       | 7.58                    | -58,203             |
| Utah                     | 43,798                            | 2,349                 | 16,479              | 1,636             | 64,263      | 0.78               | 73,708        | 0.87                    | -9,445              |
| Vermont                  | 22,873                            | 914                   | 2,779               | 283               | 26,849      | 0.32               | 22,654        | 0.27                    | 4,195               |
| Virgin Islands           | 17,338                            | 108                   | 214                 | 24                | 17,684      | 0.21               | 3,640         | 0.04                    | 14,044              |
| Virginia                 | 79,821                            | 10,679                | 36,413              | 6,867             | 133,780     | 1.62               | 254,940       | 3.01                    | -121,161            |
| Washington               | 90,817                            | 14,123                | 32,872              | 9,650             | 147,461     | 1.78               | 196,248       | 2.31                    | -48,786             |
| West Virginia            | 59,451                            | 6,305                 | 15,950              | 4,557             | 86,263      | 1.04               | 56,009        | 0.66                    | 30,253              |
| Wisconsin                | 225,539                           | 13,296                | 31,909              | 8,807             | 279,551     | 3.38               | 155,623       | 1.84                    | 123,928             |
| Wyoming                  | 45,461                            | 72                    | 3,025               | 275               | 48,832      | 0.59               | 17,142        | 0.20                    | 31,691              |
| Total                    | \$5,062,559                       | \$853,660             | \$2,059,772         | \$297,929         | \$8,273,920 | 100.00 %           | \$8,477,479   | 100.00 %                | -\$203,558          |

- High-cost support excludes penalties withheld from Mobility Fund and includes recovered forfeited funds for Connect America Fund (CAF)-Phase I Support.
- Contributions include administrative cost of approximately \$204 million, as shown in Universal Service Administration Company (USAC) Annual Report. Allocation of contributions among states is an FCC staff estimate. See the Technical Appendix at http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports.
- Net dollar flow is positive when payments from USF (Universal Service Fund) to carriers exceed contributions to USF. Total is negative because of administrative expenses.

  Note: Figures may not add due to rounding.

Table 1.10 – Universal Service Disbursements 2001 – 2020 (in Millions of Dollars)

| Year | High-Cost<br>Support | Low-Income<br>Support | Rural Health<br>Care | Schools and<br>Libraries | Total   |
|------|----------------------|-----------------------|----------------------|--------------------------|---------|
| 2001 | \$2,602              | \$584                 | \$8                  | \$1,464                  | \$4,659 |
| 2002 | 2,978                | 673                   | 16                   | 1,683                    | 5,350   |
| 2003 | 3,273                | 713                   | 3                    | 1,644                    | 5,633   |
| 2004 | 3,488                | 759                   | 1                    | 1,076                    | 5,324   |
| 2005 | 3,824                | 809                   | 26                   | 1,862                    | 6,520   |
| 2006 | 4,096                | 820                   | 41                   | 1,669                    | 6,626   |
| 2007 | 4,287                | 823                   | 37                   | 1,808                    | 6,955   |
| 2008 | 4,478                | 819                   | 49                   | 1,760                    | 7,106   |
| 2009 | 4,292                | 1,025                 | 72                   | 1,878                    | 7,268   |
| 2010 | 4,268                | 1,316                 | 110                  | 2,282                    | 7,976   |
| 2011 | 4,031                | 1,751                 | 141                  | 2,233                    | 8,156   |
| 2012 | 4,147                | 2,189                 | 155                  | 2,218                    | 8,710   |
| 2013 | 4,165                | 1,798                 | 159                  | 2,204                    | 8,326   |
| 2014 | 3,733                | 1,660                 | 193                  | 2,269                    | 7,855   |
| 2015 | 4,499                | 1,514                 | 279                  | 2,080                    | 8,372   |
| 2016 | 4,491                | 1,537                 | 298                  | 2,387                    | 8,712   |
| 2017 | 4,683                | 1,287                 | 262                  | 2,650                    | 8,882   |
| 2018 | 4,836                | 1,162                 | 299                  | 2,185                    | 8,482   |
| 2019 | 5,147                | 982                   | 252                  | 1,969                    | 8,349   |
| 2020 | 5,063                | 854                   | 298                  | 2,060                    | 8,274   |

*Notes*: Figures may not add due to rounding. The figures used in this table are for the calendar year and include disbursements that were committed over several years but paid out in the respective calendar year. In Sections 4 and 5, figures for the Schools and Libraries program and the Rural Health Care program are reported based on fiscal year rather than calendar year. High-cost support excludes penalties for Mobility Fund and includes recovered forfeited funds for Connect America Fund (CAF)-Phase I Support.

Source: Universal Service Administration Company (USAC).

Table 1.11 – Universal Service Program Requirements and Contribution Factors for 2021 (in Millions of Dollars)

|   | First Quarter | Second Quarter | Third Quarter | Fourth Quarter | Full Year  |
|---|---------------|----------------|---------------|----------------|------------|
| High Cost   |               |                |               |                |            |
| High Cost Loop Support                                    | \$95.40       | \$95.68        | \$92.71       | \$91.09        | \$374.88   |
| Broadband Loop Support                                    | \$195.89      | \$195.86       | \$196.30      | \$241.41       | \$829.46   |
| CAF - Phase I Frozen Support 1                            | \$19.25       | \$11.65        | \$11.70       | \$10.95        | \$53.55    |
| Frozen Competitive ETC Support <sup>2</sup>               | \$96.59       | \$96.04        | \$94.87       | \$93.98        | \$381.48   |
| CAF - Intercarrier Compensation Support                   | \$99.00       | \$98.99        | \$99.18       | \$99.01        | \$396.18   |
| CAF - Phase II Auction                                    | \$38.70       | \$38.70        | \$38.70       | \$38.70        | \$154.80   |
| CAF - Phase II Cost Model                                 | \$379.42      | \$379.42       | \$379.42      | \$379.42       | \$1,517.68 |
| Alternative Connect America Cost Model I & II             | \$234.99      | \$235.37       | \$235.37      | \$235.37       | \$941.10   |
| Alaska Plan Support                                       | \$32.08       | \$32.08        | \$32.08       | \$32.08        | \$128.32   |
| Uniendo a Puerto Rico/Connect USVI                        | \$24.19       | \$26.86        | \$26.86       | \$26.86        | \$104.77   |
| Rural Digital Opportunity Fund                            | \$0.00        | \$218.30       | \$100.60      | \$100.60       | \$419.50   |
| Prior Period Adjustment                                   | \$127.18      | -\$32.77       | -\$35.69      | -\$229.56      | -\$170.84  |
| USAC Administrative Costs                                 | \$16.50       | \$17.34        | \$17.22       | \$17.22        | \$68.28    |
| Program Total   | \$1,359.19    | \$1,413.52     | \$1,289.32    | \$1,137.13     | \$5,199.16 |
| Low Income  |               |                |               |                |            |
| Lifeline Assistance                                       | \$215.30      | \$231.98       | \$242.42      | \$237.19       | \$926.89   |
| Link-Up   | \$0.03        | \$0.04         | \$0.04        | \$0.03         | \$0.14     |
| Prior Period Adjustment                                   | \$30.62       | \$6.43         | \$27.37       | -\$22.65       | \$41.77    |
| USAC Administrative Costs                                 | \$16.37       | \$16.37        | \$16.43       | \$16.36        | \$65.53    |
| Program Total   | \$262.32      | \$254.82       | \$286.26      | \$230.93       | \$1,034.33 |
| Rural Health  |               |                |               |                |            |
| Rural Health Care Support                                 | \$144.94      | \$144.66       | \$147.00      | \$146.66       | \$583.26   |
| Prior Period Adjustment                                   | \$15.69       | -\$1.83        | -\$3.62       | \$0.11         | \$10.35    |
| USAC Administrative Costs                                 | \$6.25        | \$6.53         | \$6.01        | \$6.35         | \$25.14    |
| Program Total   | \$166.88      | \$149.36       | \$149.39      | \$153.12       | \$618.75   |
| Connected Care Pilot Program                              |               |                |               |                |            |
| Connected Care Pilot Program <sup>5</sup>                 | \$8.33        | \$8.33         | \$8.33        | \$8.33         | \$33.32    |
| Prior Period Adjustment                                   | \$0.00        | -\$0.17        | -\$0.03       | -\$0.09        | -\$0.29    |
| USAC Administratice Costs                                 | \$0.00        | \$0.60         | \$0.29        | \$0.31         | \$1.20     |
| Program Total   | \$8.33        | \$8.76         | \$8.59        | \$8.55         | \$34.23    |
| Schools & Libraries                                       |               |                |               |                |            |
| Schools and Libraries Support                             | \$534.10      | \$626.10       | \$573.39      | \$573.39       | \$2,306.98 |
| Prior Period Adjustment                                   | \$57.38       | -\$11.23       | -\$13.43      | \$0.45         | \$33.17    |
| USAC Administrative Costs                                 | \$19.79       | \$19.74        | \$19.88       | \$20.30        | \$79.71    |
| Program Total   | \$611.27      | \$634.61       | \$579.84      | \$594.14       | \$2,419.86 |
| Grand Total   | \$2,407.99    | \$2,461.07     | \$2,313.40    | \$2,123.87     | \$9,306.33 |
| Applicable interstate and international end-user revenues |               |                |               |                |            |
| Reported contribution base revenues                       | \$10,068.71   | \$9,905.67     | \$9,665.94    | \$9,517.30     |            |
| Circulatory Adjustment                                    | φ10,000.71    | Ψ2,203.01      | ψ2,003.24     | Ψ,,511.50      |            |
| Amount carriers will contribute to USF in this quarter    | -\$2,407.99   | -\$2,461.07    | -\$2,313.40   | -\$2,123.87    |            |
| Subtotal  | \$7,660.72    | \$7,444.60     | \$7,352.54    | \$7,393.43     |            |
| Adjustment factor for uncollectibles                      | 1.0%          | 1.0%           | 1.0%          | 1.0%           |            |
| Adjusted contribution base                                | \$7,584.11    | \$7,370.15     | \$7,279.01    | \$7,319.50     |            |
| Contribution factor                                       | 31.8%         | 33.4%          | 31.8%         | 29.1%          |            |

- In the *USF/ICC Transformation Order*, the Commission converted support received by price cap carriers and their rate-of-return affiliates, including IAS, HCMS, ICLS, LSS, and HCLS, to CAF Phase I Frozen Support. *USF/ICC Transformation Order*, paras. 128-157.
- In the *USF/ICC Transformation Order*, the Commission froze support received by competitive ETCs, including IAS, HCMS, ICLS, LSS, and HCLS at 2011 levels, effective January 1, 2012, and began phasing the frozen support down effective July 1, 2012. *USF/ICC Transformation Order*, paras. 498-532.
- "To secure the funds for the Pilot Program, we direct USAC to separately collect funds for the Pilot Program each quarter beginning with the demand filing for the fourth quarter of 2020," *Promoting Telehealth for Low-Income Consumers, COVID-19 Telehealth Program, WC Docket Nos. 18-213 and 20-89, Report and Order, FCC 20-44, para. 42 (2020).*

Table 1.12 - Number of Telecommunications Service Providers by Size of Business (As of December 31, 2020)

|                                     | Number of FCC Form        | Filers that in Con                    | nbination with Affiliates Have         |
|-------------------------------------|---------------------------|---------------------------------------|--|
| Type of Provider                    | 499-A Filers <sup>1</sup> | 1,500 or Fewer Employees <sup>2</sup> | More than 1,500 Employees <sup>2</sup> |
| Incumbent LEC (ILEC)                | 1,227                     | 929                                   | 298                                    |
| CAP / CLEC                          | 743                       | 653                                   | 90                                     |
| Cable / Coax CLEC                   | 110                       | 104                                   | 6                                      |
| Interconnected VoIP                 | 2,336                     | 2,300                                 | 36                                     |
| Non-Interconnected VoIP             | 233                       | 231                                   | 2                                      |
| Shared-Tenant Service Provider      | 28                        | 28                                    | 0                                      |
| Audio Bridge Service Provider       | 98                        | 97                                    | 1                                      |
| Local Reseller                      | 293                       | 289                                   | 4                                      |
| Other Local                         | 115                       | 106                                   | 9                                      |
| Total Local Competitors             | 3,956                     | 3,808                                 | 148                                    |
| Total Fixed Local Service Providers | 5,183                     | 4,737                                 | 446                                    |
| Payphone Service Provider           | 58                        | 57                                    | 1                                      |
| Private Service Provider            | 262                       | 243                                   | 19                                     |
| Cellular / PCS / SMR                | 288                       | 214                                   | 74                                     |
| Paging & Messaging                  | 90                        | 90                                    | 0                                      |
| SMR (dispatch)                      | 119                       | 119                                   | 0                                      |
| Wireless Data                       | 269                       | 264                                   | 5                                      |
| Other Mobile                        | 31                        | 28                                    | 3                                      |
| Total Wireless Service Providers    | 797                       | 715                                   | 82                                     |
| Interexchange Carrier               | 151                       | 131                                   | 20                                     |
| Operator Service Provider           | 32                        | 32                                    | 0                                      |
| Prepaid Card                        | 79                        | 78                                    | 1                                      |
| Satellite <sup>3</sup>              | 71                        | 48                                    | 23                                     |
| Toll Reseller                       | 518                       | 495                                   | 23                                     |
| Other Toll                          | 115                       | 113                                   | 2                                      |
| Total Toll Service Providers        | 966                       | 897                                   | 69                                     |
| All Filers                          | 7,266                     | 6,649                                 | 617                                    |

| Holding Company Analysis            |       |       |     |
|-------------------------------------|-------|-------|-----|
| Filers without Affiliates:          |       |       |     |
| Holding Company Level               | 5,065 | 5,043 | 22  |
| Filer Level                         | 5,065 | 5,043 | 22  |
| Filers with Affiliates <sup>4</sup> |       |       |     |
| Holding Company Level               | 589   | 554   | 35  |
| Filer Level                         | 2,201 | 1,606 | 595 |
| Total, Holding Company level        | 5,654 | 5,597 | 57  |
| Total, Filer Level                  | 7,266 | 6,649 | 617 |

Note: Estimates are based on gross revenue data filed on the 2020 FCC Form 499-A worksheets and public employment data from FCC Form 395 and Securities and Exchange Commission filings. Filers were considered affiliated based on information from their FCC Form 499-A filings. These estimates do not reflect affiliates that do not file the FCC Form 499-A, such as firms that are not in the telecommunications business or firms that operate solely outside the United States.

- While FCC Form 499-A filings are not publicly available, filer registration information is searchable only at https://apps.fcc.gov/cgb/form499/499a.cfm.
  - Employee counts are estimated at the holding company level, yet presented at the filer level. If our analysis indicates that, at the holding company level, a group of filers together employs more than 1,500 people, then
- each of the individual filer that comprise the holding company are entered in the column labeled as such. Therefore, our estimates do not imply that each or any of the individual filers alone employs more than 1,500 persons.
- 3 Satellite holding companies are defined as large if they have total revenue more than \$35 million, in accordance with the Small Business Association guidelines.
- 4. In some cases, affiliated companies may file a single FCC Form 499A for all operations. Such consolidated filings are included in this category.

Source: FCC Form 499-A filings and IAD staff estimates.



#### **Section 2 – Lifeline (Low Income)**

#### Overview - Lifeline and Link Up Programs for Low-Income Consumers

Since 1985, the Universal Service Lifeline program has provided a discount on phone service for qualifying low-income consumers to ensure that all Americans have the opportunities and security that phone service brings, including being able to connect to jobs, family and emergency services. Recently, the Commission has made ensuring the availability of broadband service for low-income Americans a goal of the Lifeline program. In 2016, the Commission adopted an order to comprehensively reform the Lifeline program. Among other things, the Commission began providing Lifeline support for qualifying broadband service in the Lifeline program, set out minimum service standards for Lifeline-supported services, and directed USAC to establish a National Eligibility Verifier to make independent subscriber eligibility determinations. As of December 2020, the National Verifier has fully launched in all states and territories.

The Lifeline program is available to eligible low-income consumers in every state, territory, commonwealth, and on Tribal lands. The Link Up program offsets the cost-of-service activation to qualifying low-income households. Since 2013, Link Up has been available only on Tribal lands. Consumers with proper proof of eligibility may be qualified to enroll. To participate in the Lifeline or Link Up program, consumers must have an income that is at or below 135% of the Federal Poverty Guidelines or participate in a qualifying assistance program. The Lifeline and Link Up programs are administered by the Universal Service Administrative Company (USAC).

Additional information about the Lifeline program can be found on the Commission's website at <a href="http://www.fcc.gov/lifeline">http://www.fcc.gov/lifeline</a> and on USAC's website at <a href="https://www.usac.org/lifeline/">https://www.usac.org/lifeline/</a>. Please note that the information provided in this report is based upon the program rules through November 2021.

Table 2.1 - Lifeline Subscribers and Link Up Beneficiaries (in Thousands)

|             |            | Lifeline |        |            | Link Up |       |
|-------------|------------|----------|--------|------------|---------|-------|
| Year        | Non-Tribal | Tribal   | Total  | Non-Tribal | Tribal  | Total |
| 1987        |            |          | 1,063  |            |         | 8     |
| 1988        |            |          | 1,829  |            |         | 106   |
| 1989        |            |          | 2,115  |            |         | 207   |
| 1990        |            |          | 2,467  |            |         | 513   |
| 1991        |            |          | 2,984  |            |         | 640   |
| 1992        |            |          | 3,440  |            |         | 743   |
| 1993        |            |          | 3,972  |            |         | 737   |
| 1994        |            |          | 4,423  |            |         | 838   |
| 1995        |            |          | 4,914  |            |         | 824   |
| 1996        |            |          | 5,233  |            |         | 808   |
| $1997^{-1}$ |            |          | 5,111  |            |         |       |
| 1998        | 5,376      | 0        | 5,376  | 2,195      | 0       | 2,195 |
| 1999        | 5,638      | 0        | 5,638  | 1,835      | 0       | 1,835 |
| 2000        | 5,856      | 4        | 5,861  | 1,690      | 2       | 1,692 |
| 2001        | 6,088      | 53       | 6,140  | 1,670      | 23      | 1,694 |
| 2002        | 6,393      | 111      | 6,504  | 1,657      | 30      | 1,687 |
| 2003        | 6,352      | 146      | 6,498  | 1,662      | 23      | 1,685 |
| 2004        | 6,612      | 176      | 6,788  | 1,670      | 42      | 1,712 |
| 2005        | 6,829      | 234      | 7,063  | 1,672      | 90      | 1,762 |
| 2006        | 6,634      | 287      | 6,921  | 1,553      | 101     | 1,654 |
| 2007        | 6,615      | 328      | 6,943  | 1,382      | 112     | 1,494 |
| 2008        | 6,382      | 350      | 6,732  | 1,510      | 118     | 1,627 |
| 2009        | 7,661      | 371      | 8,032  | 1,751      | 111     | 1,862 |
| 2010        | 9,883      | 382      | 10,265 | 2,509      | 126     | 2,635 |
| 2011        | 13,301     | 463      | 13,764 | 4,014      | 285     | 4,300 |
| 2012        | 16,405     | 761      | 17,166 | 1,228      | 180     | 1,408 |
| 2013        | 13,833     | 650      | 14,483 | 0          | 17      | 17    |
| 2014        | 12,943     | 502      | 13,445 | 0          | 29      | 29    |
| 2015        | 12,115     | 418      | 12,533 | 0          | 20      | 20    |
| 2016        | 12,424     | 360      | 12,783 | 0          | 21      | 21    |
| 2017        | 10,461     | 293      | 10,754 | 0          | 10      | 10    |
| 2018        | 9,342      | 258      | 9,600  | 0          | 12      | 12    |
| 2019        | 7,833      | 229      | 8,061  | 0          | 11      | 11    |
| 2020        | 7,148      | 243      | 7,391  | 0          | 7       | 7     |

Subscriber data were not collected in 1997. Lifeline subscribership data were estimated by Universal Service Administrative Company (USAC). Link Up data were not estimated.

*Notes:* The Lifeline subscribers and Link Up beneficiaries represent USAC data for the time period January through December, including true-ups reported through August 2021. Data for 2014-2019 were revised because carriers can revise their filings. When carriers revise their line counts up, they receive more support and when carriers revise their line counts down, they receive less support.

Table 2.2 – Low Income Claims (in Thousands of Dollars)

|        |           |                                   | Lifeline         |                   |           |            | Link Up |         | Total     |
|--------|-----------|-----------------------------------|------------------|-------------------|-----------|------------|---------|---------|-----------|
| Year   | General   | Additional<br>Tribal <sup>2</sup> | TLS <sup>3</sup> | PICC <sup>4</sup> | Total     | Non-Tribal | Tribal  | Total   |           |
| 1988   | \$31,952  | \$0                               | \$0              | \$0               | \$31,952  | \$1,991    | \$0     | \$1,991 | \$33,943  |
| 1989   | 50,878    | 0                                 | 0                | 0                 | 50,878    | 4,480      | 0       | 4,480   | 55,358    |
| 1990   | 62,464    | 0                                 | 0                | 0                 | 62,464    | 11,351     | 0       | 11,351  | 73,815    |
| 1991   | 79,104    | 0                                 | 0                | 0                 | 79,104    | 13,705     | 0       | 13,705  | 92,809    |
| 1992   | 93,766    | 0                                 | 0                | 0                 | 93,766    | 15,342     | 0       | 15,342  | 109,108   |
| 1993   | 109,083   | 0                                 | 0                | 0                 | 109,083   | 17,019     | 0       | 17,019  | 126,102   |
| 1994   | 123,284   | 0                                 | 0                | 0                 | 123,284   | 18,573     | 0       | 18,573  | 141,857   |
| 1995   | 137,277   | 0                                 | 0                | 0                 | 137,277   | 18,392     | 0       | 18,392  | 155,670   |
| 1996   | 148,186   | 0                                 | 0                | 0                 | 148,186   | 18,247     | 0       | 18,247  | 166,433   |
| 1997   | 147,579   | 0                                 | 0                | 0                 | 147,579   | 13,711     | 0       | 13,711  | 161,290   |
| 1998 1 | 416,504   | 0                                 | 2,700            | 2,802             | 422,006   | 42,461     | 0       | 42,461  | 464,467   |
| 1999   | 438,578   | 0                                 | 3,134            | 4,450             | 446,162   | 33,988     | 0       | 33,988  | 480,150   |
| 2000   | 482,052   | 522                               | 2,846            | 3,168             | 488,588   | 30,411     | 30      | 30,441  | 519,029   |
| 2001   | 548,419   | 6,960                             | 3,195            | 0                 | 558,574   | 30,314     | 475     | 30,788  | 589,362   |
| 2002   | 623,350   | 17,955                            | 3,779            | 0                 | 645,083   | 30,323     | 700     | 31,022  | 676,106   |
| 2003   | 657,095   | 24,167                            | 4,425            | 0                 | 685,687   | 30,170     | 515     | 30,686  | 716,373   |
| 2004   | 695,188   | 30,502                            | 5,111            | 0                 | 730,800   | 30,898     | 1,230   | 32,129  | 762,929   |
| 2005   | 716,133   | 45,124                            | 6,215            | 0                 | 767,472   | 31,715     | 2,788   | 34,503  | 801,975   |
| 2006   | 703,958   | 61,524                            | 8,885            | 0                 | 774,367   | 29,832     | 2,869   | 32,701  | 807,068   |
| 2007   | 710,180   | 73,145                            | 8,514            | 0                 | 791,839   | 27,816     | 3,575   | 31,391  | 823,230   |
| 2008   | 695,015   | 80,914                            | 8,634            | 0                 | 784,563   | 30,682     | 6,578   | 37,260  | 821,823   |
| 2009   | 867,541   | 88,061                            | 8,959            | 0                 | 964,561   | 40,807     | 7,485   | 48,291  | 1,012,852 |
| 2010   | 1,125,599 | 92,877                            | 22,197           | 0                 | 1,240,674 | 67,268     | 9,798   | 77,066  | 1,317,740 |
| 2011   | 1,521,279 | 118,119                           | 10,814           | 0                 | 1,650,212 | 108,449    | 21,528  | 129,977 | 1,780,189 |
| 2012   | 1,919,834 | 210,389                           | 6,646            | 0                 | 2,136,870 | 34,770     | 11,940  | 46,710  | 2,183,580 |
| 2013   | 1,607,106 | 179,885                           | 2,690            | 0                 | 1,789,681 | 0          | 567     | 567     | 1,790,248 |
| 2014   | 1,491,402 | 137,330                           | 0                | 0                 | 1,628,731 | 0          | 640     | 640     | 1,629,372 |
| 2015   | 1,390,540 | 118,933                           | 0                | 0                 | 1,509,472 | 0          | 447     | 447     | 1,509,919 |
| 2016   | 1,417,006 | 103,308                           | 0                | 0                 | 1,520,315 | 0          | 486     | 486     | 1,520,801 |
| 2017   | 1,192,537 | 84,192                            | 0                | 0                 | 1,276,729 | 0          | 238     | 238     | 1,276,967 |
| 2018   | 1,064,240 | 74,459                            | 0                | 0                 | 1,138,700 | 0          | 256     | 256     | 1,138,956 |
| 2019   | 892,712   | 66,625                            | 0                | 0                 | 959,337   | 0          | 224     | 224     | 959,562   |
| 2020   | 799,337   | 71,675                            | 0                | 0                 | 871,012   | 0          | 161     | 161     | 871,173   |

Effective in 1998, the federal Lifeline support mechanism was expanded so that a basic level of assistance would be provided in all states. Further, the basic level of federal support was increased in 1998.

Notes: Data for 2014-2019 were updated to account for true-ups.

Tribal Lifeline subscribers also receive General support which is currently \$9.25 per subscriber for qualifying broadband service or \$5.25 per subscriber for qualifying voice service. This amount is not included in Additional Tribal support.

TLS is an abbreviation for toll limitation service.

<sup>&</sup>lt;sup>4</sup> Carriers no longer charge a residential Presubscribed Interexchange Carrier Charge (PICC) as of July 1, 2000.

Table 2.3 – Low Income Claims by State: 2020

(in Thousands of Dollars)

| Low-Income Claims by State: 2020<br>(in Thousands of Dollars) |           |                   |            |        |           |  |  |  |  |
|---|-----------|-------------------|------------|--------|-----------|--|--|--|--|
| State or Jurisdiction   |           | Lifeline          | Link U     | p      | Total     |  |  |  |  |
|   | General   | Additional Tribal | Non-Tribal | Tribal |           |  |  |  |  |
| Alabama   | \$8,591   | \$75              | \$0        | \$0    | \$8,667   |  |  |  |  |
| Alaska  | 2,191     | 5,856             | 0          | 7      | 8,055     |  |  |  |  |
| American Samoa  | 103       | 0                 | 0          | 0      | 103       |  |  |  |  |
| Arizona   | 18,112    | 12,079            | 0          | 71     | 30,262    |  |  |  |  |
| Arkansas  | 8,258     | 1                 | 0          | 0      | 8,259     |  |  |  |  |
| California  | 165,947   | 81                | 0          | 0      | 166,028   |  |  |  |  |
| Colorado  | 6,283     | 0                 | 0          | 0      | 6,283     |  |  |  |  |
| Connecticut   | 7,611     | 0                 | 0          | 0      | 7,611     |  |  |  |  |
| Delaware  | 1,418     | 0                 | 0          | 0      | 1,418     |  |  |  |  |
| District of Columbia  | 1,897     | 0                 | 0          | 0      | 1,897     |  |  |  |  |
| Florida   | 40,566    | 0                 | 0          | 0      | 40,566    |  |  |  |  |
| Georgia   | 28,222    | 0                 | 0          | 0      | 28,222    |  |  |  |  |
| Guam  | 48        | 0                 | 0          | 0      | 48        |  |  |  |  |
| Hawaii  | 741       | 25                | 0          | 0      | 766       |  |  |  |  |
| Idaho   | 1,009     | 21                | 0          | 0      | 1,030     |  |  |  |  |
| Illinois  | 21,643    | 0                 | 0          | 0      | 21,643    |  |  |  |  |
| Indiana   | 13,445    | 0                 | 0          | 0      | 13,445    |  |  |  |  |
| Iowa  | 5,043     | 0                 | 0          | 0      | 5,043     |  |  |  |  |
| Kansas  | 3,936     | 2                 | 0          | 0      | 3,939     |  |  |  |  |
| Kentucky  | 13,471    | 0                 | 0          | 0      | 13,471    |  |  |  |  |
| Louisiana   | 19,813    | 0                 | 0          | 0      | 19,813    |  |  |  |  |
| Maine   | 1,931     | 5                 | 0          | 0      | 1,936     |  |  |  |  |
| Maryland  | 14,659    | 0                 | 0          | 0      | 14,659    |  |  |  |  |
| Massachusetts   | 11,281    | 0                 | 0          | 0      | 11,281    |  |  |  |  |
| Michigan  | 25,665    | 66                | 0          | 0      | 25,731    |  |  |  |  |
| Minnesota   | 7,126     | 763               | 0          | 0      | 7,889     |  |  |  |  |
| Mississippi   | 6,697     | 168               | 0          | 0      | 6,865     |  |  |  |  |
| Missouri  | 9,357     | 2                 | 0          | 0      | 9,358     |  |  |  |  |
| Montana   | 196       | 380               | 0          | 2      | 578       |  |  |  |  |
| Nebraska  | 403       | 56                | 0          | 0      | 459       |  |  |  |  |
| Nevada  | 7,214     | 146               | 0          | 0      | 7,360     |  |  |  |  |
| New Hampshire   | 627       | 0                 | 0          | 0      | 627       |  |  |  |  |
| New Jersey  | 14,113    | 0                 | 0          | 0      | 14,113    |  |  |  |  |
| New Mexico  | 7,872     | 8,620             | 0          | 70     | 16,562    |  |  |  |  |
| New York  | 52,860    | 0                 | 0          | 0      | 52,860    |  |  |  |  |
| North Carolina  | 14,381    | 9                 | 0          | 0      | 14,389    |  |  |  |  |
| North Dakota  | 449       | 580               | 0          | 0      | 1,029     |  |  |  |  |
| Northern Mariana Islands                                      | 189       | 0                 | 0          | 0      | 189       |  |  |  |  |
| Ohio  | 35,626    | 0                 | 0          | 0      | 35,626    |  |  |  |  |
| Oklahoma  | 18,125    | 39,387            | 0          | 7      | 57,519    |  |  |  |  |
| Oregon  | 5,232     | 40                | 0          | 0      | 5,272     |  |  |  |  |
| Pennsylvania  | 32,793    | 0                 | 0          | 0      | 32,793    |  |  |  |  |
| Puerto Rico   | 50,977    | 0                 | 0          | 0      | 50,977    |  |  |  |  |
| Rhode Island  | 2,219     | 0                 | 0          | 0      | 2,219     |  |  |  |  |
| South Carolina  | 11,479    | 4                 | 0          | 0      | 11,483    |  |  |  |  |
| South Dakota  | 553       | 739               | 0          | 0      | 1,292     |  |  |  |  |
| Tennessee   | 12,039    | 0                 | 0          | 0      | 12,039    |  |  |  |  |
| Texas   | 40,915    | 0                 | 0          | 0      | 40,915    |  |  |  |  |
| Utah  | 2,028     | 375               | 0          | 3      | 2,406     |  |  |  |  |
| Vermont   | 912       | 0                 | 0          | 0      | 912       |  |  |  |  |
| Virgin Islands  | 70        | 0                 | 0          | 0      | 70        |  |  |  |  |
| Virginia  | 10,935    | 0                 | 0          | 0      | 10,935    |  |  |  |  |
| Washington  | 12,782    | 1,655             | 0          | 0      | 14,437    |  |  |  |  |
| West Virginia   | 6,381     | 0                 | 0          | 0      | 6,381     |  |  |  |  |
| Wisconsin   | 12,871    | 520               | 0          | 0      | 13,391    |  |  |  |  |
| Wyoming   | 31        | 19                | 0          | 0      | 50        |  |  |  |  |
| Total   | \$799,337 | \$71,675          | \$0        | \$161  | \$871,173 |  |  |  |  |

*Notes*: These dollars represent submitted claims to Universal Service Administrative Company (USAC) for the time period January 2020 through December 2020, including true-ups reported through August 2021. Lifeline subscribers residing on Tribal lands also receive the basic support amount, which is currently \$9.25 per subscriber for qualifying broadband service or \$5.25 per subscriber for qualifying voice service. This amount is not included in Tribal support. For Link Up, the payments and subscribers for the two categories of recipients are kept separate.

Table 2.4 - Low-Income Claims Received by ILECs and Competitive ETCs (in Thousands of Dollars)

|      | ILECs     | Competitive ETCs | Total     | Percent Competitive ETCs |
|------|-----------|------------------|-----------|--------------------------|
| 1998 | \$464,207 | \$260            | \$464,467 | 0.1 %                    |
| 1999 | 479,353   | 796              | 480,150   | 0.2                      |
| 2000 | 517,901   | 1,128            | 519,029   | 0.2                      |
| 2001 | 585,790   | 3,572            | 589,362   | 0.6                      |
| 2002 | 663,009   | 13,097           | 676,106   | 1.9                      |
| 2003 | 693,378   | 22,994           | 716,373   | 3.2                      |
| 2004 | 723,580   | 39,349           | 762,929   | 5.2                      |
| 2005 | 734,344   | 67,631           | 801,975   | 8.4                      |
| 2006 | 707,135   | 99,933           | 807,068   | 12.4                     |
| 2007 | 701,990   | 121,240          | 823,230   | 14.7                     |
| 2008 | 674,805   | 147,017          | 821,823   | 17.9                     |
| 2009 | 642,644   | 370,208          | 1,012,852 | 36.6                     |
| 2010 | 595,604   | 722,136          | 1,317,740 | 54.8                     |
| 2011 | 532,226   | 1,247,963        | 1,780,189 | 70.1                     |
| 2012 | 450,652   | 1,732,928        | 2,183,580 | 79.4                     |
| 2013 | 295,981   | 1,494,267        | 1,790,248 | 83.5                     |
| 2014 | 224,012   | 1,405,360        | 1,629,372 | 86.3                     |
| 2015 | 165,714   | 1,344,205        | 1,509,919 | 89.0                     |
| 2016 | 133,871   | 1,386,930        | 1,520,801 | 91.2                     |
| 2017 | 104,438   | 1,172,529        | 1,276,967 | 91.8                     |
| 2018 | 79,322    | 1,059,633        | 1,138,956 | 93.0                     |
| 2019 | 58,553    | 901,009          | 959,562   | 93.9                     |
| 2020 | 40,405    | 830,768          | 871,173   | 95.4                     |

*Notes*: Competitive Eligible Telecommunications Carriers (ETC) include both wireless and wireline carriers. Data for 2014-2019 were updated to account for true-ups.

Table 2.5 – Low-Income Claims by Program and by Affiliated Entities: 2020 (in Thousands of Dollars)

| Ranl | S Affiliated Entity Name 1                       | Lifeline<br>Support | Link Up<br>Support | Total<br>Low-Income<br>Support | Percent<br>of Total | Cumulative<br>Percent of<br>Total |
|------|--|---------------------|--------------------|--------------------------------|---------------------|-----------------------------------|
| 1    | T-Mobile USA, Inc.                               | \$243,756           | \$0                | \$243,756                      | 28.0%               | 28.0%                             |
| 2    | América Móvil                                    | 193,976             | 0                  | 193,976                        | 22.3                | 50.2                              |
| 3    | Quadrant Holdings Group LLC                      | 139,549             | 0                  | 139,549                        | 16.0                | 66.3                              |
| 4    | TSC Acquisition Corporation                      | 60,131              | 0                  | 60,131                         | 6.9                 | 73.2                              |
| 5    | Telrite Corporation                              | 29,210              | 0                  | 29,210                         | 3.4                 | 76.5                              |
| 6    | Smith Bagley, Inc.                               | 24,647              | 121                | 24,768                         | 2.8                 | 79.4                              |
| 7    | Assist Wireless, LLC                             | 23,291              | 0                  | 23,291                         | 2.7                 | 82.0                              |
| 8    | Amerimex Communications Corporation              | 23,221              | 0                  | 23,221                         | 2.7                 | 84.7                              |
| 9    | I-Wireless, LLC                                  | 15,849              | 0                  | 15,849                         | 1.8                 | 86.5                              |
| 10   | Telecom Service Bureau, Inc.                     | 13,974              | 0                  | 13,974                         | 1.6                 | 88.1                              |
| 11   | AT&T Inc.  | 13,540              | 0                  | 13,540                         | 1.6                 | 89.7                              |
| 12   | Global Connection Inc. of America                | 12,466              | 0                  | 12,466                         | 1.4                 | 91.1                              |
| 13   | GCI Holdings LLC                                 | 7,307               | 0                  | 7,307                          | 0.8                 | 91.9                              |
| 14   | Verizon Communications Inc.                      | 6,358               | 0                  | 6,358                          | 0.7                 | 92.7                              |
| 15   | Frontier Communications Corporation              | 5,083               | 0                  | 5,083                          | 0.6                 | 93.3                              |
| 16   | TerraCom/YourTel America                         | 4,980               | 0                  | 4,980                          | 0.6                 | 93.8                              |
| 17   | NewPhone Wireless, LLC                           | 4,779               | 0                  | 4,779                          | 0.5                 | 94.4                              |
| 18   | American Broadband and Telecommunications Compar | 4,765               | 0                  | 4,765                          | 0.5                 | 94.9                              |
| 19   | ATN International, Inc.                          | 4,318               | 0                  | 4,318                          | 0.5                 | 95.4                              |
| 20   | Cintex Wireless, LLC                             | 3,514               | 0                  | 3,514                          | 0.4                 | 95.8                              |
| 21   | Lumen Technologies, Inc.                         | 3,458               | 0                  | 3,458                          | 0.4                 | 96.2                              |
| 22   | Boomerang Wireless, LLC                          | 3,356               | 0                  | 3,356                          | 0.4                 | 96.6                              |
| 23   | True Wireless, LLC                               | 2,920               | 0                  | 2,920                          | 0.3                 | 96.9                              |
| 24   | IM Telecom, LLC                                  | 1,902               | 0                  | 1,902                          | 0.2                 | 97.2                              |
| 25   | Windstream Holdings, Inc.                        | 1,396               | 0                  | 1,396                          | 0.2                 | 97.3                              |
| 26   | North American Local, LLC                        | 1,389               | 0                  | 1,389                          | 0.2                 | 97.5                              |
| 27   | Cox Communications, Inc.                         | 1,363               | 0                  | 1,363                          | 0.2                 | 97.6                              |
| 28   | Cell Span, Inc.                                  | 1,209               | 0                  | 1,209                          | 0.1                 | 97.8                              |
| 29   | Telephone and Data Systems, Inc.                 | 960                 | 0                  | 960                            | 0.1                 | 97.9                              |
| 30   | Sacred Wind Enterprises, Inc.                    | 758                 | 22                 | 780                            | 0.1                 | 98.0                              |
|      | Other Carriers                                   | 17,589              | 17                 | 17,607                         | 2.0                 | 100.0                             |
|      | All Affiliated Entities                          | \$871,012           | \$161              | \$871,173                      | 100.0%              | 100.0%                            |

<sup>&</sup>lt;sup>1</sup> Affiliated entities include all commonly-controlled or commonly owned affiliates as of year-end 2020.

<sup>&</sup>lt;sup>2</sup> In 2020, T-Mobile USA, Inc. owned Sprint and Virgin Mobile USA.

América Móvil owns TracFone Wireless.

Table 2.6 – Total Monthly Lifeline Subscribers Since January 2016

|              | Subse           | cribers (in Thous      | ands)          | Percent of      | Subscribers that a     | re Wireless    |
|--------------|-----------------|------------------------|----------------|-----------------|------------------------|----------------|
| Month        | Tribal Lifeline | Non-Tribal<br>Lifeline | Total Lifeline | Tribal Lifeline | Non-Tribal<br>Lifeline | Total Lifeline |
| January-16   | 391             | 12,394                 | 12,785         | 84 %            | 89 %                   | 89 %           |
| February-16  | 391             | 12,362                 | 12,753         | 84              | 89                     | 89             |
| March-16     | 397             | 12,434                 | 12,831         | 84              | 89                     | 89             |
| April-16     | 402             | 12,566                 | 12,967         | 85              | 90                     | 90             |
| May-16       | 405             | 12,636                 | 13,041         | 85              | 90                     | 90             |
| June-16      | 349             | 12,726                 | 13,075         | 86              | 90                     | 90             |
| July-16      | 338             | 12,790                 | 13,128         | 86              | 90                     | 90             |
| August-16    | 332             | 12,428                 | 12,761         | 86              | 90                     | 90             |
| September-16 | 332             | 12,493                 | 12,825         | 88              | 91                     | 91             |
| October-16   | 334             | 12,397                 | 12,731         | 88              | 91                     | 91             |
| November-16  | 327             | 12,187                 | 12,514         | 89              | 91                     | 91             |
| December-16  | 317             | 11,672                 | 11,989         | 89              | 91                     | 91             |
| January-17   | 300             | 11,041                 | 11,341         | 89              | 91                     | 91             |
| February-17  | 301             | 10,883                 | 11,184         | 89              | 91                     | 91             |
| March-17     | 301             | 10,721                 | 11,022         | 88              | 91                     | 91             |
| April-17     | 297             | 10,513                 | 10,810         | 88              | 90                     | 90             |
| May-17       | 298             | 10,461                 | 10,759         | 88              | 91                     | 90             |
| June-17      | 298             | 10,481                 | 10,778         | 89              | 91                     | 91             |
| July-17      | 292             | 10,385                 | 10,677         | 89              | 91                     | 91             |
| August-17    | 290             | 10,287                 | 10,577         | 89              | 91                     | 91             |
| September-17 | 287             | 10,210                 | 10,498         | 89              | 91                     | 91             |
| October-17   | 285             | 10,276                 | 10,561         | 90              | 91                     | 91             |
| November-17  | 283             | 10,182                 | 10,465         | 90              | 91                     | 91             |
| December-17  | 282             | 10,087                 | 10,370         | 90              | 92                     | 91             |
| January-18   | 279             | 10,024                 | 10,303         | 90              | 92                     | 92             |
| February-18  | 277             | 9,912                  | 10,189         | 90              | 92                     | 92             |
| March-18     | 271             | 9,822                  | 10,094         | 90              | 92                     | 92             |
| April-18     | 268             | 9,602                  | 9,870          | 90              | 92                     | 92             |
| May-18       | 261             | 9,456                  | 9,717          | 90              | 92                     | 92             |
| June-18      | 259             | 9,336                  | 9,594          | 90              | 92                     | 92             |
| July-18      | 257             | 9,184                  | 9,441          | 90              | 92                     | 92             |
| August-18    | 250             | 9,079                  | 9,329          | 90              | 92                     | 92             |
| September-18 | 250             | 9,030                  | 9,281          | 90              | 92                     | 92             |
| October-18   | 243             | 9,010                  | 9,254          | 90              | 93                     | 93             |
| November-18  | 243             | 8,857                  | 9,100          | 90              | 93                     | 93             |
| December-18  | 233             | 8,793                  | 9,026          | 89              | 93                     | 93             |
| January-19   | 233             | 8,762                  | 8,994          | 89              | 93                     | 93             |
| February-19  | 235             | 8,649                  | 8,884          | 90              | 93                     | 93             |
| March-19     | 226             | 8,579                  | 8,805          | 89              | 93                     | 93             |
| April-19     | 225             | 8,500                  | 8,725          | 89              | 93                     | 93             |
| May-19       | 225             | 8,444                  | 8,669          | 90              | 93                     | 93             |
| June-19      | 227             | 8,368                  | 8,596          | 90              | 93                     | 93             |
| July-19      | 227             | 8,200                  | 8,426          | 90              | 94                     | 93             |
| August-19    | 229             | 7,268                  | 7,497          | 90              | 93                     | 93             |
| September-19 | 232             | 6,756                  | 6,987          | 90              | 92                     | 92             |
| October-19   | 230             | 6,943                  | 7,173          | 90              | 93                     | 93             |
| November-19  | 228             | 6,825                  | 7,053          | 90              | 93                     | 93             |
| December-19  | 228             | 6,698                  | 6,926          | 90              | 93                     | 93             |
| January-20   | 220             | 6,495                  | 6,715          | 92              | 93                     | 93             |
| February-20  | 222             | 6,492                  | 6,714          | 91              | 93                     | 93             |
| March-20     | 226             | 6,564                  | 6,789          | 91              | 93                     | 93             |
| April-20     | 230             | 6,777                  | 7,007          | 91              | 93                     | 93             |
| May-20       | 233             | 6,983                  | 7,216          | 91              | 93                     | 93             |
| June-20      | 238             | 7,065                  | 7,303          | 92              | 93                     | 93             |
| uly-20       | 246             | 7,177                  | 7,422          | 92              | 94                     | 94             |
| August-20    | 252             | 7,319                  | 7,570          | 92              | 94                     | 94             |
| September-20 | 257             | 7,454                  | 7,710          | 92              | 94                     | 94             |
| October-20   | 261             | 7,644                  | 7,905          | 92              | 94                     | 94             |
|              |                 |                        |                |                 |                        |                |
| November-20  | 265             | 7,830                  | 8,095          | 92              | 94                     | 94             |
| December-20  | 267             | 7,978                  | 8,245          | 92              | 94                     | 94             |
| January-21   | 269             | 8,156                  | 8,425          | 92              | 95                     | 94             |
| February-21  | 269             | 8,327                  | 8,596          | 93              | 95                     | 95             |
| March-21     | 271             | 8,481                  | 8,752          | 93              | 95                     | 95             |

Table 2.7 – Lifeline De-Enrollments or Scheduled De-Enrollments Recertification by State in 2020<sup>1</sup> (in Thousands)

| Alabama Alaska American Samoa Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia | 0<br>0<br>0<br>0<br>0<br>0<br>0 | 0<br>0<br>0<br>0<br>0<br>0<br>90 | 0<br>0<br>0<br>0<br>0 |
|--|---------------------------------|----------------------------------|-----------------------|
| American Samoa Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida                        | 0<br>0<br>0<br>0<br>0           | 0<br>0<br>0<br>90                | 0<br>0<br>0           |
| Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida                                       | 0<br>0<br>0<br>0                | 0<br>0<br>90<br>0                | 0<br>0                |
| Arkansas California Colorado Connecticut Delaware District of Columbia Florida   | 0<br>0<br>0<br>0                | 0<br>90<br>0                     | 0                     |
| Arkansas California Colorado Connecticut Delaware District of Columbia Florida   | 0<br>0<br>0<br>0                | 0<br>90<br>0                     | 0                     |
| California Colorado Connecticut Delaware District of Columbia Florida  | 0<br>0<br>0                     | 90<br>0                          |                       |
| Colorado Connecticut Delaware District of Columbia Florida   | 0                               | 0                                |                       |
| Connecticut Delaware District of Columbia Florida  | 0                               |                                  | 0                     |
| Delaware District of Columbia Florida  |                                 | 0                                | 0                     |
| District of Columbia<br>Florida  | U                               | 0                                | 0                     |
| Florida  | 0                               | 0                                | 0                     |
|  | 1                               | 0                                | 1                     |
| Georgia  | 0                               | 0                                | 0                     |
| C  |                                 |                                  |                       |
| Guam   | 0                               | 0                                | 0                     |
| Hawaii   | 0                               | 0                                | 0                     |
| Idaho  | 0                               | 0                                | 0                     |
| Illinois   | 0                               | 0                                | 0                     |
| Indiana  | 0                               | 0                                | 0                     |
| Iowa   | 0                               | 0                                | 0                     |
| Kansas   | 0                               | 0                                | 0                     |
| Kentucky   | 0                               | 0                                | 0                     |
| Louisiana  | 0                               | 0                                | 0                     |
| Maine  | 0                               | 0                                | 0                     |
| Maryland   | 0                               | 0                                | 0                     |
| Massachusetts  | 0                               | 0                                | 0                     |
| Michigan   | 0                               | 0                                | 0                     |
| Minnesota  | 1                               | 0                                | 1                     |
| Mississippi  | 0                               | 0                                | 0                     |
| Missouri   | 0                               | 0                                | 0                     |
| Montana  | 0                               | 0                                | 0                     |
| Nebraska   | 0                               | 0                                | 0                     |
| Nevada   | 0                               | 0                                | 0                     |
| New Hampshire  | 0                               | 0                                | 0                     |
| New Jersey   | 0                               | 0                                | 0                     |
| New Mexico   | 0                               | 0                                | 0                     |
|  | 0                               | 0                                | 0                     |
| New York   |                                 |                                  |                       |
| North Carolina   | 0                               | 0                                | 0                     |
| North Dakota   | 0                               | 0                                | 0                     |
| Northern Mariana Islands   | 0                               | 0                                | 0                     |
| Ohio   | 1                               | 1                                | 2                     |
| Oklahoma   | 0                               | 0                                | 0                     |
| Oregon   | 0                               | 0                                | 0                     |
| Pennsylvania   | 0                               | 0                                | 0                     |
| Puerto Rico  | 0                               | 0                                | 0                     |
| Rhode Island   | 0                               | 0                                | 0                     |
| South Carolina   | 0                               | 0                                | 0                     |
| South Dakota   | 0                               | 0                                | 0                     |
| Tennessee  | 0                               | 0                                | 0                     |
| Texas  | 0                               | 16                               | 16                    |
| Utah   | 0                               | 0                                | 0                     |
| Vermont  | 0                               | 0                                | 0                     |
| Virgin Islands   | 0                               | 0                                | 0                     |
| Virginia   | 0                               | 0                                | 0                     |
| Washington   | 0                               | 0                                | 0                     |
| West Virginia  | 0                               | 0                                | 0                     |
| Wisconsin  | 0                               | 0                                | 0                     |
|  |                                 |                                  |                       |
| Wyoming<br>Total   | 0 4                             | 0<br>109                         | 0<br>113              |

<sup>&</sup>lt;sup>1</sup> Lifeline recertification and reverification requirements were temporarily waived beginning in March of 2020 due to the coronavirus COVID-19 pandemic. WC Docket No. 11-42, Order, FCC 20-285 (2020).

<sup>&</sup>lt;sup>2</sup> Section G of the 2020 FCC Form 555.

 $<sup>^{\</sup>rm 3}$   $\,$  Section K of the 2020 FCC Form 555.

Table 2.8 – Low-Income Subscribers by State in 2020 by Facilities Type of Carrier (in Thousands)

| State                    |           | Non-Tribal |       |           | Tribal  |       |           | All      |       |  |
|--------------------------|-----------|------------|-------|-----------|---------|-------|-----------|----------|-------|--|
| State                    | Facilitie | es-Based   | Total | Facilitie | s-Based | Total | Facilitie | s-Based  | Total |  |
|                          | No        | Yes        | Total | No        | Yes     | Total | No        | Yes      | Total |  |
| Alabama                  | 29        | 50         | 80    | #         | #       | #     | 30        | 50       | 80    |  |
| Alaska                   | 0         | #          | #     | 0         | 20      | 20    | 0         | 20       | 20    |  |
| American Samoa           | 0         | 1          | 1     | 0         | 0       | 0     | 0         | 1        | 1     |  |
| Arizona                  | 84        | 39         | 124   | #         | 41      | 41    | 85        | 80       | 165   |  |
| Arkansas                 | 55        | 21         | 75    | 0         | #       | #     | 55        | 21       | 75    |  |
| California               | 926       | 622        | 1,548 | #         | #       | #     | 926       | 623      | 1,549 |  |
| Colorado                 | 36        | 22         | 58    | 0         | 0       | 0     | 36        | 22       | 58    |  |
| Connecticut              | 24        | 46         | 70    | 0         | 0       | 0     | 24        | 46       | 70    |  |
| Delaware                 | 4         | 9          | 13    | 0         | 0       | 0     | 4         | 9        | 13    |  |
| District of Columbia     | 7         | 11         | 17    | 0         | 0       | 0     | 7         | 11       | 17    |  |
| Florida                  | 140       | 234        | 374   | 0         | 0       | 0     | 140       | 234      | 374   |  |
| Georgia                  | 187       | 71         | 257   | 0         | 0       | 0     | 187       | 71       | 257   |  |
| Guam                     | 0         | 1          | 1     | 0         | 0       | 0     | 0         | 1        | 1     |  |
| Hawaii                   | 6         | 1          | 7     | #         | 0       | #     | 6         | 1        | 7     |  |
| Idaho                    | 7         | 2          | 9     | #         | #       | #     | 7         | 2        | 9     |  |
| Illinois                 | 117       | 81         | 198   | 0         | 0       | 0     | 117       | 81       | 198   |  |
|                          |           | 38         | l     | 0         | 0       | 0     | 84        |          |       |  |
| Indiana<br>Iowa          | 84        | 38<br>11   | 123   | #         | #       |       |           | 38<br>11 | 123   |  |
|                          | 36        |            | 47    |           |         | #     | 36        |          | 47    |  |
| Kansas                   | 31        | 6          | 36    | #         | #       | #     | 31        | 6        | 36    |  |
| Kentucky                 | 95        | 29         | 124   | 0         | 0       | 0     | 95        | 29       | 124   |  |
| Louisiana                | 146       | 34         | 180   | 0         | 0       | 0     | 146       | 34       | 180   |  |
| Maine                    | 13        | 5          | 19    | 0         | #       | #     | 13        | 5        | 19    |  |
| Maryland                 | 87        | 46         | 133   | 0         | 0       | 0     | 87        | 46       | 133   |  |
| Massachusetts            | 37        | 70         | 107   | 0         | 0       | 0     | 37        | 70       | 107   |  |
| Michigan                 | 134       | 101        | 235   | #         | #       | #     | 134       | 101      | 235   |  |
| Minnesota                | 47        | 17         | 64    | 1         | 2       | 3     | 48        | 19       | 67    |  |
| Mississippi              | 23        | 38         | 61    | 1         | 0       | 1     | 23        | 38       | 61    |  |
| Missouri                 | 58        | 27         | 85    | 0         | #       | #     | 58        | 27       | 85    |  |
| Montana                  | 0         | 1          | 1     | 0         | 1       | 1     | 0         | 2        | 2     |  |
| Nebraska                 | 1         | 3          | 4     | 0         | #       | #     | 1         | 4        | 4     |  |
| Nevada                   | 46        | 19         | 65    | #         | #       | #     | 46        | 20       | 66    |  |
| New Hampshire            | 4         | 2          | 6     | 0         | 0       | 0     | 4         | 2        | 6     |  |
| New Jersey               | 42        | 91         | 133   | 0         | 0       | 0     | 42        | 91       | 133   |  |
| New Mexico               | 9         | 35         | 44    | 0         | 29      | 29    | 9         | 64       | 73    |  |
| New York                 | 180       | 322        | 502   | 0         | #       | #     | 180       | 322      | 502   |  |
| North Carolina           | 61        | 73         | 134   | 0         | #       | #     | 61        | 73       | 134   |  |
| North Dakota             | #         | 2          | 3     | 1         | 1       | 2     | 1         | 4        | 5     |  |
| Northern Mariana Islands | 0         | 2          | 2     | 0         | 0       | 0     | 0         | 2        | 2     |  |
| Ohio                     | 210       | 116        | 326   | 0         | 0       | 0     | 210       | 116      | 326   |  |
| Oklahoma                 | 33        | 2          | 35    | 123       | 10      | 133   | 156       | 11       | 168   |  |
| Oregon                   | 5         | 45         | 50    | #         | #       | #     | 5         | 45       | 50    |  |
| Pennsylvania             | 199       | 103        | 302   | 0         | 0       | 0     | 199       | 103      | 302   |  |
| Puerto Rico              | 394       | 68         | 463   | 0         | 0       | 0     | 394       | 68       | 463   |  |
|                          |           |            | l     |           |         | 0     |           |          |       |  |
| Rhode Island             | 8         | 13         | 20    | 0         | 0       |       | 8         | 13       | 20    |  |
| South Carolina           | 70        | 36         | 106   | 0         | #       | #     | 70        | 36       | 106   |  |
| South Dakota             | #         | 3          | 3     | 0         | 3       | 3     | #         | 6        | 6     |  |
| Tennessee                | 63        | 49         | 112   | 0         | 0       | 0     | 63        | 49       | 112   |  |
| Texas                    | 207       | 169        | 376   | #         | #       | #     | 207       | 169      | 376   |  |
| Utah                     | 13        | 4          | 17    | #         | 1       | 1     | 13        | 6        | 19    |  |
| Vermont                  | 6         | 3          | 9     | 0         | 0       | 0     | 6         | 3        | 9     |  |
| Virgin Islands           | #         | 1          | 1     | 0         | 0       | 0     | #         | 1        | 1     |  |
| Virginia                 | 48        | 54         | 102   | 0         | 0       | 0     | 48        | 54       | 102   |  |
| Washington               | 84        | 29         | 112   | 5         | 1       | 6     | 88        | 30       | 118   |  |
| West Virginia            | 50        | 8          | 58    | 0         | 0       | 0     | 50        | 8        | 58    |  |
| Wisconsin                | 99        | 18         | 117   | #         | 1       | 2     | 99        | 19       | 119   |  |
| Wyoming                  | #         | #          | #     | #         | #       | #     | #         | #        | #     |  |
| Total                    | 4,243     | 2,905      | 7,148 | 131       | 112     | 243   | 4,374     | 3,017    | 7,391 |  |

Non-facilities based carriers have either submitted a compliance plan with the FCC that they are not a facilities-based provider or have been approved to be a non-facilities-based provider by the FCC. Other carriers are assumed to be facilities-based.

Notes: # indicates subscriber counts greater than 0 and less than 500.

Table 2.9 – Lifeline Subscribers by Type of Service: 2020

| Montana         1         #         1         2         57         15         29           Nebraska         3         1         1         4         64         18         18           Nevada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28           New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         549         30         21           North Carolina         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20   |               |       | Subscribers (in | n Thousands) |       |       | Percentage |        |
|--|---------------|-------|-----------------|--------------|-------|-------|------------|--------|
| Alabama  | State         | Voice | Broadband       | Dundle       | Total | Voice | Broadband  | Dundle |
| Alaska 3 # 18 20 13 1 87 American Samoa 1 0 # 1 58 0 42 Arizona 6 95 64 165 4 57 39 Arkanisas 3 38 34 75 5 51 45 Colorado 5 48 5 58 8 83 9 Connecticut 7 43 20 70 10 62 28 Delaware 1 9 3 13 10 65 25 District of Columbia 1 10 6 17 8 59 32 Elorida 38 218 118 374 10 58 32 Georgia 14 176 67 257 5 69 26 Guam 1 # # # 1 99 1 0 0 Hawaii 1 1 7 16 69 14 Idaho 1 7 16 69 14 Idaho 1 7 1 9 1 9 12 80 8 Illinois 13 93 93 198 6 47 47 Indiana 7 94 22 123 6 76 18 Iowa 5 28 14 47 11 60 29 Kansas 3 3 25 8 44 47 11 60 29 Kansas 3 3 25 8 8 6 9 23 Kentucky 10 66 48 124 8 53 39 Couisiana 7 94 22 123 6 76 18 Iowa 5 8 8 6 19 29 40 31 Maiyahad 6 8 8 6 19 29 40 31 Maiyahad 6 8 83 46 19 29 40 31 Maiyahad 6 8 83 49 13 85 5 5 79 Isinssissippi 4 3 8 6 19 29 40 31 Missachusetts 21 56 29 107 20 53 27 Minnesora 11 45 10 67 17 17 67 15 Mississippi 4 3 8 19 6 6 7 7 15 Mississippi 4 3 8 7 13 19 13 19 13 19 15 Mississippi 4 3 8 7 13 19 13 19 15 Mississippi 4 3 8 7 13 19 13 19 15 Mississippi 4 3 8 7 13 19 13 19 15 Mississippi 4 3 8 7 13 19 15 19 15 Montana 1 # 1 1 2 5 7 17 67 15 Montana 1 1 1 45 10 67 17 67 15 Mississippi 4 3 8 19 6 6 7 7 6 15 Minnesora 11 3 3 9 3 9 3 9 3 9 3 9 3 9 3 9 3 9 3   |               |       |                 |              |       |       |            |        |
| American Samoa   |               |       |                 |              |       |       |            |        |
| Arizona 6 95 64 165 4 57 39 Arkansas 3 38 34 75 5 5 51 45 California 229 15 1,304 1,549 15 1 84 Colorado 5 48 5 58 8 83 9 Colorado 7 43 20 70 10 62 28 Delaware 1 9 3 13 10 65 25 Delaware 1 1 9 6 6 17 8 59 32 Elorida 38 218 118 374 10 58 32 Elorida 38 218 118 374 10 58 32 Elorida 1 1 6 67 257 5 69 26 Guam 1 1 # # 1 9 92 1 0 1 Carongia 1 1 7 1 9 12 80 8 Elimois 1 7 1 9 12 80 8 Ellinois 1 3 93 93 198 6 47 47 Ellinois 1 3 93 93 198 6 47 47 Ellinois 1 3 93 93 198 6 6 67 61 Ellinois 1 3 93 93 198 6 6 67 61 Ellinois 1 3 93 93 198 6 6 67 61 Ellinois 1 3 93 93 198 6 6 76 18 Elowa 5 28 14 47 11 60 29 Elorada 7 96 77 180 8 6 8 69 23 Elorida 6 8 3 45 133 5 62 34 Eloridan 6 8 3 45 133 5 62 34 Eloridan 7 96 77 180 8 53 39 Louisiana 7 96 77 180 8 54 54 43 Eloridan 18 165 52 235 8 70 22 Eloridan 19 4 38 19 61 7 62 31 Eloridan 19 4 38 19 61 7 62 31 Eloridan 19 7 7 7 19 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7  |               |       |                 |              |       | l     |            |        |
| Arkansas 3 38 34 75 5 5 51 45 Colorado 5 48 5 58 8 8 3 9 Connecticut 7 43 20 70 10 62 28 District of Columbia 1 10 6 17 8 59 52 District of Columbia 1 10 6 17 8 59 52 District of Columbia 1 10 6 17 8 59 52 Correcticut 7 1 9 3 13 10 65 25 District of Columbia 1 10 6 17 8 59 52 Correcticut 7 1 9 3 13 10 65 25 District of Columbia 1 1 10 6 17 8 59 52 Correction 1 1 8 1 10 6 17 8 59 52 Correction 1 1 8 1 1 9 1 9 1 1 0 58 52 Correction 1 1 8 1 1 9 1 9 1 1 0 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 1 0 1 1 0 |               |       |                 |              |       |       |            |        |
| California   |               |       |                 |              |       |       |            |        |
| Colorado 5 48 5 58 8 8 33 9  Delaware 1 7 43 20 70 10 62 28  Delaware 1 1 9 3 13 10 65 25  District of Columbia 1 10 6 17 8 59 32  Elorida 38 218 118 374 10 58 32  Georgia 14 176 67 257 5 69 26  Guam 1 1 # 1 1 9 12 1 0 16 69 14  Hawaii 1 5 1 7 16 69 14  Hawaii 1 7 1 5 1 7 16 69 14  Hawaii 1 7 7 1 1 9 12 80 8  Hawaii 1 7 7 1 1 9 12 80 8  Hawaii 1 7 7 1 1 9 12 80 8  Kansa 3 93 93 198 6 7 11 60 8  Kansas 3 25 8 36 8 69 23  Kansas 3 25 8 6 19 29 40 31  Louisiana 7 96 77 180 4 54 43  Maine 5 8 6 19 29 40 31  Maine 5 8 6 19 29 40 31  Maisen 5 8 6 19 29 40 31  Maisen 5 8 6 19 29 40 31  Maisen 5 8 6 19 29 40 31  Massachusetts 21 56 29 107 20 53 27  Minhigan 18 165 52 235 8 70 22  Minnesota 11 45 10 67 17 67 15  Mississipi 4 38 19 61 7 62 31  Mississipi 5 68 13 85 5 79 15  Montana 1 # 1 2 2 57 15 29  Montana 1 # 1 2 2 57 15 20  Montana 1 # 1 2 2 57 15 20  Montana 1 1 # 1 2 2 57 15 20  Montana 1 1 # 1 2 2 57 15 20  Montana 1 1 3 3 2 6 6 6 7 7 3 8 8 8 8 8 8 8 7 9 22  Minnesota 11 237 154 502 22 47 31  Missouri 5 68 13 85 5 79 15  New Hernsphire 1 3 3 2 6 6 16 47 37  New Jersey 25 71 37 133 19 53 28  New Mexico 8 25 40 73 113 4 55  New Mexico 14 107 342 463 3 23 24 7 31  North Carolina 20 64 51 134 15 47 38  New Mexico 14 107 342 463 3 23 24 7 31  North Carolina 20 64 51 134 15 47 38  North Carolina 20 64 51 134 15 47 38  North Carolina 20 64 51 134 15 47 38  North Carolina 20 64 51 134 15 47 38  North Carolina 10 74 22 106 9 70 21  Norther Mariana Islands # # # 2 2 2 9 9 1 9 9 67 23  North Carolina 10 74 22 106 9 70 21  North Carolina 10 74 22 106 9 70 21  North Carolina 10 74 22 106 9 70 21  North Carolina 10 74 22 106 9 70 21  North Carolina 10 74 22 106 9 70 21  North Carolina 10 74 22 106 9 70 21  North Carolina 11 78 30 119 9 9 66 23  West Virginia 13 52 36 60 102 13 51 36  Wisconsin 11 78 30 119 9 9 66 23  Wisconsin 11 78  |               |       |                 |              |       |       |            |        |
| Connecticut 7 43 20 70 10 62 28 Delaware 1 9 3 13 13 10 65 25 Delaware 1 1 9 3 3 13 10 65 25 Delaware 1 1 9 3 3 13 10 65 25 Delaware 1 1 9 9 3 13 13 10 65 25 Delaware 1 1 10 6 17 8 59 32 District of Columbia 1 1 10 6 17 8 59 32 District of Columbia 38 218 118 374 10 58 32 District of Columbia 1 1 76 67 257 5 69 26 Guam 1 1 # # 1 1 99 1 0 0 Hawaii 1 5 1 7 1 66 69 14 Idaho 1 1 7 1 9 12 80 8 Billinois 13 93 93 198 6 47 47 Indiana 7 94 22 123 6 76 18 Iowa 5 28 14 47 11 60 29 Kentucky 10 66 48 124 8 53 39 Louisiana 7 96 77 180 4 54 43 Maine 5 8 6 19 29 40 31 Maryland 6 83 45 133 5 62 34 Minnesota 11 45 10 67 17 67 15 Mississippi 4 38 165 52 235 8 70 22 Minnesota 11 45 10 67 17 62 31 Missouri 5 68 13 85 5 79 15 Mississippi 4 38 19 61 7 62 31 Missouri 5 68 13 85 5 79 15 Mismesota 1 1 4 1 1 4 6 1 1 7 62 31 Missouri 5 68 13 85 5 79 15 Montana 1 1 # 1 2 5 77 15 29 New Hampshire 1 3 3 2 6 6 16 47 37 New Jersey 25 71 37 133 19 53 28 New Mexico 8 25 40 73 113 4 55 New Mexico 8 25 40 73 113 4 55 New York 111 237 154 502 22 47 31 North Carolina 20 64 51 134 155 49 30 21 Northern Mariana Islands # # 2 2 2 9 9 1 9 30 New Hampshire 1 3 3 2 6 6 6 73 20 Okahoma 19 78 71 168 11 24 41 44 41 45 North Dakota 2 1 1 1 5 49 30 21 Northern Mariana Islands # # 2 2 9 9 1 9 00 Okahoma 19 78 71 168 11 24 41 41 45 North Carolina 20 64 51 134 155 47 38 North Dakota 3 2 17 9 164 376 9 48 84 Utah 44 14 44 14 45 Virginia 13 52 36 102 13 51 Virginia 13 52 36 102 13 51 Virginia 13 52 36 102 13 51 Wisconsin 11 78 30 119 9 9 86 22 West Virginia 13 52 36 102 13 51 Wisconsin 11 78 30 119 9 86 22 West Virginia 13 52 36 102 13 51 Wisconsin 11 78 30 119 9 9 66 22 32  |               |       |                 |              |       |       |            |        |
| Delaware   |               |       |                 |              |       |       |            | -      |
| District of Columbia   |               |       |                 |              |       |       |            |        |
| Florida Georgia 14 176 67 257 5 69 26 Guam 1 1 # # 1 1 99 1 0 Hawaii 1 5 1 7 16 69 Hawaii 1 1 7 1 9 12 80 8 Hilinois 13 93 93 198 6 47 47 Holdiana 7 94 22 123 6 76 Hawaii Howa 5 28 14 4 7 11 60 29 Kansas 3 25 8 36 8 69 23 Kansas 3 25 8 36 8 69 23 Kansas 3 25 8 36 8 69 23 Kansas 3 25 8 6 19 29 40 31 Mayland 6 83 45 133 5 62 34 Massachusetts 1 1 5 6 29 107 20 53 27 Michigan 1 8 165 52 235 8 70 22 Minnesota 1 1 45 10 67 17 67 15 Mississippi 4 38 19 61 7 62 31 Missouri 5 68 13 85 5 79 15 Montana 1 1 # 1 2 57 15 29 Missouri 1 3 2 6 16 47 37 North Carolina 1 1 3 2 6 16 6 47 37 New Hampshire 1 3 2 6 16 47 37 New Jersey 2 5 7 1 5 29 New Mexico 8 25 40 73 11 34 15 47 38 North Dakota North Dakota North Dakota North Dakota 1 1 33 6 50 22 24 47 31 North Carolina 2 0 64 51 134 15 49 30 21 North Carolina 2 1 1 3 3 2 6 6 73 3 8 8 9 9 1 9 9 1 9 9 9 1 9 9  |               | _     |                 |              |       |       |            |        |
| Georgia  |               |       |                 |              |       |       | • • •      |        |
| Guan   |               |       |                 |              |       |       |            |        |
| Hawaii   |               |       |                 |              |       |       |            |        |
| Idaho         1         7         1         9         12         80         8           Illinois         13         93         93         198         6         47         11         60         29         48         18         47         41         60         29         48         48         124         8         53         39         20         48         48         124         8         53         39         20         43         34         48         13         48         43         45         43         43         43         43         43         44         43         43         43         43         44         43         43         43         44         43         44         43         44         43         44         43         44         43         44         44         44         44         44         44         44         44         44  |               |       |                 |              |       |       |            |        |
| Illinois   |               |       |                 |              |       | l     |            |        |
| Indiana  |               |       |                 |              |       |       |            |        |
| Iowa         5         28         14         47         11         60         29           Kansas         3         25         8         36         8         69         23           Kentucky         10         66         48         124         8         53         39           Louisiana         7         96         77         180         4         54         43           Maine         5         8         6         19         29         40         31           Maryland         6         83         45         133         5         62         34           Massachusetts         21         56         29         107         20         53         27           Michigan         18         165         52         235         8         70         22   |               |       |                 |              |       | l     |            |        |
| Kansas         3         25         8         36         8         69         23           Kentucky         10         66         48         124         8         53         39           Louisiana         7         96         77         180         4         54         43           Maine         5         8         6         19         29         40         31           Maryland         6         83         45         133         5         62         34           Massachusetts         21         56         29         107         20         53         27           Michigan         18         165         52         235         8         70         22           Minesota         11         45         10         67         17         67         15           Mississippi         4         38         19         61         7         62         31           Missouri         5         68         13         85         5         79         15           Mortanaa         1         #         1         2         57         15         29 <t< td=""><td></td><td></td><td></td><td></td><td></td><td>l</td><td></td><td></td></t<>   |               |       |                 |              |       | l     |            |        |
| Kentucky         10         66         48         124         8         53         39           Louisiana         7         96         77         180         4         54         43           Marine         5         8         6         19         29         40         31           Maryland         6         83         45         133         5         62         34           Massachusetts         21         56         29         107         20         53         27           Michigan         18         165         52         235         8         70         22           Minesota         11         45         10         67         17         67         15           Mississippi         4         38         19         61         7         62         31           Missouri         5         68         13         85         5         79         15           Missouri         5         68         13         8         5         5         79         15           Missouri         5         48         13         1         1         4         64   |               |       |                 |              |       | l     |            |        |
| Douisiana  |               |       |                 |              |       |       |            |        |
| Maine         5         8         6         19         29         40         31           Maryland         6         83         45         133         5         62         34           Massachusetts         21         56         29         107         20         53         27           Michigan         18         165         52         235         8         70         22           Minnesota         11         45         10         67         17         67         15           Minnesota         11         45         10         67         17         67         15           Mississippi         4         38         19         61         7         62         31           Missouri         5         68         13         85         5         79         15           Montana         1         #         1         2         57         15         29           Mothada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37  |               |       |                 |              |       |       |            |        |
| Maryland         6         83         45         133         5         62         34           Massachusetts         21         56         29         107         20         53         27           Michigan         18         165         52         235         8         70         22           Mimesota         11         45         10         67         17         67         15           Missispipi         4         38         19         61         7         62         31           Missouri         5         68         13         85         5         79         15           Montana         1         #         1         2         57         15         29           Nebraska         3         1         1         4         64         18         18           New Adada         3         49         13         66         5         75         15         29           New Hamshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28  |               |       |                 |              |       | l     |            |        |
| Massachusetts         21         56         29         107         20         53         27           Michigan         18         165         52         235         8         70         22           Michigan         11         45         10         67         17         67         15           Misnouri         5         68         13         85         5         79         15           Montana         1         #         1         2         57         15         29           Morbraska         3         1         1         4         64         18         18           Nevada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28   |               |       |                 |              |       | l     |            |        |
| Michigan         18         165         52         235         8         70         22           Minnesota         11         45         10         67         17         67         15           Mississippi         4         38         19         61         7         62         31           Missouri         5         68         13         85         5         79         15           Montana         1         #         1         2         57         15         29           Nebraska         3         1         1         4         64         18         18           Nevada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28  | *             |       |                 |              |       |       |            |        |
| Minnesota         11         45         10         67         17         67         15           Mississippi         4         38         19         61         7         62         31           Missiouri         5         68         13         85         5         79         15           Montana         1         #         1         2         57         15         29           Nebraska         3         1         1         4         64         18         18           New Horaca         3         49         13         66         5         75         20           New Horaca         3         49         13         66         5         75         20           New Jersey         25         71         37         133         19         53         28           New Jersey         25         71         37         133         19         53         28           New Jersey         25         71         37         133         19         53         28           New York         111         237         154         502         22         47         31   |               |       |                 |              |       | l     |            |        |
| Mississippi         4         38         19         61         7         62         31           Missouri         5         68         13         85         5         79         15           Montana         1         #         1         2         57         15         29           Nebraska         3         1         1         4         64         18         18           Nevada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28           New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Carolina         2         1         1         5         49         30         21      <   |               |       |                 |              |       |       |            |        |
| Missouri         5         68         13         85         5         79         15           Montana         1         #         1         2         57         15         29           Nebraska         3         1         1         4         64         18         18           Newada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37           New Hersey         25         71         37         133         19         53         28           New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         49         30         21           North Dakota         2         1         1         5         49         30         21   |               |       |                 |              |       |       |            |        |
| Montana         1         #         1         2         57         15         29           Nebraska         3         1         1         4         64         18         18           Nevada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28           New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         549         30         21           North Carolina         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20   | Mississippi   |       | 38              | 19           |       |       |            | 31     |
| Nebraska         3         1         1         4         64         18         18           Nevada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28           New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         49         30         21           North Dakota         2         1         1         5         49         30         21           North Dakota         2         1         1         1         5         49         30         21           Oregon         11         33         6         50         23         65         12<  | Missouri      |       |                 |              |       | l     |            |        |
| Nevada         3         49         13         66         5         75         20           New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28           New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         49         30         21           Northem Mariana Islands         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20           Oklahoma         19         78         71         168         11         46         42           Oregon         11         33         6         50         23         65         12  | Montana       |       | #               | 1            | 2     | 57    | 15         | 29     |
| New Hampshire         1         3         2         6         16         47         37           New Jersey         25         71         37         133         19         53         28           New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         49         30         21           North Dakota         2         1         1         5         49         30         21           Northe Mariana Islands         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20           Ohio         21         239         66         326         6         73         20           Ohio         21         239         66         326         326         6         73  | Nebraska      |       |                 |              |       |       |            |        |
| New Jersey         25         71         37         133         19         53         28           New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         49         30         21           North Dakota         2         1         1         5         49         30         21           North Dakota         2         1         1         5         49         30         21           North Dakota         2         1         1         5         49         30         21           North Dakota         2         1         1         5         49         30         21           Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27   | Nevada        |       |                 |              | 66    | 5     | 75         | 20     |
| New Mexico         8         25         40         73         11         34         55           New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         49         30         21           Northem Mariana Islands         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20           Oklahoma         19         78         71         168         11         46         42           Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27           Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23  | New Hampshire |       |                 |              |       |       |            |        |
| New York         111         237         154         502         22         47         31           North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         49         30         21           Northern Mariana Islands         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20           Oklahoma         19         78         71         168         11         46         42           Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70   | New Jersey    |       |                 |              |       | 19    |            |        |
| North Carolina         20         64         51         134         15         47         38           North Dakota         2         1         1         5         49         30         21           Northem Mariana Islands         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20           Oklahoma         19         78         71         168         11         46         42           Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45   |               |       |                 |              |       |       |            |        |
| North Dakota         2         1         1         5         49         30         21           Northem Mariana Islands         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20           Oklahoma         19         78         71         168         11         46         42           Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45<   |               |       |                 |              |       |       |            |        |
| Northem Mariana Islands         #         #         2         2         9         1         90           Ohio         21         239         66         326         6         73         20           Oklahoma         19         78         71         168         11         46         42           Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>  |               |       |                 |              |       |       |            |        |
| Ohio         21         239         66         326         6         73         20           Oklahoma         19         78         71         168         11         46         42           Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23   |               |       |                 |              |       |       |            |        |
| Oklahoma         19         78         71         168         11         46         42           Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4      <   |               |       |                 |              |       |       |            |        |
| Oregon         11         33         6         50         23         65         12           Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73      <   |               |       |                 |              | 326   | 6     |            |        |
| Pennsylvania         27         193         82         302         9         64         27           Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36  |               |       |                 |              |       |       |            |        |
| Puerto Rico         14         107         342         463         3         23         74           Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22  |               |       |                 |              |       |       |            |        |
| Rhode Island         2         16         3         20         11         76         14           South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22           West Virginia         3         35         20         58         6         60         34      <   |               |       |                 |              |       |       |            |        |
| South Carolina         10         74         22         106         9         70         21           South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22           West Virginia         3         35         20         58         6         60         34           Wisconsin         11         78         30         119         9         66         25 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>   |               |       |                 |              |       |       |            |        |
| South Dakota         3         2         1         6         55         32         13           Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22           West Virginia         3         35         20         58         6         60         34           Wisconsin         11         78         30         119         9         66         25           Wyoming         #         #         #         #         #         #         6         0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>l</td><td></td><td></td></td<>  |               |       |                 |              |       | l     |            |        |
| Tennessee         16         45         51         112         14         41         45           Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22           West Virginia         3         35         20         58         6         60         34           Wisconsin         11         78         30         119         9         66         25           Wyoming         #         #         #         #         #         66         2         32   |               |       |                 | 22           | 106   |       |            |        |
| Texas         32         179         164         376         9         48         44           Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22           West Virginia         3         35         20         58         6         60         34           Wisconsin         11         78         30         119         9         66         25           Wyoming         #         #         #         #         #         66         2         32   |               |       |                 |              |       |       |            |        |
| Utah         2         13         4         19         9         67         23           Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22           West Virginia         3         35         20         58         6         60         34           Wisconsin         11         78         30         119         9         66         25           Wyoming         #         #         #         #         #         66         2         32  |               |       |                 |              |       |       |            |        |
| Vermont         2         6         #         9         28         68         4           Virgin Islands         #         #         #         1         26         1         73           Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22           West Virginia         3         35         20         58         6         60         34           Wisconsin         11         78         30         119         9         66         25           Wyoming         #         #         #         #         66         2         32   |               |       |                 |              |       |       |            |        |
| Virgin Islands     #     #     #     1     26     1     73       Virginia     13     52     36     102     13     51     36       Washington     12     81     25     118     10     68     22       West Virginia     3     35     20     58     6     60     34       Wisconsin     11     78     30     119     9     66     25       Wyoming     #     #     #     #     66     2     32   |               |       | 13              |              |       |       |            |        |
| Virginia         13         52         36         102         13         51         36           Washington         12         81         25         118         10         68         22           West Virginia         3         35         20         58         6         60         34           Wisconsin         11         78         30         119         9         66         25           Wyoming         #         #         #         66         2         32  |               |       |                 |              |       |       |            |        |
| Washington     12     81     25     118     10     68     22       West Virginia     3     35     20     58     6     60     34       Wisconsin     11     78     30     119     9     66     25       Wyoming     #     #     #     66     2     32   |               |       |                 |              | 1     | l     |            |        |
| West Virginia     3     35     20     58     6     60     34       Wisconsin     11     78     30     119     9     66     25       Wyoming     #     #     #     #     66     2     32  |               |       |                 |              | 102   |       |            |        |
| Wisconsin     11     78     30     119     9     66     25       Wyoming     #     #     #     #     66     2     32   |               |       |                 |              |       | 10    |            |        |
| Wyoming # # # # 66 2 32  | West Virginia |       |                 |              |       |       | 60         |        |
| , .  | Wisconsin     | 11    | 78              | 30           | 119   | 9     | 66         |        |
| Total 812 3,255 3,324 7,391 11 % 44 % 45 %   | Wyoming       | #     | #               | #            | #     | 66    | 2          | 32     |
|  | Total         | 812   | 3,255           | 3,324        | 7,391 | 11 %  | 44 %       | 45 %   |

<sup>&</sup>lt;sup>1</sup> # indicates subscriber counts greater than 0s and less than 500.

Source: Universal Service Administrative Company.

Voice: Subscriber is provided a service that meets only the voice minimum service standards (mobile voice service with at least 1,000 minutes per month, or fixed voice service with any number of minutes)

Broadband Only: Subscriber is provided a service that meets only the broadband minimum service standards (3G speed and 3GB usage allowance for wireless providers; 20/3 Mbps speed and 1,024 GB usage allowance for wireline providers.)

Bundle: Subscriber is provided a service that meets both the voice and broadband minimum service standards.

## Section 3 – Connect America Fund (High Cost) Program

Federal universal service High-Cost Support is designed to ensure that consumers in rural, insular, and high-cost areas have access to modern communications networks capable of providing voice and broadband service, both fixed and mobile, at rates that are reasonably comparable to those in urban areas. The program fulfills this universal service goal by allowing eligible carriers who serve these areas to recover some of their costs from the federal USF. In 2011, the Commission adopted the *USF/ICC Transformation Order*, which comprehensively reformed and modernized the high-cost program to support networks capable of providing both voice *and* broadband services.<sup>3</sup> Among other actions taken in the *USF/ICC Transformation Order*, the Commission adopted a framework, known as the Connect America Fund (CAF).<sup>4</sup>

For price-cap areas (those areas of the United States and its territories historically served by larger incumbent local exchange carriers (ILECs)), there are several CAF programs: CAF Phase I (completed); CAF Phase II (model-based support), CAF Intercarrier Compensation (CAF ICC), the Rural Broadband Experiments, frozen support for Alaska price cap carriers, Bringing Puerto Rico Together (Uniendo a Puerto Rico) Fund and the Connect USVI Fund, and the CAF Phase II auction.

In January 2020, the Commission established the new Rural Digital Opportunity Fund as a successor to the CAF Phase II program.<sup>5</sup> The Rural Digital Opportunity Fund auction commenced on October 29, 2020, and closed on November 25, 2020.

For rate-of-return areas (typically the more rural parts of the United States), the Commission established two paths for providers to receive high-cost support for building, supporting and maintaining voice and broadband networks — 1) model-based support as determined by the Alternative Connect America Cost Model (A-CAM or A-CAM 2) legacy cost-based mechanisms as reformed to allow support for standalone broadband connections.<sup>6</sup> The Commission also created an Alaska Plan to fund voice and broadband services for rate-of-return carriers serving Alaska, due to their unique challenges.<sup>7</sup>

<sup>&</sup>lt;sup>3</sup> USF/ICC Transformation Order.

<sup>&</sup>lt;sup>4</sup> See Connect America Fund (CAF) <a href="https://www.fcc.gov/general/connect-america-fund-caf">https://www.fcc.gov/general/connect-america-fund-caf</a>.

<sup>&</sup>lt;sup>5</sup> See generally Rural Digital Opportunity Fund; Connect America Fund, Order, 35 FCC Rcd 686 (2020) (Rural Digital Opportunity Fund Order).

<sup>&</sup>lt;sup>6</sup> See Connect America Fund; ETC Annual Reports and Certifications; Establishing Just and Reasonable Rates for Local Exchange Carriers; Developing a Unified Intercarrier Compensation Regime; WC Docket Nos. 10-90, 14-58, and 07-135, CC Docket No. 01-92; Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration, FCC 18-176 (rel. Dec. 12, 2018).

<sup>&</sup>lt;sup>7</sup> Connect America Fund et al., Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 10139, 10142, para. 6 (2016) (Alaska Plan Order).

As in the 2020 Report, all support dollar values in these tables reflect claims<sup>8</sup> as opposed to disbursements.<sup>9</sup> These claims are subject to true-ups. True-ups are reflected in the relevant support year, not in the year made. Data on changes in local exchange carriers and High-Cost ILEC support data by study area are available at <a href="http://www.fcc.gov/encyclopedia/neca-usac-data-0">http://www.fcc.gov/encyclopedia/neca-usac-data-0</a>. Please note that the information provided in this report is based upon the program rules through June 30, 2021.

<sup>&</sup>lt;sup>8</sup> A "claim" is the distribution of funds *in support of a specified time period*. These funds were distributed in that period and possibly a later time period. The disbursements in later time periods are the result of true-ups to resolve differences between initial payments and disbursements necessitated by revisions to supporting data made at that later date. Claims are positive values with the possible exceptions of CAF Intercarrier Compensation (CAF ICC) support and Connect America Cost Model (CACM) support. CAF ICC claims can be negative when a study area's actual access recovery charge revenues in the prior two years substantially exceed the forecasted amount. Some CACM initial claims were negative as a result of true-ups when Frozen High Cost support exceeded CACM support.

<sup>&</sup>lt;sup>9</sup> A "disbursement" is the distribution of funds in a specified time period. These funds were distributed in support of high-cost mechanisms in that period and possibly in support of earlier time periods. The disbursements in support of earlier time periods are the result of true-ups to resolve differences between initial payments and disbursements necessitated by revisions to supporting data. It is possible for disbursements to be negative, thus requiring the recipient to return dollars to the high-cost fund. Some negative disbursements are penalties (see the file "HC Penalties" in the Supplementary Material). Penalties are not included in claims. Because carriers chose ACAM II in the middle of 2019 but then received ACAM II support for the whole calendar year, these carriers' disbursement data for the first part of the year shows legacy support payments (i.e., HCLS, BLS and SVS), which were then offset against their ACAM payments for the same portion of the year in their August ACAM prior period adjustments.

Table 3.1 – High-Cost Support Fund Claim History (in Millions of Dollars)

| Year  | A-CAM / AK<br>Plan Carriers | Legacy<br>Carriers | Rate-of-Return<br>Carriers | Price Cap<br>Carriers | ILEC Total | Competitive<br>ETC Total | <b>Total Support</b> |
|-------|-----------------------------|--------------------|----------------------------|-----------------------|------------|--------------------------|----------------------|
| 2009  | \$ 0                        | \$ 1,850           | \$ 1,850                   | \$ 1,183              | \$ 3,033   | \$ 1,299                 | \$ 4,332             |
| 2010  | 0                           | 1,928              | 1,928                      | 1,108                 | 3,036      | 1,242                    | 4,278                |
| 2011  | 0                           | 1,957              | 1,957                      | 1,029                 | 2,986      | 1,156                    | 4,142                |
| 2012  | 0                           | 1,966              | 1,966                      | 1,197                 | 3,163      | 967                      | 4,130                |
| 2013  | 0                           | 2,019              | 2,019                      | 1,341                 | 3,360      | 782                      | 4,142                |
| 2014  | 0                           | 2,047              | 2,047                      | 1,115                 | 3,162      | 608                      | 3,769                |
| 2015  | 0                           | 2,059              | 2,059                      | 1,849                 | 3,908      | 615                      | 4,524                |
| 2016  | 0                           | 2,071              | 2,071                      | 1,848                 | 3,919      | 674                      | 4,593                |
| 2017  | 795                         | 1,614              | 2,409                      | 1,793                 | 4,201      | 645                      | 4,846                |
| 2018  | 784                         | 1,678              | 2,462                      | 1,736                 | 4,198      | 601                      | 4,800                |
| 2019  | 1,437                       | 1,265              | 2,702                      | 1,658                 | 4,360      | 620                      | 4,980                |
| 2020  | 1,419                       | 1,312              | 2,731                      | 1,615                 | 4,346      | 703                      | 5,049                |
| 2021* | 1,400                       | 1,392              | 2,792                      | 1,590                 | 4,382      | 689                      | 5,071                |

*Notes*: Details may not appear to add up to totals due to rounding. Data for 2012 - 2020 were updated to account for true-ups. A-CAM is an abbreviation for Alternative Connect America Model. ILEC is an abbreviation for Incumbent Local Exchange Carrier. Competitive ETC is an abbreviation for Competitive Eligible Telecommunication Carrier. Source: Universal Service Administrative Company filings to the FCC with prior-period adjustments through July 2021.

<sup>\*</sup> FCC Staff Estimate.

Table 3.2 – High-Cost Support Fund Claim History – Rate of Return (in Millions of Dollars)

| Year  | High-Cost<br>Loop Support | Safety Net<br>Additive<br>Support | Safety Valve<br>Support | Local<br>Switching<br>Support | CAF-ICC from (A-CAM / AK<br>Plan Carriers <sup>2</sup> | Legacy | Broadband<br>Loop Support <sup>1</sup> | Alternative<br>Connect<br>America Model | Alternative<br>Connect<br>America Model<br>II | Alaska<br>Plan | Total<br>Support |
|-------|---------------------------|-----------------------------------|-------------------------|-------------------------------|--|--------|--|---|---|----------------|------------------|
| 2009  | \$ 798                    | \$ 29                             | \$ 5                    | \$ 239                        | \$ 0   | \$ 0   | \$ 780                                 | \$ 0                                    | \$ 0  | \$ 0           | \$ 1,850         |
| 2010  | 817                       | 49                                | 6                       | 226                           | 0  | 0      | 830                                    | 0                                       | 0   | 0              | 1,928            |
| 2011  | 806                       | 65                                | 6                       | 218                           | 0  | 0      | 862                                    | 0                                       | 0   | 0              | 1,957            |
| 2012  | 791                       | 48                                | 6                       | 110                           | 0  | 169    | 842                                    | 0                                       | 0   | 0              | 1,966            |
| 2013  | 767                       | 31                                | 6                       | 0                             | 0  | 344    | 870                                    | 0                                       | 0   | 0              | 2,019            |
| 2014  | 746                       | 28                                | 5                       | 0                             | 0  | 359    | 909                                    | 0                                       | 0   | 0              | 2,047            |
| 2015  | 716                       | 20                                | 5                       | 0                             | 0  | 377    | 941                                    | 0                                       | 0   | 0              | 2,059            |
| 2016  | 691                       | 12                                | 5                       | 0                             | 0  | 395    | 968                                    | 0                                       | 0   | 0              | 2,071            |
| 2017  | 556                       | 4                                 | 5                       | 0                             | 149  | 244    | 806                                    | 591                                     | 0   | 54             | 2,409            |
| 2018  | 576                       | 0                                 | 5                       | 0                             | 146  | 244    | 853                                    | 584                                     | 0   | 54             | 2,462            |
| 2019  | 411                       | 0                                 | 2                       | 0                             | 218  | 171    | 682                                    | 643                                     | 521   | 54             | 2,702            |
| 2020  | 387                       | 0                                 | 1                       | 0                             | 214  | 171    | 753                                    | 637                                     | 514   | 54             | 2,731            |
| 2021* | 369                       | 0                                 | 1                       | 0                             | 205  | 165    | 855                                    | 631                                     | 511   | 54             | 2,792            |

<sup>&</sup>lt;sup>1</sup> Interstate Common Line Support was expanded to include standalone broadband in January 2017 and became Connect America Fund Broadband Loop Support (CAF BLS).

 $\it Note$ : Details may not appear to add up to totals due to rounding. Data for 2012 - 2020 were updated to account for true-ups.

Source: Universal Service Administrative Company filings to the FCC with prior-period adjustments through July 2021.

Intercarrier Compensation was divided into A-CAM/AK and Legacy categories.

<sup>\*</sup> FCC Staff Estimate.

Table 3.3 – High-Cost Support Fund Claim History – Price Cap (in Millions of Dollars)

| Year  | High-Cost<br>Loop<br>Support | Safety Net<br>Additive<br>Support | High-Cost<br>Model<br>Support | Interstate<br>Access<br>Support | Local<br>Switching<br>Support | Frozen<br>High-Cost<br>Support <sup>1</sup> | Intercarrier<br>Compensatio<br>n Support | Connect<br>America<br>Cost Model | Incremental<br>Support | Interstate<br>Common<br>Line<br>Support | CAF II<br>Auction | PR / USVI<br>Fund <sup>2</sup> | Total<br>Support |
|-------|------------------------------|-----------------------------------|-------------------------------|---------------------------------|-------------------------------|---|--|----------------------------------|------------------------|---|-------------------|--------------------------------|------------------|
| 2009  | \$ 209                       | \$ 9                              | \$ 169                        | \$ 456                          | \$ 50                         | \$ 0  | \$ 0                                     | \$ 0                             | \$ 0                   | \$ 290                                  | \$ 0              | \$ 0                           | \$ 1,183         |
| 2010  | 145                          | 11                                | 156                           | 455                             | 61                            | 0   | 0  | 0                                | 0                      | 280                                     | 0                 | 0                              | 1,108            |
| 2011  | 100                          | 11                                | 145                           | 441                             | 63                            | 0   | 0  | 0                                | 0                      | 270                                     | 0                 | 0                              | 1,029            |
| 2012  | 0                            | 0                                 | 0                             | 0                               | 0                             | 1,037                                       | 44                                       | 0                                | 112                    | 3                                       | 0                 | 0                              | 1,197            |
| 2013  | 0                            | 0                                 | 0                             | 0                               | 0                             | 1,034                                       | 87                                       | 0                                | 220                    | 0                                       | 0                 | 0                              | 1,341            |
| 2014  | 0                            | 0                                 | 0                             | 0                               | 0                             | 1,035                                       | 69                                       | 0                                | 11                     | 0                                       | 0                 | 0                              | 1,115            |
| 2015  | 0                            | 0                                 | 0                             | 0                               | 0                             | 641   | 49                                       | 1,159                            | 0                      | 0                                       | 0                 | 0                              | 1,849            |
| 2016  | 0                            | 0                                 | 0                             | 0                               | 0                             | 162   | 38                                       | 1,648                            | 0                      | 0                                       | 0                 | 0                              | 1,848            |
| 2017  | 0                            | 0                                 | 0                             | 0                               | 0                             | 173   | 30                                       | 1,590                            | 0                      | 0                                       | 0                 | 0                              | 1,793            |
| 2018  | 0                            | 0                                 | 0                             | 0                               | 0                             | 170   | 22                                       | 1,544                            | 0                      | 0                                       | 0                 | 0                              | 1,736            |
| 2019  | 0                            | 0                                 | 0                             | 0                               | 0                             | 122   | 15                                       | 1,518                            | 0                      | 0                                       | 3                 | 0                              | 1,658            |
| 2020  | 0                            | 0                                 | 0                             | 0                               | 0                             | 81  | 12                                       | 1,518                            | 0                      | 0                                       | 5                 | 0                              | 1,615            |
| 2021* | 0                            | 0                                 | 0                             | 0                               | 0                             | 56  | 12                                       | 1,514                            | 0                      | 0                                       | 5                 | 3                              | 1,590            |

<sup>&</sup>lt;sup>1</sup> 2017 Hurricane support for Puerto Rico and Virgin Islands is included in Frozen High-Cost Support.

This column includes the Bringing Puerto Rico Together (Uniendo a Puerto Rico) Fund and the Connect USVI Fund.

Note: Details may not appear to add up to totals due to rounding. Data for 2012-2020 were updated to account for true-ups. Source: Universal Service Administrative Company filings to the FCC with prior-period adjustments through July 2021.

<sup>\*</sup> FCC Staff Estimate.

Table 3.4 – High-Cost Support Fund Claim History – Competitive Eligible Telecommunications Carriers (in Millions of Dollars)

| Year  | High-Cost<br>Loop<br>Support | Safety Net<br>Additive<br>Support | Safety<br>Valve<br>Support | High-Cost<br>Model | Interstate<br>Access<br>Support | Local<br>Switching<br>Support | Frozen<br>High-Cost<br>Support <sup>1</sup> | Remote<br>Alaska<br>Support | Mobility<br>Fund Phase I<br>Support | Rural<br>Broadband<br>Experiments | Interstate<br>Common<br>Line<br>Support | Alaska<br>Plan | CAF II<br>Auction | PR /<br>USVI<br>Fund <sup>2</sup> | Total Support |
|-------|------------------------------|-----------------------------------|----------------------------|--------------------|---------------------------------|-------------------------------|---|-----------------------------|-------------------------------------|-----------------------------------|---|----------------|-------------------|-----------------------------------|---------------|
| 2009  | \$ 391                       | \$ 14                             | \$ 0                       | \$ 159             | \$ 110                          | \$ 100                        | \$ 0  | \$ 0                        | \$ 0                                | \$ 0                              | \$ 524                                  | \$ 0           | \$ 0              | \$ 0                              | \$ 1,299      |
| 2010  | 358                          | 17                                | 1                          | 155                | 94                              | 95                            | 0   | 0                           | 0                                   | 0                                 | 521                                     | 0              | 0                 | 0                                 | 1,242         |
| 2011  | 307                          | 21                                | 2                          | 146                | 81                              | 90                            | 0   | 0                           | 0                                   | 0                                 | 508                                     | 0              | 0                 | 0                                 | 1,156         |
| 2012  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 889   | 78                          | 0                                   | 0                                 | 0                                       | 0              | 0                 | 0                                 | 967           |
| 2013  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 629   | 79                          | 74                                  | 0                                 | 0                                       | 0              | 0                 | 0                                 | 782           |
| 2014  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 525   | 79                          | 4                                   | 0                                 | 0                                       | 0              | 0                 | 0                                 | 608           |
| 2015  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 513   | 78                          | 16                                  | 8                                 | 0                                       | 0              | 0                 | 0                                 | 615           |
| 2016  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 508   | 78                          | 85                                  | 3                                 | 0                                       | 0              | 0                 | 0                                 | 674           |
| 2017  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 537   | 0                           | 31                                  | 3                                 | 0                                       | 74             | 0                 | 0                                 | 645           |
| 2018  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 521   | 0                           | 3                                   | 3                                 | 0                                       | 74             | 0                 | 0                                 | 601           |
| 2019  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 471   | 0                           | 7                                   | 3                                 | 0                                       | 74             | 65                | 0                                 | 620           |
| 2020  | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 415   | 0                           | 8                                   | 3                                 | 0                                       | 74             | 147               | 56                                | 703           |
| 2021* | 0                            | 0                                 | 0                          | 0                  | 0                               | 0                             | 370   | 0                           | 0                                   | 3                                 | 0                                       | 74             | 148               | 95                                | 689           |

<sup>&</sup>lt;sup>1</sup> 2017 Hurricane support for Puerto Rico and Virgin Islands is included in Frozen High-Cost Support.

This column includes the Bringing Puerto Rico Together (Uniendo a Puerto Rico) Fund and the Connect USVI Fund.

Note: Details may not appear to add up to totals due to rounding. Data for 2012-2020 were updated to account for true-ups. Source: Universal Service Administrative Company filings to the FCC with prior-period adjustments through July 2021.

<sup>\*</sup> FCC Staff Estimate.

Table 3.5 – High-Cost Support Fund Claims – States: 2020 (in Thousands of Dollars)

| State                    | Rate-of-Return<br>Carriers | Price-Cap Carriers | ILEC<br>Total | CETC<br>Total | Total<br>Support | CETC<br>Share |
|--------------------------|----------------------------|--------------------|---------------|---------------|------------------|---------------|
| Alabama                  | \$ 42,326                  | \$ 43,961          | \$ 86,287     | \$ 5,477      | \$ 91,764        | 6 %           |
| Alaska                   | 74,914                     | 19,694             | 94,608        | 74,027        | 168,635          | 44            |
| American Samoa           | 1,816                      | 0                  | 1,816         | 1,619         | 3,435            | 47            |
| Arizona                  | 49,544                     | 23,370             | 72,914        | 8,095         | 81,009           | 10            |
| Arkansas                 | 57,139                     | 54,276             | 111,415       | 8,153         | 119,567          | 7             |
| California               | 46,468                     | 98,335             | 144,803       | 14,915        | 159,718          | 9             |
| Colorado                 | 29,595                     | 26,680             | 56,275        | 7,596         | 63,872           | 12            |
| Connecticut              | 0                          | 435                | 435           | 0             | 435              | 0             |
| Delaware                 | 0                          | 164                | 164           | 119           | 282              | 42            |
| Florida                  | 8,078                      | 29,853             | 37,931        | 3,619         | 41,550           | 9             |
| Georgia                  | 68,760                     | 50,859             | 119,618       | 867           | 120,485          | 1             |
| Guam                     | 6,780                      | 0                  | 6,780         | 5,212         | 11,992           | 43            |
| Hawaii                   | 0                          | 6,240              | 6,240         | 0             | 6,240            | 0             |
| Idaho                    | 39,779                     | 11,505             | 51,284        | 4,641         | 55,924           | 8             |
| Illinois                 | 64,543                     | 50,569             | 115,112       | 18,293        | 133,405          | 14            |
| Indiana                  | 71,686                     | 51,128             | 122,815       | 2,823         | 125,638          | 2             |
| Iowa                     | 139,704                    | 53,987             | 193,691       | 32,324        | 226,015          | 14            |
| Kansas                   | 112,870                    | 35,638             | 148,508       | 25,061        | 173,569          | 14            |
| Kentucky                 | 85,057                     | 54,677             | 139,734       | 17,194        | 156,928          | 11            |
| Louisiana                | 20,823                     | 37,379             | 58,202        | 24,637        | 82,838           | 30            |
| Maine                    | 14,750                     | 13,564             | 28,314        | 7,132         | 35,446           | 20            |
| Maryland                 | 1,271                      | 1,641              | 2,912         | 7,132         | 3,628            | 20            |
| Massachusetts            | 769                        | 901                | 1,671         | 1,115         | 2,786            | 40            |
| Michigan                 | 51,625                     | 60,513             | 112,137       | 7,810         | 119,947          | 7             |
| Minnesota                | 154,429                    | 87,843             | 242,272       | 5,558         | 247,830          | 2             |
|                          | 25,397                     | 51,617             | 77,014        | 87,505        | 164,520          | 53            |
| Mississippi<br>Missouri  | 85,245                     | 91,570             | 176,814       | 35,368        | 212,182          | 17            |
| Montana                  | 120,187                    | 16,310             | 136,497       | 5,180         | 141,678          | 4             |
| Nebraska                 | 84,680                     | 23,216             | 107,896       | 14,944        | 122,840          | 12            |
|                          | · ·                        |                    |               | · ·           | · ·              | 19            |
| Nevada                   | 14,827                     | 2,452              | 17,279        | 4,171         | 21,450           | 19            |
| New Hampshire            | 7,269                      | 4,377              | 11,646        | 131           | 11,777           |               |
| New Jersey               | 577                        | 613                | 1,190         | 0             | 1,190            | 0             |
| New Mexico               | 66,842                     | 15,940             | 82,783        | 5,081         | 87,864           | 6             |
| New York                 | 25,966                     | 26,242             | 52,208        | 5,926         | 58,134           | 10            |
| North Carolina           | 55,106                     | 19,055             | 74,161        | 1,857         | 76,019           | 2             |
| North Dakota             | 145,777                    | 5,657              | 151,434       | 25,842        | 177,275          | 15            |
| Northern Mariana Islands | 0                          | 2,627              | 2,627         | 581           | 3,209            | 18            |
| Ohio                     | 24,197                     | 59,148             | 83,345        | 1,313         | 84,658           | 2             |
| Oklahoma                 | 117,832                    | 8,141              | 125,973       | 37,228        | 163,201          | 23            |
| Oregon                   | 52,110                     | 21,657             | 73,767        | 12,008        | 85,775           | 14            |
| Pennsylvania             | 18,125                     | 35,653             | 53,779        | 4,622         | 58,401           | 8             |
| Puerto Rico              | 0                          | 36,054             | 36,054        | 83,782        | 119,835          | 70            |
| Rhode Island             | 0                          | 67                 | 67            | 0             | 67               | 0             |
| South Carolina           | 99,804                     | 16,287             | 116,090       | 1,602         | 117,692          | 1             |
| South Dakota             | 115,075                    | 9,117              | 124,192       | 2,091         | 126,284          | 2             |
| Tennessee                | 69,875                     | 29,927             | 99,802        | 1,439         | 101,241          | 1             |
| Texas                    | 186,303                    | 93,132             | 279,435       | 17,314        | 296,749          | 6             |
| Utah                     | 38,866                     | 4,442              | 43,308        | 721           | 44,029           | 2             |
| Vermont                  | 13,893                     | 8,789              | 22,682        | 73            | 22,755           | 0             |
| Virgin Islands           | 0                          | 16,361             | 16,361        | 977           | 17,338           | 6             |
| Virginia                 | 35,207                     | 32,883             | 68,090        | 11,949        | 80,039           | 15            |
| Washington               | 31,372                     | 35,971             | 67,343        | 22,627        | 89,970           | 25            |
| West Virginia            | 12,470                     | 38,068             | 50,538        | 8,805         | 59,344           | 15            |
| Wisconsin                | 110,598                    | 95,439             | 206,037       | 19,443        | 225,480          | 9             |
| Wyoming                  | 30,635                     | 1,213              | 31,848        | 13,318        | 45,166           | 29            |
| United States            | \$2,730,960                | \$1,615,237        | \$4,346,197   | \$702,903     | \$5,049,100      | 14 %          |

Notes: Details may not appear to add up to totals due to rounding.

Source: Universal Service Administrative Company filings to the FCC with prior-period adjustments through July 2021.

Table 3.6 – Annual High-Cost Fund Support Claims – Affiliates: 2018 – 2020 (in Millions of Dollars)

|      |  |        |        |        |          | Competitive              |
|------|--|--------|--------|--------|----------|--------------------------|
| Rank | Affiliate's Name <sup>1</sup>                    | 2018   | 2019   | 2020   | Total    | ETC's Share <sup>2</sup> |
| 1    | AT&T Inc.  | \$ 594 | \$ 576 | \$ 575 | \$ 1,745 | 26 %                     |
| 2    | Lumen Technologies, Inc.                         | 530    | 516    | 504    | 1,550    | 0                        |
| 3    | Frontier Communications Corporation              | 339    | 328    | 322    | 989      | 0                        |
| 4    | Telephone and Data Systems, Inc.                 | 208    | 211    | 211    | 629      | 46                       |
| 5    | Windstream Holdings, Inc.                        | 190    | 180    | 175    | 546      | 0                        |
| 6    | América Móvil                                    | 85     | 63     | 62     | 210      | 41                       |
| 7    | Verizon Communications Inc.                      | 80     | 70     | 51     | 201      | 33                       |
| 8    | GCI Holdings LLC                                 | 68     | 68     | 61     | 197      | 91                       |
| 9    | Consolidated Communications, Inc.                | 67     | 60     | 59     | 186      | 0                        |
| 10   | T elapex, Inc. <sup>3</sup>                      | 54     | 55     | 55     | 164      | 84                       |
| 11   | Golden West Telecommunications Cooperative, Inc. | 34     | 38     | 37     | 109      | 0                        |
| 12   | Pioneer Telephone Cooperative (OK)               | 34     | 37     | 35     | 106      | 25                       |
| 13   | T-Mobile USA, Inc.                               | 40     | 30     | 33     | 104      | 100                      |
| 14   | LICT Corporation                                 | 30     | 36     | 35     | 101      | 0                        |
| 15   | Rural Telephone Service/Golden Belt              | 33     | 30     | 30     | 93       | 37                       |

This column refers to "affiliate name" rather than "holding company" to include all entities under common ownership or control, to the extent this information is readily available to the Commission. In most cases, the "affiliate name" is reported by the entity or entities in FCC Form 477.

Source: Universal Service Administrative Company.

In the *USF/ICC Transformation Order*, the Commission eliminated the rule providing identical support to competitive ETCs, determining the rule did not provide an "appropriate level of support for the efficient deployment of mobile services in areas that do not support a private business case for mobile voice and broadband." *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17666, 17851-59, para. 502 (2011), *aff'd In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014). The Commission, however, transitioned the elimination of that support over five years, beginning on July 1, 2012. *See USF/ICC Transformation Order*, 26 FCC Rcd at 17853, para. 513. This phase down of support for competitive ETCs was halted at 40 percent on June 30, 2014 under the terms adopted in the *USF/ICC Transformation Order* because the Mobility Fund Phase II was not yet operational. *See id.* at 17832, para. 519. The Commission established the 5G Fund as the next phase of supporting mobile broadband in harder to serve areas. *See Establishing a 5G Fund for Rural America*, Report and Order. 35 FCC Rcd 12174 (2020).

<sup>&</sup>lt;sup>3</sup> Telapex, Inc. owns C Spire Wireless.

Table 3.7 – High-Cost Support Fund Claims – Affiliates: 2020 (in Millions of Dollars)

| Rank | Affiliate's Name <sup>1</sup>                    | Rate-of-Return<br>Carriers | Price-Cap<br>Carriers | ILEC Support | Competive ETC<br>Support | Total Support | Competitive<br>ETC's Share <sup>2</sup> |
|------|--|----------------------------|-----------------------|--------------|--------------------------|---------------|---|
| 1    | AT&T Inc.  | \$ 0                       | \$ 428                | \$ 428       | \$ 148                   | \$ 575        | 26 %                                    |
| 2    | Lumen Technologies, Inc.                         | 0                          | 504                   | 504          | 0                        | 504           | 0                                       |
| 3    | Frontier Communications Corporation              | 0                          | 322                   | 322          | 0                        | 322           | 0                                       |
| 4    | Telephone and Data Systems, Inc.                 | 114                        | 0                     | 114          | 98                       | 211           | 46                                      |
| 5    | Windstream Holdings, Inc.                        | 0                          | 175                   | 175          | 0                        | 175           | 0                                       |
| 6    | América Móvil                                    | 0                          | 36                    | 36           | 26                       | 62            | 42                                      |
| 7    | GCI Holdings LLC                                 | 6                          | 0                     | 6            | 55                       | 61            | 91                                      |
| 8    | Consolidated Communications, Inc.                | 0                          | 59                    | 59           | 0                        | 59            | 0                                       |
| 9    | Telapex, Inc.                                    | 9                          | 0                     | 9            | 46                       | 55            | 84                                      |
| 10   | Verizon Communications Inc.                      | 0                          | 29                    | 29           | 22                       | 51            | 43                                      |
| 11   | Golden West Telecommunications Cooperative, Inc. | 37                         | 0                     | 37           | 0                        | 37            | 0                                       |
| 12   | LICT Corporation                                 | 35                         | 0                     | 35           | 0                        | 35            | 0                                       |
| 13   | Pioneer Telephone Cooperative (OK)               | 26                         | 0                     | 26           | 9                        | 35            | 25                                      |
| 14   | T-Mobile USA, Inc.                               | 0                          | 0                     | 0            | 33                       | 33            | 100                                     |
| 15   | Hargray Communications Group, Inc.               | 30                         | 0                     | 30           | 0                        | 30            | 0                                       |
| 16   | Rural Telephone Service/Golden Belt              | 18                         | 0                     | 18           | 11                       | 30            | 38                                      |
| 17   | Triangle Telephone Cooperative Assn., Inc.       | 29                         | 0                     | 29           | 0                        | 29            | 0                                       |
| 18   | AMG Technology Investment Group LLC              | 0                          | 0                     | 0            | 28                       | 28            | 100                                     |
| 19   | Arvig Enterprises, Inc.                          | 28                         | 0                     | 28           | 0                        | 28            | 0                                       |
| 20   | 3 Rivers Telephone Cooperative, Inc.             | 28                         | 0                     | 28           | 0                        | 28            | 0                                       |
| 21   | ATN International, Inc.                          | 0                          | 16                    | 16           | 10                       | 27            | 38                                      |
| 22   | Great Plains Communications, Inc.                | 24                         | 0                     | 24           | 0                        | 24            | 0                                       |
| 23   | Range Telephone Cooperative, Inc.                | 23                         | 0                     | 23           | 0                        | 23            | 0                                       |
| 24   | ENMR Telephone Cooperative, Inc.                 | 22                         | 0                     | 22           | 0                        | 22            | 0                                       |
| 25   | Wisper ISP Inc.                                  | 0                          | 0                     | 0            | 22                       | 22            | 100                                     |

This column refers to "affiliate name" rather than "holding company" to include all entities under common ownership or control, to the extent this information is readily available to the Commission. In most cases, the "affiliate name" is reported by the entity or entities in FCC Form 477.

Notes: Details may not add up due to rounding.

Source: Universal Service Administrative Company filings to the FCC with prior-period adjustments through July 2021.

<sup>&</sup>lt;sup>2</sup> See Table 3.6 n.2.



# **Section 4 – E-Rate (Schools and Libraries)**

#### Overview - Schools and Libraries Program

The Schools and Libraries universal service support program, commonly known as the E-Rate program, helps schools and libraries obtain affordable broadband Internet access, internal network connections, and telecommunications services.

Eligible schools, school districts, and libraries may apply individually or as part of a consortium. Funding may be requested under two categories of eligible services: category one that provide services to a school or library (e.g., data transmission services and Internet access), and category two services that deliver Internet access within schools and libraries (e.g., internal connections, basic maintenance of internal connections, and managed internal broadband services). Discounts for support depend on the level of poverty, as calculated by eligibility for a free or reduced-price lunch or other federally approved alternative mechanism, and whether the school or library is located in an urban or rural area. The discounts range from 20% to 90% of the costs of eligible services. E-Rate program funding is based on demand up to an annual Commission-established cap, which is \$4.277 billion for funding year 2021 and is adjusted annually for inflation.

The E-Rate program is administered by the Universal Service Administrative Company (USAC) under the direction of the Federal Communications Commission (FCC). Specifically, USAC is responsible for processing the applications for support, confirming eligibility, and reimbursing service providers and eligible schools and libraries for the discounted services. USAC also verifies that the applicants and service providers comply with the E-Rate rules and procedures established by the FCC.

Additional information about the E-Rate program can be found on the Commission's website at <a href="https://www.fcc.gov/general/e-rate-schools-libraries-usf-program">https://www.fcc.gov/general/e-rate-schools-libraries-usf-program</a> and on USAC's website at <a href="https://www.usac.org/e-rate//">https://www.usac.org/e-rate//</a>.

Table 4.1 – Schools and Libraries Funding Commitments and Disbursements by Applicant Type and Year (in Thousands of Dollars)

|      |             | F                      | unding Comr | nitments    |                       |           | Funding Disbursements |                        |          |             |                       |           |  |  |
|------|-------------|------------------------|-------------|-------------|-----------------------|-----------|-----------------------|------------------------|----------|-------------|-----------------------|-----------|--|--|
|      | Total       |                        |             | School      | Statewide             | Other     | Total                 |                        |          | School      | Statewide             | Other     |  |  |
| Year | Commitments | Libraries <sup>1</sup> | Schools     | Districts   | Contract <sup>2</sup> | Consortia | Disbursements         | Libraries <sup>1</sup> | Schools  | Districts   | Contract <sup>2</sup> | Consortia |  |  |
| 1998 | \$1,698,767 | \$65,987               | \$110,684   | \$1,288,196 | \$0                   | \$233,900 | \$1,398,979           | \$49,883               | \$83,265 | \$1,069,738 | \$0                   | \$196,092 |  |  |
| 1999 | 2,147,065   | 66,163                 | 180,734     | 1,597,596   | -                     | 302,572   | 1,649,997             | 47,457                 | 140,129  | 1,265,888   | -                     | 196,523   |  |  |
| 2000 | 2,078,426   | 65,879                 | 110,783     | 1,691,954   | -                     | 209,810   | 1,646,940             | 43,544                 | 88,488   | 1,384,086   | -                     | 130,821   |  |  |
| 2001 | 2,169,951   | 57,819                 | 164,445     | 1,733,342   | -                     | 214,345   | 1,676,766             | 42,052                 | 117,472  | 1,381,576   | -                     | 135,666   |  |  |
| 2002 | 2,107,116   | 62,925                 | 164,100     | 1,630,156   | -                     | 249,935   | 1,594,197             | 42,697                 | 106,179  | 1,283,148   | -                     | 162,174   |  |  |
| 2003 | 2,518,579   | 63,302                 | 199,222     | 1,997,834   | -                     | 258,220   | 1,937,512             | 44,467                 | 136,104  | 1,584,466   | -                     | 172,475   |  |  |
| 2004 | 2,029,610   | 54,291                 | 158,604     | 1,566,959   | -                     | 249,756   | 1,535,242             | 39,775                 | 107,117  | 1,208,830   | -                     | 179,520   |  |  |
| 2005 | 2,007,865   | 54,498                 | 152,493     | 1,586,166   | -                     | 214,708   | 1,623,477             | 48,598                 | 111,789  | 1,285,250   | -                     | 177,840   |  |  |
| 2006 | 1,948,787   | 59,711                 | 129,351     | 1,499,379   | -                     | 260,346   | 1,566,737             | 46,138                 | 96,167   | 1,220,845   | -                     | 203,587   |  |  |
| 2007 | 2,356,517   | 60,628                 | 174,679     | 1,877,629   | -                     | 243,582   | 1,952,986             | 47,964                 | 135,868  | 1,560,887   | -                     | 208,267   |  |  |
| 2008 | 2,373,269   | 75,771                 | 150,094     | 1,888,388   | -                     | 259,017   | 1,926,495             | 58,090                 | 114,132  | 1,532,837   | -                     | 221,436   |  |  |
| 2009 | 2,806,722   | 84,697                 | 195,343     | 2,261,858   | -                     | 264,825   | 2,332,977             | 69,182                 | 154,079  | 1,883,228   | -                     | 226,488   |  |  |
| 2010 | 2,997,610   | 91,214                 | 211,042     | 2,411,399   | -                     | 283,955   | 2,449,739             | 71,872                 | 157,065  | 1,980,685   | -                     | 240,117   |  |  |
| 2011 | 2,663,492   | 94,687                 | 217,866     | 2,037,230   | -                     | 313,708   | 2,151,043             | 73,114                 | 162,122  | 1,666,878   | -                     | 248,930   |  |  |
| 2012 | 2,964,093   | 96,085                 | 287,705     | 2,279,865   | 12,130                | 288,308   | 2,372,005             | 77,657                 | 206,242  | 1,841,530   | 8,790                 | 237,787   |  |  |
| 2013 | 2,199,796   | 91,579                 | 134,919     | 1,668,201   | 20,209                | 284,887   | 1,752,978             | 75,371                 | 97,619   | 1,341,854   | 10,809                | 227,325   |  |  |
| 2014 | 2,344,859   | 93,490                 | 157,871     | 1,773,418   | 38,370                | 281,709   | 1,872,754             | 78,934                 | 115,037  | 1,428,536   | 27,445                | 222,802   |  |  |
| 2015 | 3,214,366   | 108,287                | 166,780     | 2,593,242   | 24,848                | 321,210   | 2,790,775             | 90,786                 | 132,040  | 2,277,559   | 23,751                | 266,639   |  |  |
| 2016 | 2,769,363   | 98,528                 | 119,901     | 2,183,594   | -                     | 367,340   | 2,346,784             | 83,580                 | 95,837   | 1,884,836   | -                     | 282,530   |  |  |
| 2017 | 2,367,553   | 86,332                 | 112,385     | 1,830,904   | -                     | 337,932   | 1,985,927             | 73,399                 | 88,877   | 1,563,338   | -                     | 260,312   |  |  |
| 2018 | 2,292,263   | 81,565                 | 104,558     | 1,658,215   | _                     | 447,925   | 1,971,532             | 64,855                 | 82,507   | 1,454,593   | -                     | 369,577   |  |  |
| 2019 | 2,367,937   | 87,156                 | 110,912     | 1,852,526   | -                     | 317,344   | 1,831,908             | 69,463                 | 83,397   | 1,458,352   | -                     | 220,697   |  |  |
| 2020 | 2,358,325   | 91,139                 | 120,938     | 1,849,648   | -                     | 296,600   | 1,064,788             | 41,041                 | 63,661   | 887,418     | -                     | 72,668    |  |  |

1 Starting in funding year 2016, Libraries include both Library and Library System applicants.

Starting January 2011, applicants could designate their consortium as a statewide entity if the application encompassed all public schools, private schools and/or all public libraries in the state. See <a href="http://hraunfoss.fcc.gov/edocs\_public/attachmatch/DA-10-2218A1.pdf">http://hraunfoss.fcc.gov/edocs\_public/attachmatch/DA-10-2218A1.pdf</a>. In 2016, applicants filing as a consortium, school district, and library system could designate their sub-type as a statewide entity. These applicant's commitments and disbursements are included within their primary applicant type column and are not included in the Statewide Contract column.

Notes: Activity through June 30, 2021. Funding year 2021 commitment and disbursement information have not been displayed because only a small fraction of commitments (and no disbursements) have been issued for this funding year. A substantial amount of commitments and disbursements for funding year 2021 will be made. Also, because of the appeals process, certain funding commitments and disbursements may be issued after the end of the program year. Disbursements may also continue beyond the end of the program year in the event of delayed internal connections installation. Other adjustments and corrections may also be made as part of other post-commitment reviews and audits. Funds by service type can be found in the Supplementary Material file "SL Funds - by Service Type, State, and Funding Year" available at http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports.

Source: Universal Service Administrative Company

Table 4.2 – Schools and Libraries Funding Commitments and Disbursements from Program Inception through June 30, 2021 by State and Applicant Type

(in Thousands of Dollars)

|                                | Library/Librar  | y Consortium    | Scho              | ools            | School I          | Districts         | Statewide | Contracts | Other Co          | onsortium        | То                 | tals               |
|--------------------------------|-----------------|-----------------|-------------------|-----------------|-------------------|-------------------|-----------|-----------|-------------------|------------------|--------------------|--------------------|
|                                | Funds           | Funds           | Funds             | Funds           | Funds             | Funds             | Funds     | Funds     | Funds             | Funds            | Funds              | Funds              |
| State/Territory                | Committed       | Disbursed       | Committed         | Disbursed       | Committed         | Disbursed         | Committed | Disbursed | Committed         | Disbursed        | Committed          | Disbursed          |
| Alabama                        | \$16,577        | \$13,018        | \$21,930          | \$16,100        | \$740,173         | \$625,723         | \$86      | \$1       | \$165,638         | \$115,933        | \$944,404          | \$770,775          |
| Alaska                         | 14,179          | 10,955          | 6,335             | 4,987           | 1,059,909         | 831,377           | ф80<br>-  | φ1<br>-   | 36,830            | 27,715           | 1,117,253          | 875,035            |
| American Samoa                 | 14,175          | -               | 0,333             | -,707           | 7,985             | 5,073             | _         | _         | 38,344            | 31,121           | 46,330             | 36,194             |
| Arizona                        | 32,113          | 31,591          | 185,826           | 125,802         | 1,208,225         | 898,839           |           |           | 149,225           | 59,205           | 1,575,389          | 1,115,437          |
| Arkansas                       | 11,731          | 9,559           | 9,548             | 7,876           | 353,472           | 268,526           | 25,836    | 17,082    | 225,256           | 129,125          | 625,843            | 432,167            |
| California                     | 149,514         | 103,547         | 359,309           | 249,010         | 7,144,141         | 5,395,593         | 106       | 51        | 421,493           | 280,395          | 8,074,563          | 6,028,597          |
| Colorado                       | 20,256          | 14,976          | 26,296            | 19,126          | 492,021           | 389,613           | -         | _         | 37,085            | 25,599           | 575,659            | 449,314            |
| Connecticut                    | 9,125           | 6,321           | 56,497            | 39,922          | 367,697           | 289,771           | _         | _         | 119,373           | 100,176          | 552,692            | 436,190            |
| Delaware                       | 1,387           | 1,185           | 4,307             | 3,107           | 28,444            | 24,839            | 2,246     | 2,246     | 36,496            | 24,833           | 72,880             | 56,210             |
| District of Columbia           | 13,424          | 9,618           | 34,238            | 21,847          | 203,902           | 138,782           | _         | _         | 18,847            | 8,599            | 270,410            | 178,846            |
| Florida                        | 76,674          | 59,069          | 204,493           | 147,267         | 1,599,838         | 1,309,791         | -         | -         | 133,531           | 106,004          | 2,014,536          | 1,622,131          |
| Georgia                        | 113,377         | 94,919          | 42,860            | 34,262          | 1,436,910         | 1,195,626         | 4,411     | 4,190     | 202,671           | 178,943          | 1,800,229          | 1,507,940          |
| Guam                           | 188             | 77              | 304               | 140             | 31,048            | 22,513            | -         | -         | _                 | _                | 31,541             | 22,730             |
| Hawaii                         | 6,046           | 1,594           | 62,329            | 32,065          | 78,052            | 48,547            | 3,128     | 2,381     | 1,223             | 834              | 150,778            | 85,421             |
| Idaho                          | 7,406           | 5,915           | 11,414            | 7,535           | 170,158           | 133,293           | -         | -         | 1,510             | 13,956           | 190,488            | 160,699            |
| Illinois                       | 51,384          | 38,325          | 160,119           | 119,075         | 2,103,916         | 1,614,936         | -         | -         | 84,513            | 59,252           | 2,399,932          | 1,831,588          |
| Indiana                        | 92,061          | 69,144          | 48,726            | 35,395          | 723,341           | 570,910           | -         | -         | 97,995            | 45,592           | 962,124            | 721,042            |
| Iowa                           | 5,337           | 3,609           | 18,330            | 13,462          | 235,714           | 179,581           | -         | -         | 90,536            | 77,770           | 349,917            | 274,422            |
| Kansas                         | 15,758          | 12,943          | 12,249            | 8,997           | 388,366           | 307,288           | -         | -         | 24,673            | 19,876           | 441,047            | 349,103            |
| Kentucky                       | 27,787          | 21,645          | 9,281             | 6,428           | 691,295           | 528,772           | -         | -         | 163,614           | 122,777          | 891,976            | 679,622            |
| Louisiana                      | 86,892          | 71,518          | 71,212            | 51,418          | 959,072           | 786,031           | -         | -         | 35,193            | 26,259           | 1,152,369          | 935,225            |
| Maine                          | 1,686           | 1,246           | 16,667            | 12,250          | 75,701            | 54,907            | -         | -         | 80,347            | 72,238           | 174,401            | 140,641            |
| Maryland                       | 20,426          | 15,317          | 35,125            | 23,845          | 477,533           | 356,905           | -         | -         | 36,165            | 26,432           | 569,250            | 422,499            |
| Massachusetts                  | 43,458          | 30,575          | 81,825            | 60,098          | 604,123           | 483,153           | 11        | -         | 60,190            | 33,625           | 789,606            | 607,452            |
| Michigan                       | 52,802          | 40,807          | 79,222            | 53,450          | 994,622           | 755,248           | -         | -         | 204,993           | 160,745          | 1,331,639          | 1,010,250          |
| Minnesota                      | 35,687          | 29,415          | 58,371            | 39,426          | 397,958           | 308,744           | -         | -         | 164,196           | 143,292          | 656,212            | 520,878            |
| Mississippi                    | 64,393          | 34,562          | 21,502            | 15,585          | 572,211           | 441,750           | 144       | 105       | 120,974           | 88,223           | 779,225            | 580,225            |
| Missouri                       | 27,959          | 23,570          | 53,443            | 39,557          | 654,546           | 516,048           | -         | -         | 231,879           | 171,822          | 967,827            | 750,997            |
| Montana                        | 1,820           | 1,275           | 5,933             | 4,252           | 106,249           | 86,592            | -         | -         | 1,161             | 925              | 115,163            | 93,043             |
| Nebraska                       | 5,492           | 4,225           | 10,184            | 8,020           | 166,885           | 144,463           | -         | -         | 40,422            | 35,323           | 222,983            | 192,031            |
| Nevada                         | 9,423           | 5,597           | 11,599            | 7,758           | 159,726           | 114,145           | -         | -         | 349               | 343              | 181,097            | 127,843            |
| New Hampshire                  | 395             | 220             | 9,159             | 6,426           | 58,811            | 42,716            | -         | -         | 2,259             | 1,752            | 70,624             | 51,114             |
| New Jersey                     | 38,732          | 27,771          | 160,597           | 113,132         | 1,191,071         | 884,660           | -         | -         | 22,323            | 15,660           | 1,412,723          | 1,041,223          |
| New Mexico                     | 9,188           | 5,359           | 91,727            | 63,945          | 647,204           | 510,419           | -         | -         | 189,602           | 100,438          | 937,721            | 680,162            |
| New York                       | 232,033         | 167,222         | 663,127           | 487,282         | 2,913,291         | 2,305,267         | -         | -         | 703,065           | 525,910          | 4,511,516          | 3,485,681          |
| North Carolina                 | 41,135          | 33,810          | 57,081            | 43,906          | 1,288,610         | 1,081,202         | 23,594    | 22,755    | 126,171           | 92,138           | 1,536,591          | 1,273,811          |
| North Dakota                   | 206             | 157             | 10,325            | 7,824           | 35,204            | 26,786            | -         | -         | 51,231            | 42,226           | 96,965             | 76,992             |
| Northern Mariana Isl.          | 282             | 205             | 258               | 201             | 20,956            | 17,392            | -         | -         | -                 | -                | 21,496             | 17,798             |
| Ohio                           | 73,550          | 59,099          | 181,955           | 133,082         | 1,428,773         | 1,139,539         | -         | -         | 102,814           | 85,482           | 1,787,092          | 1,417,202          |
| Oklahoma                       | 53,207          | 43,890          | 52,968            | 38,006          | 1,081,306         | 863,258           | -         | -         | 14,715            | 5,876            | 1,202,196          | 951,030            |
| Oregon                         | 7,988           | 5,624           | 14,124            | 10,247          | 324,851           | 266,251           | -         | -         | 54,925            | 35,345           | 401,888            | 317,467            |
| Pennsylvania                   | 57,454          | 47,325          | 203,805           | 140,142         | 1,239,216         | 1,032,817         | -         | -         | 219,438           | 185,484          | 1,719,913          | 1,405,768          |
| Puerto Rico                    | 97,838<br>2,363 | 57,432<br>1,988 | 122,579<br>11,324 | 85,585<br>8,363 | 322,047<br>89,520 | 256,083<br>69,931 | 19        | -<br>19   | 120,210<br>53,742 | 61,646<br>50,471 | 662,675<br>156,968 | 460,746            |
| Rhode Island<br>South Carolina | 2,363<br>10,499 | 7,871           | 29,932            | 19,663          | 592,938           | 465,326           | 19        | 19        | 359,678           | 309,555          | 993,047            | 130,771<br>802,415 |
| South Carolina<br>South Dakota | 10,499          | 355             | 29,932            | 19,663          | 592,938<br>56,742 | 465,326           | 2,745     | 2,553     | 359,678<br>47,822 | 309,555          | 132,331            | 98,022             |
| Tennessee                      | 25,388          | 18,425          | 22,979            | 17,861          | 1,183,460         | 860,784           | 2,143     | 2,333     | 244,002           | 201,519          | 1,475,829          | 1,098,589          |
| Texas                          | 69,893          | 48,010          | 204,026           | 155,237         | 4,965,532         | 3,949,367         |           | -         | 376,272           | 304,120          | 5,615,722          | 4,456,733          |
| Utah                           | 2,744           | 1,510           | 5,554             | 3,654           | 119,547           | 97,153            |           | -         | 338,084           | 204,630          | 465,928            | 306,947            |
| Vermont                        | 1,121           | 689             | 16,409            | 10,861          | 48,949            | 36,022            | _         | -         | 2,824             | 2,205            | 69,303             | 49,778             |
| Virgin Islands                 | 553             | 298             | 15,319            | 11,675          | 10,665            | 9,412             | 3,429     | 3,044     | 66,300            | 59,266           | 96,266             | 83,695             |
| Virginia                       | 43,165          | 34,677          | 30,765            | 24,520          | 753,589           | 622,383           | -         | -         | 16,277            | 14,616           | 843,796            | 696,196            |
| Washington                     | 45,714          | 34,752          | 22,918            | 17,324          | 572,296           | 434,650           | 78        | 78        | 113,561           | 86,182           | 754,567            | 572,987            |
| West Virginia                  | 4,971           | 3,864           | 4,075             | 2,383           | 250,314           | 187,062           | 19,735    | 9,892     | 78,179            | 60,173           | 357,273            | 263,375            |
| Wisconsin                      | 17,217          | 12,791          | 62,846            | 43,931          | 496,546           | 391,918           | -         | -         | 207,063           | 161,484          | 783,672            | 610,123            |
| Wyoming                        | 666             | 458             | 5,086             | 3,741           | 34,293            | 25,543            | 9,990     | 6,395     | 43,718            | 33,231           | 93,753             | 69,368             |
| Totals                         | \$1,851,338     | \$1,379,920     |                   | \$2,675,194     | \$43,958,968      | \$34,446,358      | \$95,557  | \$70,794  | \$6,578,997       | \$4,860,275      | \$56,227,618       | \$43,432,540       |
| - Jun 3                        | Ψ1,001,000      | Ψ1,517,720      | Ψ3,172,130        | Ψ±,075,17T      | Ψ τυ, νυυ, νυυ    | Ψυτ,ττυ,υυυ       | 4,0,001   | 410,177   | 40,010,771        | Ψ +,000,273      | 420,227,010        | \$ 75,752,5TO      |

Notes: Unlike in Table 4.1, all commitments and disbursements have been shown in this table, including those in issued funding year 2021. Because of the appeals process, funding commitments and disbursements may be issued after the end of the program year. Also, disbursements may continue beyond the end of the program year in the event of delayed internal connections installation. Other adjustments and corrections may also occur.

Source: Universal Service Administrative Company



### Section 5 – Rural Health Care

The Rural Health Care (RHC) Program provides funding to eligible health care providers for broadband and telecommunications services necessary for the provision of health care. The goal of the program is to improve the quality of health care available to patients in rural communities by ensuring that eligible health care providers have access to broadband and telecommunications services. RHC Program support is provided on a funding year basis. Funding years run from July 1 through June 30 of the subsequent year. Prior to FY 2017, the RHC Program cap was \$400 million. Beginning in funding year (FY) 2017, funding for the RHC Program was capped at \$571 million and annually adjusted for inflation. The cap for FY 2021 is \$612 million. The RHC Program is administered by the Universal Service Fund (USF) administrator, the Universal Service Administrative Company (USAC), under the direction of the Commission.

The RHC Program provides funding through two programs: The Telecommunications (Telecom) Program and the Healthcare Connect Fund Program. The Telecom Program, established in 1997, ensures that rural health care providers pay no more than their urban counterparts for telecommunications services. Specifically, an applicant's program support is based on the difference between rural rates charged for telecommunications services in the rural areas in a state and the urban rates charged for similar telecommunications services in the same state. Eligible rural health care providers can obtain rates on telecommunications services for their rural health care facilities that are reasonably comparable to rates charged for similar services in corresponding urban areas, and the USF pays the difference between the urban rate and rural rate calculated under the Commission's rules to the service provider—in effect, providing a discount to the rural health care provider in the amount of the "rural-urban differential." The Healthcare Connect Fund Program, established in 2012, provides a flat 65% discount on an array of communications services to both individual rural health care provider and consortia, which can include non-rural health care providers (if the consortium has a majority of rural sites). These services include Internet access, dark fiber, business data, traditional DSL, and private carriage services. With the Healthcare Connect Fund Program, the Commission intended to promote the use of broadband services and facilitate the formation of healthcare provider consortia recognizing the increasing need for rural health care providers to have access to specialists who are often located in urban areas, as well as the advent of certain communications-based trends in healthcare delivery, such as the move towards electronic health records.

Additional information about the RHC Program can be found on the Commission's website at <a href="http://www.fcc.gov/encyclopedia/rural-health-care">http://www.fcc.gov/encyclopedia/rural-health-care</a> and on USAC's website at <a href="http://www.usac.org/rhc/">http://www.usac.org/rhc/</a>

Table 5.1 – Rural Health Care Funding Commitments and Disbursements by Program and Year (in Thousands of Dollars)

|         |              | nications and |           |           |           |           | m         |           |  |
|---------|--------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|--|
|         | Internet Acc | ess Program   | Pil       | ot        | Healthcar | e Connect | Tot       | als       |  |
| Funding | Funds        | Funds         | Funds     | Funds     | Funds     | Funds     | Funds     | Funds     |  |
| year    | Committed    | Disbursed     | Committed | Disbursed | Committed | Disbursed | Committed | Disbursed |  |
| 1998    | \$ 3,388     | \$ 3,369      | \$ 0      | \$ 0      | \$ 0      | \$ 0      | \$ 3,388  | \$ 3,369  |  |
| 1999    | 4,653        | 4,291         | 0         | 0         | 0         | 0         | 4,653     | 4,291     |  |
| 2000    | 10,711       | 10,196        | 0         | 0         | 0         | 0         | 10,711    | 10,196    |  |
| 2001    | 19,582       | 18,477        | 0         | 0         | 0         | 0         | 19,582    | 18,477    |  |
| 2002    | 23,344       | 21,366        | 0         | 0         | 0         | 0         | 23,344    | 21,366    |  |
| 2003    | 27,908       | 25,726        | 0         | 0         | 0         | 0         | 27,908    | 25,726    |  |
| 2004    | 32,128       | 30,962        | 0         | 0         | 0         | 0         | 32,128    | 30,962    |  |
| 2005    | 40,742       | 39,999        | 0         | 0         | 0         | 0         | 40,742    | 39,999    |  |
| 2006    | 45,989       | 45,092        | 0         | 0         | 0         | 0         | 45,989    | 45,092    |  |
| 2007    | 56,210       | 54,818        | 467       | 467       | 0         | 0         | 56,677    | 55,285    |  |
| 2008    | 67,765       | 66,661        | 14,734    | 14,300    | 0         | 0         | 82,499    | 80,961    |  |
| 2009    | 72,828       | 71,439        | 350,702   | 281,372   | 0         | 0         | 423,531   | 352,810   |  |
| 2010    | 92,053       | 87,326        | 0         | 0         | 0         | 0         | 92,053    | 87,326    |  |
| 2011    | 104,360      | 101,291       | 0         | 0         | 0         | 0         | 104,360   | 101,291   |  |
| 2012    | 117,236      | 116,947       | 0         | 0         | 0         | 0         | 117,236   | 116,947   |  |
| 2013    | 133,412      | 128,697       | 0         | 0         | 45,658    | 45,664    | 179,070   | 174,361   |  |
| 2014    | 137,167      | 135,346       | 0         | 0         | 88,170    | 88,930    | 225,337   | 224,276   |  |
| 2015    | 184,569      | 168,719       | 0         | 0         | 100,638   | 100,602   | 285,207   | 269,321   |  |
| 2016    | 197,463      | 184,400       | 0         | 0         | 137,325   | 124,864   | 334,788   | 309,264   |  |
| 2017    | 178,395      | 166,795       | 0         | 0         | 176,032   | 171,964   | 354,427   | 338,758   |  |
| 2018    | 142,566      | 134,973       | 0         | 0         | 166,071   | 161,590   | 308,637   | 296,563   |  |
| 2019    | 167,482      | 161,080       | 0         | 0         | 313,412   | 216,361   | 480,894   | 377,441   |  |
| 2020    | 138,631      | 32,048        | 0         | 0         | 265,097   | 16,980    | 403,728   | 49,028    |  |

Note: Activity through June 30, 2021. Funding Year 2021 commitment and disbursement information has not been displayed because by June 30, the data cutoff date for this report, no commitments or disbursements for funding year 2021 were made during that time. However, we anticipate that a substantial amount of commitments and disbursements for funding year 2021 will be made. Also, because of the appeals process, funding commitments and disbursements can be made after the end of the program year. Disbursements may also continue beyond the end of the program year in the event of delayed internal connections installation. Other adjustments and corrections may also be made.

Source: Universal Service Administrative Company.

Table 5.2 – Rural Health Care Funding Commitments and Disbursements from Program Inception
Through June 30, 2021 by State Program (in Thousands of Dollars)

| State                    | Telecommunicat<br>Access F | ions and Internet<br>Program | Pil                | lot             | Healthcar          | e Connect       | To                 | tals            |
|--------------------------|----------------------------|------------------------------|--------------------|-----------------|--------------------|-----------------|--------------------|-----------------|
| State                    | Funds<br>Committed         | Funds Disbursed              | Funds<br>Committed | Funds Disbursed | Funds<br>Committed | Funds Disbursed | Funds<br>Committed | Funds Disbursed |
| Alabama                  | \$ 15,594                  | \$ 12,299                    | \$ 2,749           | \$ 2,746        | \$ 12,318          | \$ 8,364        | \$ 30,662          | \$ 23,410       |
| Alaska                   | 1,165,691                  | 1,041,638                    | 1,882              | 209             | 5,682              | 3,281           | 1,173,255          | 1,045,128       |
| American Samoa           | 1,512                      | 1,419                        | 0                  | 0               | 0                  | 0               | 1,512              | 1,419           |
| Arizona                  | 50,567                     | 47,800                       | 7,506              | 5,637           | 18,168             | 12,404          | 76,242             | 65,841          |
| Arkansas                 | 24,591                     | 22,528                       | 4,218              | 4,132           | 59,025             | 38,501          | 87,834             | 65,160          |
| California               | 54,521                     | 51,751                       | 22,903             | 11,136          | 114,954            | 87,396          | 192,378            | 150,282         |
| Colorado                 | 4,645                      | 4,267                        | 10,870             | 10,702          | 57,502             | 45,775          | 73,017             | 60,745          |
| Connecticut              | 12                         | 12                           | 0                  | 0               | 7,687              | 3,849           | 7,699              | 3,861           |
| Delaware                 | 1                          | 1                            | 0                  | 0               | 2,100              | 1,225           | 2,101              | 1,225           |
| District of Columbia     | 18                         | 8                            | 0                  | 0               | 0                  | 0               | 18                 | 8               |
| Florida                  | 6,773                      | 6,309                        | 63                 | 63              | 27,903             | 19,883          | 34,739             | 26,255          |
| Georgia                  | 46,673                     | 43,791                       | 2,233              | 2,166           | 31,417             | 23,426          | 80,322             | 69,383          |
| Guam                     | 767                        | 762                          | 89                 | 83              | 583                | 457             | 1,439              | 1,302           |
| Hawaii                   | 2,435                      | 2,376                        | 4,653              | 2,100           | 3,877              | 1,917           | 10,965             | 6,393           |
| Idaho                    | 11,888                     | 11,065                       | 0                  | 0               | 11,815             | 8,542           | 23,702             | 19,608          |
| Illinois                 | 21,088                     | 20,304                       | 21,071             | 21,070          | 39,647             | 26,205          | 81,805             | 67,579          |
| Indiana                  | 9,898                      | 7,587                        | 15,458             | 12,800          | 52,898             | 42,892          | 78,254             | 63,280          |
| Iowa                     | 7,475                      | 7,143                        | 17,368             | 17,291          | 25,108             | 19,524          | 49,951             | 43,959          |
| Kansas                   | 10,722                     | 10,255                       | 0                  | 0               | 33,905             | 25,000          | 44,627             | 35,255          |
| Kentucky                 | 19,115                     | 17,365                       | 2,945              | 913             | 38,303             | 26,665          | 60,363             | 44,943          |
| Louisiana                | 13,212                     | 12,790                       | 15,570             | 375             | 16,418             | 11,148          | 45,201             | 24,312          |
| Maine                    | 596                        | 491                          | 12,957             | 12,639          | 21,857             | 11,438          | 35,410             |                 |
| Maryland                 | 334                        | 217                          | 0                  | 0               | 2,817              | 1,963           | 3,152              |                 |
| Massachusetts            | 1,054                      | 1,006                        | 0                  | 0               | 8,621              | 6,062           | 9,674              | 7,068           |
| Michigan                 | 23,461                     | 22,185                       | 19,449             | 19,230          | 38,672             | 28,455          | 81,582             | 69,870          |
| Minnesota                | 35,143                     | 33,372                       | 5,714              | 5,297           | 21,000             | 16,445          | 61,857             | 55,114          |
| Mississippi              | 44,100                     | 41,027                       | 0                  | 0               | 18,606             | 12,563          | 62,705             | 53,590          |
| Missouri                 | 21,661                     | 20,346                       | 2,538              | 2,193           | 35,479             | 24,801          | 59,677             | 47,339          |
| Montana                  | 12,874                     | 12,053                       | 15,413             | 14,756          | 7,203              | 5,161           | 35,490             | 31,970          |
| Nebraska                 | 22,980                     | 22,219                       | 18,010             | 18,010          | 23,276             | 18,823          | 64,267             | 59,052          |
| Nevada                   | 3,103                      | 3,069                        | 0                  | 0               | 3,804              | 2,353           | 6,907              | 5,423           |
| New Hampshire            | 234                        | 224                          | 6,400              | 6,335           | 10,047             | 4,426           | 16,681             | 10,985          |
| New Jersey               | 0                          | 0                            | 0                  | 0               | 451                | 308             | 451                | 308             |
| New Mexico               | 13,194                     | 11,808                       | 11,770             | 11,029          | 22,681             | 13,389          | 47,645             | 36,226          |
| New York                 | 2,683                      | 2,405                        | 15,492             | 14,681          | 39,634             | 30,340          | 57,809             | 47,426          |
| North Carolina           | 9,039                      | 8,498                        | 12,169             | 12,115          | 57,767             | 36,706          | 78,975             | 57,318          |
| North Dakota             | 15,182                     | 14,610                       | 912                | 835             | 11,727             | 8,630           | 27,822             | 24,075          |
| Northern Mariana Islands | 43                         | 21                           | 46                 | 44              | 9                  | 0               | 98                 |                 |
| Ohio                     | 10,500                     | 9,838                        | 27,209             | 26,478          | 34,685             | 25,499          | 72,394             | 61,816          |
| Oklahoma                 | 30,688                     | 29,316                       | 0                  | 0               | 35,044             | 26,868          | 65,732             | 56,183          |
| Oregon                   | 3,978                      | 3,792                        | 18,130             | 17,129          | 31,839             | 25,223          | 53,946             | 46,143          |
| Pennsylvania             | 1,759                      | 1,584                        | 6,793              | 6,035           | 31,584             | 23,303          | 40,135             | 30,922          |
| Puerto Rico              | 0                          | 0                            | 0,750              | 0               | 115                | 114             | 115                | 114             |
| Rhode Island             | 0                          | 0                            | 0                  | 0               | 336                | 151             | 336                |                 |
| South Carolina           | 5,590                      | 2,435                        | 8,763              | 8,282           | 39,496             | 24,141          | 53,850             | 34,859          |
| South Dakota             | 10,731                     | 10,510                       | 4,585              | 4,482           | 12,742             | 9,492           | 28,058             | 24,485          |
| Tennessee                | 16,707                     | 15,173                       | 6,834              | 0               | 19,571             | 12,693          | 43,112             | 27,866          |
| Texas                    | 96,733                     | 81,585                       | 15,250             | ا م             | 59,976             | 46,647          | 171,960            | 128,233         |
| Utah                     | 10,011                     | 9,298                        | 8,815              | 8,176           | 7,950              | 4,803           | 26,776             |                 |
| Vermont                  | 950                        | 904                          | 6,078              | 6,047           | 6,661              | 4,206           | 13,689             | 11,156          |
| Virgin Islands           | 852                        | 846                          | 0,078              | 0,047           | 109                | 24              | 962                |                 |
| Virginia<br>Virginia     | 36,885                     | 34,448                       | 2,698              | 1,965           | 23,397             | 16,027          | 62,981             | 52,441          |
| Washington               | 3,227                      | 3,031                        | 2,098              | 1,903           | 34,688             | 24,429          | 38,033             | 27,577          |
| West Virginia            | 14,474                     | 12,140                       | 7,070              | 5,751           | 7,721              | 6,182           | 29,265             | 24,073          |
| Wisconsin                | 79,203                     | 76,836                       |                    |                 | 59,339             |                 |                    |                 |
|                          |                            |                              | 2,312              | 2,303           |                    | 45,643          | 140,855            |                 |
| Wyoming                  | 3,417                      | 3,262                        | 797                | 784             | 4,188              | 3,196           | 8,401              | 7,242           |
| Totals                   | \$ 1,998,582               | \$ 1,810,018                 | \$ 365,903         | \$ 296,139      | \$ 1,292,403       | \$ 926,955      | \$ 3,656,889       | \$ 3,033,111    |

Source: Universal Service Administrative Company.



## **Section 6 – Subscribership (Voice and Internet)**

#### Overview – Subscribership: Voice & Internet

Continuing analysis of telephone subscribership statistics allows one to examine the aggregate effects of Commission actions and industry evolution on households' decisions to maintain, acquire or drop telephone service. In addition to telephone subscribership statistics, recent surveys by the Census Bureau now also provide information about subscribership to high-speed Internet services. Starting in 2016, this section includes telephone and Internet expense statistics for lower-income households. Starting in 2017, this section includes fixed broadband deployment and subscription information for ILECs. This chapter presents comprehensive data on telephone subscribership and expense statistics and information collected by the Bureau of the Census, the Bureau of Labor Statistics, and the FCC primarily through the American Community Survey (ACS), the Current Population Survey (CPS), the Consumer Expenditures Survey (CE), and FCC Form 477. The section also provides national and state-level estimates of high-speed Internet adoption based on the ACS. Along with telephone and high-speed Internet subscribership statistics for the nation and each of the states, data are provided on subscribership for various demographics. For telephone service, particular attention is given to subscribership and expenses for lower income households given the Commission's various low-income programs such as Lifeline.

To provide regular, high-quality data on telephone subscribership, the Commission requested that the Census Bureau include questions on telephone availability as part of its CPS, which monitors demographic trends between decennial censuses. The CPS is a staggered panel survey in which the people residing at selected addresses are included in the survey for four consecutive months in one year and the same four months in the following year. Use of the CPS 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 reasonable degree of confidence.

In addition to the CPS, the ACS also provides data for calculating a measure of telephone subscribership. The ACS replaced the decennial census long form and thus also provides a wealth of data and large sample sizes, though on a less frequent basis than the CPS. Whereas the CPS reports household subscribership, the ACS follows the design of past decennial censuses and reports telephone subscribership for occupied housing units. In this chapter, subscribership measures from the CPS, the ACS, and decennial censuses (prior to the ACS) are reported as complements to each other.<sup>10</sup>

Historically, the ACS provided telephone subscribership data, and since 2013 now also asks whether households have access to the Internet. The ACS asks, "At this house, apartment, or mobile home – do you or any member of this household access the Internet?" Statistics based on 2019 data from

<sup>&</sup>lt;sup>10</sup> Subscribership statistics derived from the CPS cannot be directly compared with the subscribership estimates based on the responses to the long forms of the 1990 and 2000 decennial censuses or the ACS. This is due to differences in sampling techniques and survey methodologies as well as differences in the context in which the questions are asked. For example, the 2013 ACS reported 97.7% of all occupied housing units in the United States had telephone service available, whereas the March 2013 CPS data showed a household subscribership of 96.0%. This difference is statistically significant and may indicate that the CPS value is on the low side and the ACS value is on the high side, with the most probable value lying somewhere in between.

the ACS on high-speed Internet subscribership have been incorporated into this report. Since the ACS is conducted throughout the year, a 1-year average is calculated using the data.

The specific questions regarding telephone availability asked in the CPS are: "Does this house, apartment, or mobile home have telephone service from which you can both make and receive calls? Please include cell phones, regular phones, and any other type of telephone." And, if the answer to the first question is "no," this is followed up with: "Is there a telephone elsewhere on which people in this household can be called?" If the answer to the first question is "yes," the household is counted as having a telephone "in unit." If the answer to either the first or second question is "yes," the household is counted as having a telephone "available." In contrast to the CPS, the ACS in 2019 simply asks: "Does this house, apartment, or mobile home have telephone service from which you can both make and receive calls? Include cell phones." Thus, the ACS question is most similar to the CPS's "in unit" subscribership rather than "available."

Although the CPS is conducted every month, not all questions are asked every month. The telephone questions are asked once every four months. The changes in the CPS estimates reflect changes over the preceding four months. Aggregated summaries of the responses are reported to the Commission, based on the surveys conducted through March, July, and November of each year. The ACS provides annual telephone subscribership statistics based on data collected monthly throughout the year.

The CPS data are based on a nationwide sample of about 50 to 60 thousand households in the 50 states and the District of Columbia. The CPS does not cover outlying areas that are not states, such as Puerto Rico, Guam, American Samoa, the Virgin Islands, and the Northern Mariana Islands. The ACS form is sent to approximately 250 thousand addresses per month, for a total of about 3 million addresses per year. The ACS covers the states, the District of Columbia, and Puerto Rico.

The questions and answer categories used to collect ACS data on computer and Internet use were revised in 2016. The changes in high-speed Internet subscribership may be due to the revised wording and improved measurement, rather than a result of changes in the Internet use.

Due to the pandemic, the standard ACS 2020 1-year data were not released. Census instead released a series of experimental estimates from the 1-year data. This is because certain groups were unable to be interviewed to establish weights created in the same way as other years. We maintain 2019 data in these cases.

Section 6 also presents broadband subscription and deployment information from ILEC's Form 477 and study area boundary submissions. Additionally, carriers participating in modernized Connect America Fund programs must file broadband deployment data with USAC's HUBB (High Cost Universal Broadband) portal showing where they are building out mass-market, high-speed Internet service. These deployment data have been rolled up by funding mechanism and compared against their deployment obligations.

<sup>&</sup>lt;sup>11</sup> Annual data for Puerto Rico has been available from the ACS starting with 2005. The percentage of occupied housing units with voice service for the last five years of available data are reported in Table 6.6.

Table 6.1 – Household Voice Subscribership in the United States, 1983 – 2021

| Month    | Year | Households<br>(millions) | Households with<br>a Telephone in<br>Unit (millions) | Percentage with<br>Telephone in Unit | Households<br>without a<br>Telephone in<br>Unit (millions) | Percentage<br>without Telephone<br>in Unit |
|----------|------|--------------------------|--|--------------------------------------|--|--|
| November | 1983 | 85.8                     | 78.4   | 91.4                                 | 7.4  | 8.6  |
| November | 1984 | 87.4                     | 79.9   | 91.4                                 | 7.5  | 8.6  |
| November | 1985 | 88.8                     | 81.6   | 91.9                                 | 7.2  | 8.1  |
| November | 1986 | 89.9                     | 83.1   | 92.4                                 | 6.8  | 7.6  |
| November | 1987 | 91.3                     | 84.3   | 92.3                                 | 7.0  | 7.7  |
| November | 1988 | 92.6                     | 85.7   | 92.5                                 | 6.9  | 7.5  |
| November | 1989 | 93.9                     | 87.3   | 93.0                                 | 6.6  | 7.0  |
| November | 1990 | 94.7                     | 88.4   | 93.3                                 | 6.3  | 6.7  |
| November | 1991 | 95.7                     | 89.4   | 93.4                                 | 6.3  | 6.6  |
| November | 1992 | 97.0                     | 91.0   | 93.8                                 | 6.0  | 6.2  |
| November | 1993 | 98.8                     | 93.0   | 94.2                                 | 5.8  | 5.8  |
| November | 1994 | 99.8                     | 93.7   | 93.8                                 | 6.2  | 6.2  |
| November | 1995 | 100.4                    | 94.2   | 93.9                                 | 6.2  | 6.1  |
| November | 1996 | 101.3                    | 95.1   | 93.9                                 | 6.2  | 6.1  |
| November | 1997 | 102.8                    | 96.5   | 93.8                                 | 6.3  | 6.2  |
| November | 1998 | 104.1                    | 98.0   | 94.2                                 | 6.1  | 5.8  |
| November | 1999 | 105.4                    | 99.1   | 94.1                                 | 6.3  | 5.9  |
| November | 2000 | 106.5                    | 100.2  | 94.1                                 | 6.3  | 5.9  |
| November | 2001 | 107.7                    | 102.2  | 94.9                                 | 5.5  | 5.1  |
| November | 2002 | 109.0                    | 104.0  | 95.3                                 | 5.1  | 4.7  |
| November | 2003 | 113.1                    | 107.1  | 94.7                                 | 6.0  | 5.3  |
| November | 2004 | 113.8                    | 106.4  | 93.5                                 | 7.4  | 6.5  |
| November | 2005 | 115.2                    | 107.0  | 92.9                                 | 8.2  | 7.1  |
| November | 2006 | 116.4                    | 108.8  | 93.4                                 | 7.6  | 6.6  |
| November | 2007 | 118.2                    | 112.2  | 94.9                                 | 6.0  | 5.1  |
| November | 2008 | 118.6                    | 112.7  | 95.0                                 | 5.9  | 5.0  |
| November | 2009 | 119.2                    | 114.0  | 95.7                                 | 5.1  | 4.3  |
| November | 2010 | 119.4                    | 114.0  | 95.5                                 | 5.4  | 4.5  |
| November | 2011 | 119.7                    | 114.4  | 95.6                                 | 5.3  | 4.4  |
| November | 2012 | 122.0                    | 116.9  | 95.8                                 | 5.1  | 4.2  |
| November | 2013 | 123.7                    | 118.4  | 95.7                                 | 5.3  | 4.3  |
| November | 2014 | 124.8                    | 119.9  | 96.1                                 | 4.9  | 3.9  |
| November | 2015 | 126.1                    | 122.2  | 96.3                                 | 3.9  | 3.1  |
| November | 2016 | 127.3                    | 122.6  | 96.3                                 | 4.7  | 3.7  |
| March    | 2017 | 127.4                    | 122.6  | 96.2                                 | 4.8  | 3.8  |
| July     | 2017 | 127.5                    | 122.9  | 96.4                                 | 4.6  | 3.6  |
| November | 2017 | 127.5                    | 122.1  | 95.8                                 | 5.4  | 4.2  |
| March    | 2018 | 128.8                    | 124.2  | 96.4                                 | 4.6  | 3.6  |
| July     | 2018 | 129.1                    | 123.9  | 96.0                                 | 5.2  | 4.0  |
| November | 2018 | 129.4                    | 124.2  | 96.0                                 | 5.2  | 4.0  |
| March    | 2019 | 129.9                    | 124.9  | 96.2                                 | 4.9  | 3.8  |
| July     | 2019 | 129.9                    | 124.9  | 96.2                                 | 4.9  | 3.8  |
| November | 2019 | 130.6                    | 125.2  | 95.8                                 | 5.4  | 4.2  |
| March    | 2020 | 129.3                    | 125.4  | 97.0                                 | 3.9  | 3.0  |
| July     | 2020 | 128.5                    | 126.1  | 98.1                                 | 2.4  | 1.9  |
| November | 2020 | 130.9                    | 127.2  | 97.2                                 | 3.7  | 2.8  |
| March    | 2021 | 130.9                    | 127.1  | 97.1                                 | 3.8  | 2.9  |
| July     | 2021 | 131.3                    | 127.8  | 97.3                                 | 3.5  | 2.7  |

Source: United States Census Bureau, Current Population Survey

Table 6.2 – Household Voice Penetration by Income, 1997 – 2021 (in 1984 Dollars)

|      | \$9,999 or | \$10,000 - | \$20,000 - | \$30,000 - | \$40,000 or | All        |
|------|------------|------------|------------|------------|-------------|------------|
|      | Less       | \$19,999   | \$29,999   | \$39,999   | Greater     | Households |
| 1997 | 86.0       | 93.0       | 96.5       | 97.6       | 98.2        | 94.0       |
| 1998 | 85.7       | 93.7       | 96.1       | 97.4       | 98.2        | 94.1       |
| 1999 | 85.5       | 92.9       | 96.0       | 97.2       | 98.2        | 94.0       |
| 2000 | 87.5       | 93.3       | 96.1       | 97.3       | 98.0        | 94.5       |
| 2001 | 87.6       | 93.4       | 95.9       | 97.1       | 97.8        | 94.4       |
| 2002 | 89.1       | 94.3       | 96.9       | 98.1       | 98.8        | 95.5       |
| 2003 | 89.2       | 94.6       | 97.0       | 98.1       | 98.8        | 95.5       |
| 2004 | 88.0       | 93.2       | 95.3       | 96.7       | 97.7        | 94.2       |
| 2005 | 86.4       | 91.2       | 94.1       | 95.2       | 96.0        | 92.5       |
| 2006 | 86.3       | 91.8       | 94.4       | 95.4       | 96.5        | 92.9       |
| 2007 | 88.4       | 94.1       | 95.9       | 96.8       | 97.9        | 94.6       |
| 2008 | 89.7       | 94.3       | 96.2       | 97.4       | 98.3        | 95.2       |
| 2009 | 90.4       | 95.2       | 96.6       | 97.3       | 98.3        | 95.6       |
| 2010 | 91.9       | 95.8       | 96.9       | 97.7       | 98.6        | 96.1       |
| 2011 | 91.5       | 95.9       | 96.8       | 97.8       | 98.3        | 95.9       |
| 2012 | 92.0       | 95.3       | 96.9       | 97.8       | 98.3        | 95.9       |
| 2013 | 92.6       | 95.6       | 97.0       | 97.2       | 98.3        | 96.0       |
| 2014 | 93.1       | 95.9       | 96.7       | 97.9       | 98.2        | 96.3       |
| 2015 | 93.2       | 96.0       | 97.1       | 97.7       | 98.1        | 96.4       |
| 2016 | 93.2       | 96.4       | 97.0       | 97.6       | 98.0        | 96.4       |
| 2017 | 93.1       | 96.0       | 96.9       | 97.5       | 97.8        | 96.3       |
| 2018 | 92.9       | 96.3       | 97.1       | 97.5       | 97.6        | 96.3       |
| 2019 | 93.1       | 96.1       | 96.3       | 97.1       | 97.8        | 96.2       |
| 2020 | 94.2       | 96.5       | 97.5       | 97.7       | 98.2        | 97.0       |
| 2021 | 94.9       | 97.0       | 97.3       | 97.7       | 98.2        | 97.1       |

*Notes*: Income groups classified by 1984 dollars. For a conversion to current-year dollars, consult Table 6.3. Total penetration rates may differ slightly from those in Table 6.1 due to sampling differences between the March CPS and the March CPS Supplement.

Source: U.S. Census Bureau, Current Population Survey (March CPS Supplement).

Table 6.3 – Nominal Dollar Equivalents by Year

| 1984 | \$10,000 | \$20,000 | \$30,000 | \$40,000 |
|------|----------|----------|----------|----------|
| 1997 | 15,595   | 31,190   | 46,785   | 62,380   |
| 1998 | 15,809   | 31,618   | 47,427   | 63,236   |
| 1999 | 16,082   | 32,164   | 48,246   | 64,328   |
| 2000 | 16,686   | 33,372   | 50,058   | 66,744   |
| 2001 | 17,173   | 34,346   | 51,519   | 68,692   |
| 2002 | 17,427   | 34,854   | 52,281   | 69,708   |
| 2003 | 17,953   | 35,906   | 53,859   | 71,812   |
| 2004 | 18,265   | 36,530   | 54,795   | 73,060   |
| 2005 | 18,840   | 37,680   | 56,520   | 75,360   |
| 2006 | 19,474   | 38,948   | 58,422   | 77,896   |
| 2007 | 20,015   | 40,030   | 60,045   | 80,060   |
| 2008 | 20,812   | 41,624   | 62,436   | 83,248   |
| 2009 | 20,732   | 41,464   | 62,196   | 82,928   |
| 2010 | 21,212   | 42,423   | 63,635   | 84,846   |
| 2011 | 21,780   | 43,561   | 65,341   | 87,122   |
| 2012 | 22,358   | 44,716   | 67,074   | 89,432   |
| 2013 | 22,687   | 45,375   | 68,062   | 90,750   |
| 2014 | 23,031   | 46,061   | 69,092   | 92,122   |
| 2015 | 23,014   | 46,027   | 69,041   | 92,054   |
| 2016 | 23,210   | 46,419   | 69,629   | 92,839   |
| 2017 | 23,762   | 47,525   | 71,287   | 95,049   |
| 2018 | 24,323   | 48,646   | 72,969   | 97,292   |
| 2019 | 24,776   | 49,552   | 74,328   | 99,104   |
| 2020 | 25,157   | 50,315   | 75,472   | 100,630  |
| 2021 | 25,816   | 51,633   | 77,449   | 103,266  |

Note: All numbers based on CPI non-adjusted series, March 1984 base of 102.6. This table shows the nominal dollar equivalents for each 1984-dollar amount used in classifying income categories in Tables 6.2 and 6.8.

Table 6.4 – Historical Voice Penetration Estimates

|            | Percentage of Occupied Housing<br>Units with Telephone Service <sup>1</sup> | Percentage of Households with<br>Telephone Service <sup>2</sup> |
|------------|---|---|
| 1920       | 35.0  |   |
| 1930       | 40.9  |   |
| 1940       | 36.9  |   |
| 1950       | 61.8  |   |
| 1960       | 78.3  |   |
| 1970       | 90.5  |   |
| 1980       | 92.9  |   |
| 1990       | 94.8  | 93.3  |
| 2000       | 97.6  | 94.4  |
| 2001       | 96.9  | 94.9  |
| 2002       | 96.6  | 95.3  |
| 2003       | 96.2  | 95.1  |
| 2004       | 95.7  | 93.8  |
| 2005       | 94.8  | 93.1  |
| 2006       | 94.1  | 93.6  |
| 2007       | 94.6  | 94.8  |
| $2008^{3}$ | 98.2  | 95.2  |
| 2009       | 97.7  | 95.7  |
| 2010       | 97.5  | 95.8  |
| 2011       | 97.4  | 95.7  |
| 2012       | 97.4  | 95.9  |
| 2013       | 97.7  | 95.9  |
| 2014       | 97.6  | 96.1  |
| 2015       | 97.4  | 96.3  |
| 2016       | 97.0  | 96.4  |
| 2017       | 98.5  | 96.1  |
| 2018       | 98.5  | 96.1  |
| 2019       | 99.0  | 96.1  |
| 2020       | $NA^4$  | 97.4  |
| 2021       | $NA^5$  | 97.3  |

Housing Unit penetration statistics are from the U.S. Census Bureau's Historical Statistics of the United States, Colonial Times to 1970, Part 2, page 783 (1920 - 1970); the decennial censuses (1980 - 2000); and the Census Bureau's American Community Survey (ACS) 1-year estimates (2001 - 2019).

Household penetration data (1990 - 2019) are annual averages from the U.S. Census based on the Current Population Survey. For 2021, July CPS data are used.

Errata #53: released April 12, 2010, regarding 2008 ACS 1-year and 2006-2008 ACS 3-year estimates for household kitchen facilities and telephone service. Two errors were found affecting the 2008 ACS 1-year data and the 2006-2008 ACS 3-year data for telephone service. The errors involve the last two items in Question 8 on the housing section of the 2008 ACS questionnaire which asks whether the housing unit has telephone service (including cell phones). The error involved the incorrect capture of the responses to those items. It affected the estimates of householders who reported no telephone service, resulting in an underestimate of "no" responses and an increased imputation rate for both items. At the national level, the percent of households reporting no telephone service in 2008 was 1.8 percent; however, after correcting the data capture error, the percent reporting no telephone service is approximately 2.8 percent.

<sup>&</sup>lt;sup>4</sup> ACS statistics for 2020 are experimental due to COVID-19 impacting the ACS.

<sup>&</sup>lt;sup>5</sup> ACS statistics for 2021 are not available.

Table 6.5 – Voice Penetration by Selected Demographic Characteristics (Percentage of Households with Voice Service)

| Characteristic             | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------------------|------|------|------|------|------|
| Persons in Household       |      |      |      |      |      |
| 1                          | 94.1 | 94.3 | 94.3 | 96.2 | 96.2 |
| 2 - 3                      | 96.9 | 96.7 | 96.7 | 97.9 | 97.7 |
| 4 - 5                      | 97.2 | 97.3 | 97.1 | 97.9 | 97.9 |
| 6+                         | 96.0 | 96.5 | 96.3 | 97.3 | 96.7 |
| Age of Householder         |      |      |      |      |      |
| 15 - 24 Yrs Old            | 95.9 | 95.9 | 95.5 | 97.5 | 96.2 |
| 25 - 54 Yrs Old            | 96.0 | 96.1 | 96.2 | 97.4 | 97.6 |
| 55 - 59 Yrs Old            | 95.9 | 96.4 | 95.6 | 97.3 | 97.1 |
| 60 - 64 Yrs Old            | 96.6 | 96.3 | 95.9 | 97.5 | 97.2 |
| 65 - 69 Yrs Old            | 96.9 | 96.5 | 96.5 | 97.4 | 97.1 |
| 70 - 99 Yrs Old            | 95.9 | 95.9 | 95.8 | 97.3 | 96.8 |
| Race of Householder        |      |      |      |      |      |
| White                      | 96.5 | 96.5 | 96.4 | 97.6 | 97.5 |
| Black                      | 94.0 | 94.2 | 94.7 | 96.5 | 96.3 |
| Hispanic Origin            | 94.4 | 94.4 | 94.2 | 96.3 | 95.8 |
| <b>Total United States</b> | 96.1 | 96.1 | 96.1 | 97.4 | 97.3 |

*Note*: that 2017 to 2020 values are annual averages. For 2021, values are July 2021 figures since complete 2021 figures were unavailable at the time of publication.

Source: U.S. Census Bureau, Current Population Survey.

Table 6.6 – Voice Subscribership by State, 2014 – 2019

(Percentage of Occupied Housing Units with Voice Service)

|                      | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|----------------------|------|------|------|------|------|------|
| Alabama              | 97.4 | 97.2 | 96.9 | 98.4 | 98.0 | 98.6 |
| Alaska               | 98.1 | 97.3 | 97.5 | 98.9 | 98.7 | 98.6 |
| Arizona              | 97.5 | 97.4 | 96.4 | 98.1 | 98.4 | 98.8 |
| Arkansas             | 97.3 | 96.4 | 96.3 | 97.8 | 98.0 | 98.6 |
| California           | 97.9 | 97.8 | 97.4 | 98.8 | 98.8 | 99.1 |
| Colorado             | 97.9 | 97.9 | 96.9 | 98.7 | 98.6 | 99.2 |
| Connecticut          | 98.5 | 98.5 | 97.9 | 98.9 | 98.9 | 99.2 |
| Delaware             | 97.9 | 98.3 | 97.4 | 98.2 | 99.2 | 99.5 |
| District of Columbia | 97.6 | 97.2 | 96.4 | 97.0 | 98.8 | 99.0 |
| Florida              | 97.1 | 97.1 | 96.4 | 98.3 | 98.4 | 98.8 |
| Georgia              | 97.3 | 97.3 | 97.0 | 98.5 | 98.5 | 99.0 |
| Hawaii               | 97.7 | 97.7 | 97.0 | 98.4 | 98.2 | 98.8 |
| Idaho                | 97.3 | 97.3 | 96.4 | 98.2 | 98.4 | 99.3 |
| Illinois             | 97.4 | 97.6 | 96.9 | 98.5 | 98.5 | 99.0 |
| Indiana              | 97.5 | 97.4 | 97.1 | 98.2 | 98.3 | 98.6 |
| Iowa                 | 97.6 | 97.5 | 96.9 | 98.4 | 98.7 | 99.0 |
| Kansas               | 97.4 | 97.1 | 96.4 | 98.0 | 98.5 | 99.1 |
| Kentucky             | 97.1 | 97.3 | 97.0 | 98.2 | 98.5 | 98.8 |
| Louisiana            | 97.0 | 97.2 | 97.0 | 98.0 | 98.2 | 98.8 |
| Maine                | 98.1 | 97.6 | 97.6 | 98.5 | 98.7 | 99.0 |
| Maryland             | 97.6 | 97.7 | 97.4 | 98.8 | 98.7 | 99.1 |
| Massachusetts        | 98.2 | 98.1 | 98.1 | 98.9 | 98.8 | 99.2 |
| Michigan             | 97.6 | 97.4 | 97.0 | 98.5 | 98.4 | 99.2 |
| Minnesota            | 97.9 | 97.3 | 97.5 | 98.8 | 98.7 | 99.3 |
| Mississippi          | 97.2 | 97.0 | 96.7 | 98.2 | 98.2 | 98.6 |
| Missouri             | 97.1 | 97.2 | 96.9 | 98.3 | 98.5 | 99.0 |
| Montana              | 97.0 | 97.0 | 96.3 | 97.9 | 97.5 | 98.7 |
| Nebraska             | 97.7 | 97.3 | 97.2 | 98.6 | 98.5 | 99.1 |
| Nevada               | 96.5 | 97.2 | 96.5 | 98.3 | 98.1 | 98.7 |
| New Hampshire        | 98.3 | 98.3 | 98.2 | 98.9 | 98.9 | 99.1 |
| New Jersey           | 98.5 | 97.8 | 97.4 | 99.0 | 98.9 | 99.1 |
| New Mexico           | 97.2 | 96.6 | 96.2 | 97.6 | 97.8 | 98.5 |
| New York             | 97.8 | 97.9 | 97.3 | 98.6 | 98.4 | 98.8 |
| North Carolina       | 97.7 | 97.6 | 96.6 | 98.5 | 98.6 | 99.0 |
| North Dakota         | 98.1 | 96.9 | 97.6 | 98.6 | 98.5 | 99.2 |
| Ohio                 | 97.3 | 97.3 | 96.7 | 98.6 | 98.6 | 99.0 |
| Oklahoma             | 97.1 | 97.0 | 96.6 | 98.2 | 98.2 | 98.9 |
| Oregon               | 97.6 | 97.3 | 96.7 | 98.7 | 98.9 | 99.2 |
| Pennsylvania         | 98.2 | 98.0 | 97.7 | 98.5 | 98.6 | 99.0 |
| Rhode Island         | 97.8 | 98.1 | 97.5 | 99.0 | 98.8 | 99.2 |
| South Carolina       | 97.6 | 97.0 | 96.1 | 98.3 | 98.5 | 98.9 |
| South Dakota         | 97.2 | 96.7 | 96.4 | 97.6 | 97.9 | 98.4 |
| Tennessee            | 97.5 | 97.6 | 97.1 | 98.4 | 98.4 | 98.6 |
| Texas                | 97.7 | 97.4 | 96.3 | 98.2 | 98.4 | 99.0 |
| Utah                 | 98.0 | 97.7 | 97.2 | 98.4 | 99.0 | 99.3 |
| Vermont              | 98.1 | 97.9 | 97.2 | 98.6 | 98.0 | 98.7 |
| Virginia             | 98.1 | 97.6 | 97.5 | 98.9 | 98.9 | 99.2 |
| Washington           | 97.6 | 97.5 | 97.0 | 99.0 | 98.7 | 99.1 |
| West Virginia        | 96.9 | 97.3 | 96.9 | 97.1 | 98.4 | 98.5 |
| Wisconsin            | 97.7 | 97.3 | 97.0 | 98.4 | 98.4 | 98.9 |
| Wyoming              | 97.9 | 97.4 | 97.1 | 98.9 | 98.9 | 99.1 |
| Total United States  | 97.6 | 97.4 | 97.0 | 98.5 | 98.5 | 99.0 |
| Puerto Rico          | 94.3 | 95.5 | 96.0 | 96.0 | 95.8 | 96.5 |

Note: 'Total United States' does not include Puerto Rico.

*Note*: 2020 Data unavailable due to Covid-19 impacts to ACS data. *Source*: Census Bureau, American Community Survey, Table DP04.

Table 6.7 – Voice Penetration by State, Selected Years (Percentage of Households with a Telephone in Unit)

|                      | 1984 | 1996 | 2000 | 2010 | 2020 |
|----------------------|------|------|------|------|------|
| Alabama              | 88.4 | 92.2 | 91.9 | 95.2 | 97.9 |
| Alaska               | 86.5 | 94.4 | 94.3 | 97.1 | 99.5 |
| Arizona              | 86.9 | 93.1 | 93.9 | 95.2 | 98.9 |
| Arkansas             | 86.6 | 86.9 | 88.6 | 93.4 | 94.3 |
| California           | 92.5 | 95.0 | 95.8 | 96.4 | 96.7 |
| Colorado             | 93.2 | 95.5 | 96.3 | 97.7 | 99.2 |
| Connecticut          | 95.5 | 97.5 | 96.4 | 97.9 | 97.5 |
| Delaware             | 94.3 | 96.1 | 96.3 | 97.4 | 99.2 |
| District of Columbia | 94.9 | 93.0 | 93.2 | 91.1 | 97.9 |
| Florida              | 88.7 | 93.1 | 92.1 | 93.7 | 92.4 |
| Georgia              | 86.2 | 89.7 | 91.1 | 93.0 | 96.4 |
| Hawaii               | 93.5 | 94.8 | 94.7 | 95.7 | 98.5 |
| Idaho                | 90.7 | 92.9 | 93.9 | 97.9 | 98.4 |
| Illinois             | 94.2 | 93.0 | 91.5 | 95.2 | 98.5 |
| Indiana              | 91.6 | 93.7 | 94.5 | 92.5 | 98.6 |
| Iowa                 | 96.2 | 96.6 | 96.2 | 97.7 | 98.4 |
| Kansas               | 94.3 | 93.9 | 94.8 | 97.7 | 98.7 |
| Kentucky             | 88.1 | 92.3 | 93.3 | 95.0 | 95.2 |
| Louisiana            | 89.7 | 91.1 | 92.6 | 96.5 | 97.5 |
| Maine                | 93.4 | 96.5 | 97.9 | 98.2 | 99.2 |
| Maryland             | 95.7 | 96.7 | 95.0 | 96.2 | 97.9 |
| Massachusetts        |      |      | 94.6 |      | 98.6 |
|                      | 95.9 | 95.7 |      | 97.6 |      |
| Michigan             | 92.8 | 95.0 | 95.0 | 96.8 | 98.0 |
| Minnesota            | 95.8 | 97.1 | 97.4 | 98.5 | 98.9 |
| Mississippi          | 82.4 | 87.5 | 89.2 | 96.0 | 97.5 |
| Missouri             | 91.5 | 95.3 | 95.8 | 96.1 | 98.8 |
| Montana              | 91.0 | 94.3 | 94.6 | 94.9 | 98.2 |
| Nebraska             | 95.7 | 96.0 | 97.3 | 95.6 | 99.1 |
| Nevada               | 90.4 | 93.5 | 94.0 | 96.6 | 96.7 |
| New Hampshire        | 94.3 | 96.1 | 97.7 | 98.2 | 99.3 |
| New Jersey           | 94.8 | 93.6 | 94.6 | 95.9 | 88.2 |
| New Mexico           | 82.0 | 86.2 | 91.2 | 92.4 | 95.3 |
| New York             | 91.8 | 93.4 | 95.1 | 94.8 | 95.4 |
| North Carolina       | 88.3 | 93.5 | 93.9 | 95.5 | 97.6 |
| North Dakota         | 94.6 | 96.3 | 95.8 | 98.5 | 98.8 |
| Ohio                 | 92.4 | 94.5 | 94.8 | 96.7 | 98.0 |
| Oklahoma             | 90.3 | 91.3 | 91.2 | 95.7 | 98.5 |
| Oregon               | 90.6 | 96.0 | 94.8 | 97.6 | 99.1 |
| Pennsylvania         | 94.9 | 96.9 | 96.6 | 98.2 | 98.7 |
| Rhode Island         | 93.6 | 95.7 | 94.9 | 97.2 | 98.2 |
| South Carolina       | 83.7 | 91.3 | 93.2 | 94.3 | 98.5 |
| South Dakota         | 93.2 | 93.3 | 94.3 | 97.8 | 97.9 |
| Tennessee            | 88.5 | 94.0 | 95.5 | 92.2 | 97.8 |
| Texas                | 88.4 | 91.0 | 93.5 | 95.2 | 98.7 |
| Utah                 | 92.5 | 96.7 | 95.9 | 96.7 | 97.3 |
| Vermont              | 92.3 | 95.9 | 95.6 | 98.1 | 98.6 |
| Virginia             | 93.1 | 94.9 | 95.4 | 95.3 | 98.0 |
| Washington           | 93.0 | 94.5 | 94.9 | 98.1 | 99.2 |
| West Virginia        | 87.7 | 92.9 | 94.0 | 96.2 | 99.2 |
| Wisconsin            | 95.2 | 97.0 | 94.8 | 98.3 | 98.7 |
| Wyoming              | 89.9 | 95.0 | 94.7 | 97.3 | 98.0 |
| Total United States  | 91.6 | 93.9 | 94.4 | 95.8 | 97.2 |

Source: U.S. Census Bureau, Current Population Survey.

Table 6.8 – Household Voice Penetration by State and Income, 2021 (in 1984 Dollars)

|                      | \$9,999 or Less | \$10,000 to<br>\$19,999 | \$19,999 to<br>\$29,999 | \$30,000 to<br>\$39,999 | \$40,000 or<br>More | All Households |
|----------------------|-----------------|-------------------------|-------------------------|-------------------------|---------------------|----------------|
| Alabama              | 97.5            | 97.1                    | 98.0                    | 97.4                    | 98.9                | 97.8           |
| Alaska               | 99.3            | 99.2                    | 100.0                   | 96.8                    | 100.0               | 99.3           |
| Arizona              | 97.6            | 99.0                    | 100.0                   | 100.0                   | 99.5                | 99.2           |
| Arkansas             | 94.0            | 95.8                    | 95.3                    | 96.7                    | 95.2                | 95.2           |
| California           | 95.1            | 96.6                    | 96.2                    | 96.7                    | 98.4                | 97.0           |
| Colorado             | 97.6            | 97.3                    | 100.0                   | 100.0                   | 99.8                | 99.1           |
| Connecticut          | 97.5            | 99.2                    | 97.3                    | 98.9                    | 98.6                | 98.3           |
| Delaware             | 100.0           | 98.4                    | 99.2                    | 100.0                   | 99.7                | 99.4           |
| District of Columbia | 95.9            | 98.7                    | 98.0                    | 98.8                    | 99.3                | 98.3           |
| Florida              | 87.9            | 90.9                    | 93.1                    | 93.5                    | 93.3                | 91.5           |
| Georgia              | 94.5            | 96.9                    | 95.4                    | 96.1                    | 97.0                | 96.1           |
| Hawaii               | 95.9            | 99.4                    | 98.5                    | 99.2                    | 99.8                | 98.8           |
| Idaho                | 95.0            | 96.2                    | 99.5                    | 100.0                   | 99.7                | 98.2           |
| Illinois             | 96.3            | 99.1                    | 99.6                    | 99.7                    | 99.4                | 98.9           |
| Indiana              | 94.6            | 97.2                    | 98.9                    | 98.9                    | 98.9                | 97.8           |
| Iowa                 | 94.1            | 100.0                   | 97.4                    | 97.3                    | 100.0               | 98.1           |
| Kansas               | 98.3            | 97.5                    | 99.6                    | 98.8                    | 98.5                | 98.5           |
| Kentucky             | 91.4            | 92.3                    | 96.1                    | 99.1                    | 96.3                | 94.6           |
| Louisiana            | 95.4            | 96.6                    | 98.1                    | 96.6                    | 99.3                | 97.1           |
| Maine                | 96.2            | 100.0                   | 99.5                    | 100.0                   | 100.0               | 99.3           |
| Maryland             | 94.3            | 98.9                    | 97.2                    | 98.8                    | 98.4                | 97.8           |
| Massachusetts        | 96.4            | 98.9                    | 99.6                    | 98.1                    | 98.9                | 98.4           |
|                      | 95.6            | 99.3                    | 98.2                    | 98.5                    | 98.9<br>99.5        | 98.3           |
| Michigan             |                 |                         |                         |                         |                     |                |
| Minnesota            | 98.4            | 99.5                    | 100.0                   | 97.6                    | 99.8<br>97.7        | 99.3<br>97.9   |
| Mississippi          | 96.3            | 97.9                    | 99.5                    | 100.0                   |                     |                |
| Missouri             | 97.4            | 99.5                    | 98.2                    | 100.0                   | 98.7                | 98.7           |
| Montana              | 95.3            | 99.6                    | 99.1                    | 98.9                    | 99.4                | 98.4           |
| Nebraska             | 96.5            | 98.8                    | 100.0                   | 100.0                   | 98.3                | 98.7           |
| Nevada               | 95.6            | 96.6                    | 98.4                    | 99.2                    | 98.1                | 97.4           |
| New Hampshire        | 97.5            | 99.4                    | 100.0                   | 99.4                    | 99.7                | 99.3           |
| New Jersey           | 80.6            | 89.4                    | 87.3                    | 91.5                    | 92.1                | 89.2           |
| New Mexico           | 91.7            | 95.1                    | 98.0                    | 94.7                    | 96.3                | 95.0           |
| New York             | 92.9            | 94.7                    | 94.5                    | 95.8                    | 96.0                | 94.9           |
| North Carolina       | 95.4            | 98.4                    | 97.6                    | 97.4                    | 98.0                | 97.3           |
| North Dakota         | 97.5            | 98.2                    | 100.0                   | 97.0                    | 100.0               | 98.8           |
| Ohio                 | 96.2            | 97.8                    | 98.8                    | 98.3                    | 99.4                | 98.1           |
| Oklahoma             | 97.0            | 97.7                    | 98.9                    | 99.3                    | 100.0               | 98.4           |
| Oregon               | 98.3            | 100.0                   | 98.6                    | 99.5                    | 99.4                | 99.3           |
| Pennsylvania         | 96.7            | 99.2                    | 98.2                    | 100.0                   | 99.2                | 98.7           |
| Rhode Island         | 94.6            | 95.6                    | 95.7                    | 99.3                    | 98.5                | 97.1           |
| South Carolina       | 97.8            | 98.2                    | 99.2                    | 98.5                    | 99.8                | 98.7           |
| South Dakota         | 96.9            | 99.5                    | 98.3                    | 98.8                    | 98.4                | 98.4           |
| Tennessee            | 96.2            | 96.9                    | 98.7                    | 100.0                   | 97.3                | 97.5           |
| Texas                | 97.2            | 98.6                    | 99.3                    | 98.6                    | 99.7                | 98.8           |
| Utah                 | 94.5            | 98.1                    | 97.3                    | 95.7                    | 98.7                | 97.5           |
| Vermont              | 97.4            | 99.4                    | 99.2                    | 97.7                    | 99.6                | 98.8           |
| Virginia             | 93.7            | 98.3                    | 95.6                    | 98.1                    | 98.6                | 97.3           |
| Washington           | 98.7            | 99.2                    | 99.1                    | 98.9                    | 99.6                | 99.2           |
| West Virginia        | 98.4            | 99.7                    | 100.0                   | 100.0                   | 99.7                | 99.5           |
| Wisconsin            | 98.5            | 98.4                    | 98.6                    | 98.1                    | 99.6                | 98.8           |
| Wyoming              | 95.6            | 98.8                    | 99.4                    | 97.8                    | 99.3                | 98.3           |
| Total United States  | 94.9            | 97.0                    | 97.3                    | 97.7                    | 98.2                | 97.1           |

Note: Income categories use 1984 dollars. For a conversion to current-year dollars, consult Table 6.3.

Source: U.S. Census Bureau, Current Population Survey (March CPS Supplement).

Table 6.9 – Internet Use by Selected Characteristics, 2019

|                                  | Percent with high-speed Internet subscription <sup>1</sup> |
|----------------------------------|--|
| All Households                   | 86.4   |
| Household Income <sup>2</sup>    |  |
| Less than \$20,000               | 64.2   |
| \$20,000 - \$74,999              | 84.1   |
| \$75,000 or more                 | 95.6   |
| Metropolitan Status <sup>3</sup> |  |
| Metropolitan Area                | 87.6   |
| Nonmetropolitan Area             | 79.4   |
| Urban / Rural Area <sup>3</sup>  |  |
| Rural Area                       | 82.3   |
| Urban Area                       | 87.4   |

| All Individuals                       | 89.4 |
|---------------------------------------|------|
| Age <sup>4</sup>                      |      |
| Under 18                              | 92.6 |
| 18 - 64                               | 91.3 |
| 65 +                                  | 78.0 |
| Race and Hispanic Origin <sup>5</sup> |      |
| White alone, non-Hispanic             | 90.1 |
| Black alone, non-Hispanic             | 83.9 |
| Asian alone, non-Hispanic             | 94.9 |
| Hispanic (of any race)                | 87.6 |
| American Indian                       | 77.9 |

High-speed service includes all Internet service other than dial-up.

Source: Census Bureau, American Community Survey, Table B28004

Source: Census Bureau, American Community Survey, Table B28002

Source: Census Bureau, American Community Survey, Table B28005

Source: Census Bureau, American Community Survey, Tables B28009 (A, B, C, D, and I) Note: 2020 Data unable to be presented due to Covid-19 impacts on ACS 1 year data.

Table 6.10 – High-Speed Internet Penetration for Households by State, 2015 – 2019<sup>1</sup>

|                                | 2015         | 2016         | 2017         | 2018         | 2019         |
|--------------------------------|--------------|--------------|--------------|--------------|--------------|
| Alabama                        | 68.3         | 74.7         | 78.1         | 79.3         | 81.6         |
| Alaska                         | 81.7         | 85.7         | 86.1         | 87.5         | 87.8         |
|                                |              |              |              |              |              |
| Arizona                        | 78.1         | 83.1         | 85.7         | 86.2         | 87.2         |
| Arkansas                       | 64.2         | 70.9         | 73.0         | 76.9         | 79.8         |
| California                     | 81.3         | 85.4         | 87.7         | 88.7         | 89.8         |
| Colorado                       | 83.0         | 86.9         | 88.2         | 89.4         | 91.0         |
| Connecticut                    | 82.0         | 84.1         | 85.5         | 87.0         | 88.5         |
| Delaware                       | 77.4         | 83.3         | 86.2         | 88.4         | 88.8         |
| District of Columbia           | 76.8         | 79.8         | 82.7         | 86.1         | 87.3         |
| Florida                        | 77.5         | 81.2         | 83.2         | 85.2         | 86.8         |
| Georgia                        | 74.8         | 80.7         | 82.7         | 83.7         | 85.0         |
| Hawaii                         | 82.2         | 83.2         | 84.5         | 85.7         | 88.0         |
| Idaho                          | 76.7         | 79.4         | 82.5         | 86.2         | 88.4         |
| Illinois                       | 76.9         | 82.0         | 83.6         | 85.1         | 86.0         |
| Indiana                        | 73.3         | 79.2         | 81.2         | 82.8         | 83.9         |
| Iowa                           | 75.0         | 79.6         | 81.8         | 83.6         | 83.9         |
| Kansas                         | 76.2         | 80.3         | 83.0         | 84.3         | 85.2         |
| Kentucky                       | 70.9         | 77.3         | 78.9         | 81.7         | 83.1         |
| Louisiana                      | 68.7         | 74.4         | 75.6         | 78.1         | 80.6         |
| Maine                          | 77.1         | 80.7         | 82.0         | 84.0         | 84.9         |
| Maryland                       | 81.4         | 85.8         | 87.7         | 88.2         | 89.1         |
| Massachusetts                  | 82.6         | 85.5         | 86.8         | 87.9         | 88.9         |
| Michigan                       | 74.4         | 80.5         | 82.8         | 84.1         | 85.9         |
| Minnesota                      | 79.5         | 83.5         | 85.9         | 86.8         | 87.9         |
| Mississippi                    | 61.0         | 70.7         | 73.4         | 76.3         | 76.8         |
| Missouri                       | 73.3         | 79.3         | 81.3         | 82.9         | 84.8         |
| Montana                        | 75.0         | 78.9         | 81.3         | 83.6         | 85.0         |
| Nebraska                       | 78.1         | 81.6         | 84.4         | 85.7         | 87.0         |
| Nevada                         | 79.0         | 80.9         | 83.4         | 85.9         | 85.6         |
| New Hampshire                  | 84.5         | 86.4         | 88.4         | 89.1         | 89.2         |
| New Jersey                     | 81.6         | 84.2         | 86.8         | 88.0         | 89.4         |
| New Mexico                     | 67.2         | 73.7         | 76.4         | 76.9         | 78.5         |
| New York                       | 77.8         | 81.7         | 83.4         | 85.3         | 86.2         |
| North Carolina                 | 74.1         | 79.0         | 81.6         | 83.5         | 85.3         |
| North Dakota                   | 76.3         | 81.4         | 81.3         | 80.3         | 84.1         |
| Ohio                           | 76.1         | 80.9         | 83.2         | 84.5         | 85.4         |
| Oklahoma                       | 70.8         | 77.2         | 79.7         | 81.9         | 83.6         |
| Oregon                         | 80.8         | 84.9         | 86.8         | 87.9         | 89.0         |
| Pennsylvania                   | 75.7         | 80.5         | 81.5         | 84.1         | 85.6         |
|                                | 78.2         | 82.8         | 85.5         | 85.3         |              |
| Rhode Island<br>South Carolina | 69.9         | 77.0         | 79.2         | 81.5         | 87.7<br>82.7 |
| South Dakota                   | 75.3         | 77.0<br>79.5 | 80.6         | 82.1         | 85.0         |
| Tennessee                      | 73.3<br>70.2 | 79.3<br>76.7 | 80.6<br>79.4 | 82.1<br>82.1 | 83.0<br>83.0 |
| Texas                          | 70.2<br>74.3 | 80.5         | 83.3         | 84.5         | 86.3         |
| Utah                           | 83.1         | 85.4         | 83.3<br>87.8 | 90.0         | 90.8         |
| Vermont                        | 78.7         | 81.1         | 81.4         | 82.5         | 83.4         |
|                                | 78.6         |              |              | 85.6         | 86.7         |
| Virginia<br>Washington         | /8.6<br>83.9 | 83.4         | 84.8         |              |              |
| Washington                     |              | 87.4         | 89.1         | 90.0         | 91.2         |
| West Virginia                  | 69.8         | 74.2         | 76.0         | 79.0         | 81.0         |
| Wisconsin                      | 76.9         | 81.3         | 83.3         | 84.4         | 86.0         |
| Wyoming                        | 77.8         | 83.2         | 83.7         | 85.7         | 87.8         |
| Total United States            | 76.7         | 81.4         | 83.5         | 85.1         | 86.4         |
| Puerto Rico                    | 51.8         | 59.3         | 60.9         | 62.2         | 68.2         |

High-speed Internet service includes all Internet service other than dial-up.

Source: Census Bureau, American Community Survey, Table B28002

Note: 2020 Data unable to be presented due to Covid-19 impacts on ACS 1 year data.

Table 6.11 – Residential Fixed Connections per Household by Speed Tier as of December 31, 2020 (Households and Subscribers in thousands)

|                       |             | At least 200 Kl | ne in any | 10 Mbps Do  | bealaw    | 25 Mbps Do  | wnload    | 100 Mbps Download |           |  |
|-----------------------|-------------|-----------------|-----------|-------------|-----------|-------------|-----------|-------------------|-----------|--|
|                       | Households  | direction       |           | 1 Mbps up   |           | 3 Mbps U    |           | 10 Mbps 1         |           |  |
|                       | Trouscholus | Subscribers     | Ratio     | Subscribers | Ratio     | Subscribers | Ratio     | Subscribers       | Ratio     |  |
| Alabama               | 1.867       | 1,551           | 0.83      | 1,382       | 0.74      | 1.180       | 0.63      | 888               | 0.48      |  |
| Alaska                | 253         | 221             | 0.87      | 201         | 0.80      | 151         | 0.60      | *                 | *         |  |
| American Samoa        | 10          | *               | *         | *           | *         | *           | *         | 0                 | 0.00      |  |
| Arizona               | 2,571       | 2,442           | 0.95      | 2,203       | 0.86      | 2,012       | 0.78      | 1,408             | 0.55      |  |
| Arkansas              | 1,158       | 905             | 0.78      | 776         | 0.67      | 629         | 0.54      | 370               | 0.32      |  |
| California            | 3,044       | 2,328           | 0.95      | 1,764       | 0.90      | 871         | 0.83      | 7,605             | 0.58      |  |
| Colorado              | 2,148       | 2,106           | 0.98      | 1,917       | 0.89      | 1,811       | 0.84      | 915               | 0.43      |  |
| Connecticut           | 1,370       | 1,304           | 0.95      | 1,246       | 0.91      | 1,094       | 0.80      | 735               | 0.54      |  |
| Delaware              | 363         | 380             | 1.05      | 371         | 1.02      | 366         | 1.01      | 221               | 0.61      |  |
| District of Columbia  | 284         | 273             | 0.96      | 265         | 0.94      | 261         | 0.92      | 161               | 0.57      |  |
| Florida               | 7,736       | 8.076           | 1.04      | 7,717       | 1.00      | 6,946       | 0.92      | 5,327             | 0.69      |  |
|                       | 3,758       | 3,469           | 0.92      | 3,230       | 0.86      | 2,803       | 0.75      | 2,057             | 0.55      |  |
| Georgia               |             | 3,409           | 0.92      | 3,230       | v.80<br>* | 2,803       | 0.73<br>* | 2,037             | 0.55<br>* |  |
| Guam                  | 42          |                 |           | -           |           | *           | *         | *                 | *         |  |
| Hawaii                | 459         | 486             | 1.06      | 472         | 1.03      |             |           |                   |           |  |
| Idaho                 | 630         | 571             | 0.91      | 470         | 0.75      | 381         | 0.60      | 262               | 0.42      |  |
| Illinois              | 4,846       | 4,214           | 0.87      | 3,955       | 0.82      | 3,347       | 0.69      | 2,347             | 0.48      |  |
| Indiana               | 2,570       | 2,203           | 0.86      | 2,003       | 0.78      | 1,680       | 0.65      | 1,153             | 0.45      |  |
| Iowa                  | 1,265       | 1,049           | 0.83      | 898         | 0.71      | 793         | 0.63      | 563               | 0.45      |  |
| Kansas                | 1,129       | 978             | 0.87      | 893         | 0.79      | 766         | 0.68      | 533               | 0.47      |  |
| Kentucky              | 1,734       | 1,478           | 0.85      | 1,335       | 0.77      | 1,170       | 0.67      | 881               | 0.51      |  |
| Louisiana             | 1,739       | 1,426           | 0.82      | 1,303       | 0.75      | 1,116       | 0.64      | 792               | 0.46      |  |
| Maine                 | 559         | 564             | 1.01      | 506         | 0.91      | 423         | 0.76      | 339               | 0.61      |  |
| Maryland              | 2,205       | 2,134           | 0.97      | 2,078       | 0.94      | 2,024       | 0.92      | 1,216             | 0.55      |  |
| Massachusetts         | 2,617       | 2,522           | 0.96      | 2,450       | 0.94      | 2,416       | 0.92      | 1,475             | 0.56      |  |
| Michigan              | 3,935       | 3,434           | 0.87      | 3,200       | 0.81      | 2,760       | 0.70      | 1,891             | 0.48      |  |
| Minnesota             | 2,185       | 1,949           | 0.89      | 1,739       | 0.80      | 1,594       | 0.73      | 934               | 0.43      |  |
| Mississippi           | 1,104       | 824             | 0.75      | 711         | 0.64      | 533         | 0.48      | 307               | 0.28      |  |
| Missouri              | 2,414       | 2,038           | 0.84      | 1,798       | 0.74      | 1,558       | 0.65      | 1,219             | 0.51      |  |
| Montana               | 427         | 385             | 0.90      | 331         | 0.77      | 284         | 0.66      | 213               | 0.50      |  |
| Nebraska              | 759         | 655             | 0.86      | 600         | 0.79      | 529         | 0.70      | 400               | 0.53      |  |
| Nevada                | 1,098       | 1,070           | 0.97      | 1,015       | 0.92      | 924         | 0.84      | 715               | 0.65      |  |
| New Hampshire         | 532         | 550             | 1.03      | 522         | 0.98      | 488         | 0.92      | 293               | 0.55      |  |
| New Jersey            | 3,231       | 3,143           | 0.97      | 3,074       | 0.95      | 3,020       | 0.93      | 2,216             | 0.69      |  |
| New Mexico            | 780         | 677             | 0.87      | 547         | 0.70      | 487         | 0.63      | 197               | 0.25      |  |
| New York              | 7,343       | 6,630           | 0.90      | 6,499       | 0.89      | 6,199       | 0.84      | 5,529             | 0.75      |  |
| North Carolina        | 3,965       | 3,783           | 0.95      | 3,445       | 0.87      | 3,214       | 0.81      | 2,705             | 0.68      |  |
| North Dakota          | 318         | 276             | 0.87      | 265         | 0.83      | 249         | 0.78      | 195               | 0.62      |  |
| Northern Mariana Isl. | 16          | *               | *         | *           | *         | *           | *         | 0                 | 0.00      |  |
| Ohio                  | 4,676       | 4,122           | 0.88      | 3,823       | 0.82      | 3,385       | 0.72      | 2,481             | 0.53      |  |
| Oklahoma              | 1,480       | 1,187           | 0.80      | 1,063       | 0.72      | 902         | 0.61      | 632               | 0.43      |  |
| Oregon                | 1,611       | 1,487           | 0.92      | 1,353       | 0.84      | 1,263       | 0.78      | 692               | 0.43      |  |
| Pennsylvania          | 5,053       | 4,535           | 0.90      | 4,235       | 0.84      | 4.078       | 0.78      | 2,391             | 0.43      |  |
| Puerto Rico           | 1,192       | 670             | 0.56      | 585         | 0.49      | 355         | 0.30      | 2,371             | *         |  |
| Rhode Island          | 410         | 393             | 0.96      | 390         | 0.95      | 380         | 0.93      | 323               | 0.79      |  |
| South Carolina        | 1.921       | 1,790           | 0.98      | 1,677       | 0.93      | 1,489       | 0.93      | 1,200             | 0.79      |  |
|                       | 344         | 297             | 0.95      | 285         | 0.83      | 270         | 0.79      | 1,200             | 0.56      |  |
| South Dakota          |             | 2,273           | 0.88      | 2,128       | 0.83      |             | 0.79      | 1,406             | 0.54      |  |
| Tennessee             | 2,597       |                 |           |             |           | 1,866       |           |                   |           |  |
| Texas                 | 9,691       | 8,994           | 0.93      | 8,544       | 0.88      | 7,722       | 0.80      | 5,580             | 0.58      |  |
| Utah                  | 977         | 946             | 0.97      | 867         | 0.89      | 801         | 0.82      | 426               | 0.44      |  |
| Vermont               | 260         | 261             | 1.01      | 225         | 0.87      | 187         | 0.72      | 91                | 0.35      |  |
| Virgin Islands        | 43          | *               | *         | 17          | 0.40      |             | *         | *                 | *         |  |
| Virginia              | 3,151       | 2,864           | 0.91      | 2,689       | 0.85      | 2,572       | 0.82      | 1,747             | 0.55      |  |
| Washington            | 2,848       | 2,714           | 0.95      | 2,487       | 0.87      | 2,344       | 0.82      | 1,230             | 0.43      |  |
| West Virginia         | 732         | 571             | 0.78      | 468         | 0.64      | 400         | 0.55      | 241               | 0.33      |  |
| Wisconsin             | 2,358       | 2,083           | 0.88      | 1,896       | 0.80      | 1,651       | 0.70      | 1,303             | 0.55      |  |
| Wyoming               | 230         | 206             | 0.90      | 183         | 0.80      | 163         | 0.71      | 111               | 0.48      |  |
| Total                 | 122,046     | 111,599         | 0.92      | 104,175     | 0.85      | 94,429      | 0.77      | 66,778            | 0.55      |  |
|                       |             |                 |           |             |           |             |           |                   |           |  |

*Note*: Mbps = megabits per second and kbps = kilobits per second. \* = Data withheld to maintain firm confidentiality. *Note*: Column Ratio = The ratio of the reported number of fixed residential connections (from FCC Form 477) to the estimated number of households (from the 5-year ACS). This is a loose estimate of the share of households with fixed-location connections and is not bounded by 1—the numerator and denominator of this ratio are both themselves estimates and come from different sources.

Note: Figures may not sum to totals due to rounding.

*Sources*: FCC Form 477 (Connections); 2014-2018 ACS 5 - Year Estimates (Households for the fifty states, District of Columbia and Puerto Rico) Census 2010 (Housing Units for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Table 6.12 – Telephone Service, Internet Access, Telephone Expenses, and Internet Expenses in Low-Income Households

| Percent of Low-Income Households with Telephone / Internet Services: 2019 |      |      |  |  |  |  |  |
|---|------|------|--|--|--|--|--|
| Low-Income Group 1 Low-Income Group 2                                     |      |      |  |  |  |  |  |
| Telephone Service   | 97.2 | 98.4 |  |  |  |  |  |
| Internet Access   | 73.9 | 80.5 |  |  |  |  |  |

| Low-Income Household Expenses for Telephone/Cellular Phone/Internet Services as a Percent of Income After Taxes: 2020 |     |     |  |  |  |  |  |  |
|---|-----|-----|--|--|--|--|--|--|
| Low-Income Group 1 Low-Income Group 2   |     |     |  |  |  |  |  |  |
| Telephone Expenses <sup>1</sup>   |     |     |  |  |  |  |  |  |
| All   | 3.0 | 3.3 |  |  |  |  |  |  |
| With Expenses Only  | 3.5 | 3.6 |  |  |  |  |  |  |
| Cellular Phone Expenses   |     |     |  |  |  |  |  |  |
| All   | 2.6 | 2.7 |  |  |  |  |  |  |
| With Expenses Only  | 3.3 | 3.5 |  |  |  |  |  |  |
| Internet Expenses   |     |     |  |  |  |  |  |  |
| All   | 1.3 | 1.4 |  |  |  |  |  |  |
| With Expenses Only  | 1.7 | 1.9 |  |  |  |  |  |  |

All statistics between group 1 and group 2 are statistically significantly different at a confidence level of 99.9%.

The telephone expenses include residential phone service, VOIP, phone cards, and cellular phone service.

Note: Group 1 contains occupied housing units where the household income is less than or equal to 135% of the 2020 Federal Poverty Guideline for the household. Group 2 contains occupied housing units where household income is greater than 135% of the Federal Poverty Guideline, but less than or equal to 200% of the Federal Poverty Guideline for that Household.

*Note*: Expenses are calculated for everyone in the income groups (All) and for only those who have telephone or internet expenses in the income groups (With Expenses Only).

Note: The 2016 Lifeline Modernization Order included affordability of voice and broadband service as a component of the program's goals and directed WCB (Wireline Competition Bureau) to measure the extent to which voice and broadband service expenditures exceed two percent of low-income consumers' disposable household income as compared to the next highest income group. Lifeline and Link Up Reform and Modernization, et al., WC Docket No. 11-42 et al., Third Report and Order, Further Report and Order, and Order on Reconsideration, 31 FCC Rcd 3962, 4112, para. 408 (2016).

*Note*: 2020 Household data unable to be presented due to Covid-19 impacts on ACS PUMS data. *Source*: American Community Survey 2019 Public Use Microdata Sample (PUMS) data for telephone service and internet access and Consumer Expenditure Survey 2020 public-use microdata (PUMD) for telephone and internet expenses and after-tax income.

Table 6.13 – Switched Access Lines and Interconnected VoIP Subscribers for ILECs (in Thousands)

|               |       | Rate-of-Return Carrie                                 | ers                                     |                    |        |
|---------------|-------|---|---|--------------------|--------|
|               | Total | A-CAM/Alaska Plan<br>Percentage Estimate <sup>1</sup> | Legacy Percentage Estimate <sup>1</sup> | Price Cap Carriers | Total  |
| December 2010 | 4,635 | T or coming assumed                                   |   | 92,862             | 97,497 |
| December 2011 | 4,495 |   |   | 84,932             | 89,427 |
| December 2012 | 4,268 |   |   | 77,846             | 82,114 |
| December 2013 | 4,123 |   |   | 70,959             | 75,082 |
| December 2014 | 3,858 |   |   | 65,566             | 69,424 |
| December 2015 | 3,749 |   |   | 59,930             | 63,680 |
| December 2016 | 3,697 | 35  | 65                                      | 54,564             | 58,262 |
| December 2017 | 3,553 | 34  | 66                                      | 49,468             | 53,022 |
| December 2018 | 3,377 | 31  | 69                                      | 43,878             | 47,256 |
| December 2019 | 3,185 | 41  | 59                                      | 39,022             | 42,207 |
| December 2020 | 3,017 | 41  | 59                                      | 34,161             | 37,178 |

<sup>&</sup>lt;sup>1</sup> A-CAM and Legacy Carrier lines are estimated based on data from NECA's Annual USF filing. A-CAM II carriers are included in legacy carriers prior to 2019 and in A-CAM/Alaska Plan carriers beginning in 2019.

*Notes*: ILEC stands for Incumbent Local Exchange Carrier. A-CAM stands for Alternative Connect America Cost Model. Data from 2014-2019 may be revised from earlier Monitoring Reports due to respondents' refiling FCC Form 477

Source: FCC Form 477 Submissions.

Table 6.14 – Fixed Connections for ILECs (in Thousands)

| Rate-of-Return Carriers | Residential | Business | Total |
|-------------------------|-------------|----------|-------|
| At Least 4 Mbps         |             |          |       |
| December 2015           | 1,355       | 146      | 1,500 |
| December 2016           | 1,599       | 164      | 1,764 |
| December 2017           | 1,815       | 191      | 2,005 |
| December 2018           | 2,083       | 211      | 2,294 |
| December 2019           | 2,277       | 222      | 2,498 |
| December 2020           | 2,585       | 240      | 2,825 |
| At Least 10 Mbps        |             |          |       |
| December 2015           | 853         | 90       | 943   |
| December 2016           | 1,120       | 114      | 1,234 |
| December 2017           | 1,421       | 150      | 1,571 |
| December 2018           | 1,753       | 177      | 1,930 |
| December 2019           | 2,023       | 196      | 2,219 |
| December 2020           | 2,381       | 219      | 2,601 |
| At Least 25 Mbps        |             |          |       |
| December 2015           | 264         | 22       | 286   |
| December 2016           | 417         | 35       | 452   |
| December 2017           | 715         | 61       | 776   |
| December 2018           | 1,016       | 90       | 1,106 |
| December 2019           | 1,343       | 121      | 1,464 |
| December 2020           | 1,769       | 154      | 1,924 |

| Price Cap Carriers | Residential | Business | Total  |
|--------------------|-------------|----------|--------|
| At Least 4 Mbps    |             |          |        |
| December 2015      | 19,169      | 1,426    | 20,595 |
| December 2016      | 20,692      | 1,550    | 22,242 |
| December 2017      | 22,277      | 1,694    | 23,972 |
| December 2018      | 23,454      | 1,762    | 25,216 |
| December 2019      | 23,879      | 1,772    | 25,650 |
| December 2020      | 25,014      | 1,813    | 26,827 |
| At Least 10 Mbps   |             |          |        |
| December 2015      | 16,430      | 1,211    | 17,641 |
| December 2016      | 17,946      | 1,338    | 19,284 |
| December 2017      | 19,972      | 1,505    | 21,477 |
| December 2018      | 21,522      | 1,596    | 23,119 |
| December 2019      | 22,309      | 1,635    | 23,945 |
| December 2020      | 23,812      | 1,698    | 25,510 |
| At Least 25 Mbps   |             |          |        |
| December 2015      | 7,282       | 511      | 7,794  |
| December 2016      | 8,904       | 576      | 9,480  |
| December 2017      | 12,350      | 754      | 13,104 |
| December 2018      | 14,976      | 913      | 15,888 |
| December 2019      | 16,702      | 999      | 17,701 |
| December 2020      | 18,938      | 1,091    | 20,029 |

*Notes*: ILEC stands for Incumbent Local Exchange Carrier. All connections below 25 Mbps have a minimum upstream speed of 1 Mbps. All connections with at least 25 Mbps have a minimum upstream of 3 Mbps. Data from 2015 - 2019 may be revised from the 2020 Monitoring Report due to respondents' refiling of Form 477. Figures may not sum to totals due to rounding.

Source: FCC Form 477.

Table 6.15 – Fixed Deployments for ILECs (in Thousands)

| Rate-of-Return Carriers | # of Deployed Census | Population in Deployed | Housing Units in              |
|-------------------------|----------------------|------------------------|-------------------------------|
| Rate-of-Return Carriers | Blocks               | Census Blocks          | <b>Deployed Census Blocks</b> |
| At Least 4 Mbps         |                      |                        |                               |
| December 2015           | 854                  | 9,549                  | 4,463                         |
| December 2016           | 894                  | 9,996                  | 4,685                         |
| December 2017           | 926                  | 10,300                 | 4,833                         |
| December 2018           | 940                  | 10,358                 | 4,853                         |
| December 2019           | 987                  | 10,810                 | 5,071                         |
| December 2020           | 988                  | 10,854                 | 5,115                         |
| At Least 10 Mbps        |                      |                        |                               |
| December 2015           | 733                  | 8,730                  | 4,057                         |
| December 2016           | 788                  | 9,349                  | 4,363                         |
| December 2017           | 839                  | 9,767                  | 4,573                         |
| December 2018           | 859                  | 9,848                  | 4,620                         |
| December 2019           | 936                  | 10,566                 | 4,953                         |
| December 2020           | 936                  | 10,575                 | 4,977                         |
| At Least 25 Mbps        |                      |                        |                               |
| December 2015           | 435                  | 5,593                  | 2,594                         |
| December 2016           | 499                  | 6,512                  | 3,035                         |
| December 2017           | 571                  | 7,227                  | 3,379                         |
| December 2018           | 606                  | 7,617                  | 3,557                         |
| December 2019           | 724                  | 8,798                  | 4,111                         |
| December 2020           | 784                  | 9,418                  | 4,417                         |

| Price Cap Carriers | # of Deployed Census | Population in Deployed | Housing Units in              |
|--------------------|----------------------|------------------------|-------------------------------|
| Frice Cap Carriers | Blocks               | Census Blocks          | <b>Deployed Census Blocks</b> |
| At Least 4 Mbps    |                      |                        |                               |
| December 2015      | 2,990                | 189,794                | 79,810                        |
| December 2016      | 3,615                | 209,928                | 88,054                        |
| December 2017      | 3,954                | 228,951                | 96,385                        |
| December 2018      | 3,931                | 229,421                | 96,704                        |
| December 2019      | 4,162                | 235,443                | 99,180                        |
| December 2020      | 5,089                | 270,067                | 114,500                       |
| At Least 10 Mbps   |                      |                        |                               |
| December 2015      | 2,904                | 187,939                | 78,990                        |
| December 2016      | 3,361                | 200,943                | 84,327                        |
| December 2017      | 3,791                | 224,541                | 94,470                        |
| December 2018      | 3,783                | 225,864                | 95,137                        |
| December 2019      | 4,083                | 233,514                | 98,327                        |
| December 2020      | 4,627                | 251,684                | 106,475                       |
| At Least 25 Mbps   |                      |                        |                               |
| December 2015      | 942                  | 69,608                 | 28,865                        |
| December 2016      | 1,842                | 144,462                | 59,386                        |
| December 2017      | 2,167                | 165,184                | 68,091                        |
| December 2018      | 2,284                | 172,972                | 71,625                        |
| December 2019      | 2,548                | 183,494                | 76,099                        |
| December 2020      | 3,105                | 201,807                | 84,305                        |

*Note*: ILEC stands for Incumbent Local Exchange Carrier. All connections below 25 Mbps have a minimum upstream speed of 1 Mbps. All connections of at least 25 Mbps have a minimum upstream of 3 Mbps. *Note*: December 2019 data based upon updated Study Area Boundaries.

Source: FCC Form 477 Submissions.

Table 6.16 – Overview of Broadband Deployment by High-Cost Support Mechanism

|                  | Obligations <sup>1</sup> |           |           |                   |                   |        |         |        |          |          |                         |                       |
|------------------|--------------------------|-----------|-----------|-------------------|-------------------|--------|---------|--------|----------|----------|-------------------------|-----------------------|
| Fund             | 4/1                      | 10/1      | 25/3      | 25/5 <sup>2</sup> | 50/5 <sup>2</sup> | 100/52 | 100/20  | 100/25 | 1000/100 | 1000/500 | Subtotal<br>Obligations | Reasonable<br>Request |
| ACAM             | 26,930                   | 170,884   | 452,954   | 0                 | 0                 | 0      | 0       | 0      | 0        | 0        | 650,768                 | 65,707                |
| ACAM II          | 24,042                   | 0         | 363,452   | 0                 | 0                 | 0      | 0       | 0      | 0        | 0        | 387,494                 | 67,840                |
| AK Plan          | 1,463                    | 12,414    | 49,665    | 0                 | 0                 | 0      | 0       | 0      | 0        | 0        | 63,542                  | 0                     |
| CAFBLS           | 0                        | 0         | 474,207   | 0                 | 0                 | 0      | 0       | 0      | 0        | 0        | 474,207                 | 0                     |
| CAFII            | 0                        | 3,655,908 | 0         | 0                 | 0                 | 0      | 0       | 0      | 0        | 0        | 3,655,908               | 0                     |
| CAFII AUC        | 0                        | 368       | 359,033   | 0                 | 0                 | 0      | 254,892 | 0      | 0        | 134,656  | 748,949                 | 0                     |
| RBE <sup>4</sup> | 0                        | 1,679     | 23,183    | 0                 | 0                 | 0      | 0       | 0      | 0        | 0        | 24,862                  | 0                     |
| Total            | 52,435                   | 3,841,253 | 1,722,494 | 0                 | 0                 | 0      | 254,892 | 0      | 0        | 134,656  | 6,005,730               | 133,547               |

|                  | Deployed Locations Reported in the HUBB <sup>1</sup> |           |         |         |       |       |         |         |          |          |  |  |
|------------------|--|-----------|---------|---------|-------|-------|---------|---------|----------|----------|--|--|
| Fund             | 4/1  | 10/1      | 25/3    | 25/5    | 50/5  | 100/5 | 100/20  | 100/25  | 1000/100 | 1000/500 | Total<br>Broadband<br>Locations<br>Deployed <sup>3</sup> | Total Deployed<br>Satisfying<br>Obligations <sup>3</sup> |
| ACAM             | 32,057   | 152,074   | 109,199 | 63,584  | 0     | 0     | 7,292   | 46,695  | 0        | 53,977   | 464,878  | 389,352  |
| ACAM II          | 7,762  | 27,383    | 96,065  | 15,603  | 0     | 0     | 8,402   | 72,577  | 0        | 98,313   | 326,105  | 273,146  |
| AK Plan          | 521  | 2,443     | 19,130  | 0       | 9,720 | 4,066 | 0       | 0       | 364      | 0        | 36,244   | 34,063   |
| CAFBLS           | 3,546  | 38,152    | 128,872 | 71,371  | 0     | 0     | 10,804  | 176,232 | 0        | 324,066  | 753,043  | 347,345  |
| CAFII            | 0  | 3,276,317 | 131,643 | 36,902  | 0     | 0     | 95,123  | 7,310   | 0        | 7,959    | 3,555,254  | 3,322,736  |
| CAFII AUC        | 0  | 94        | 21,814  | 2,202   | 0     | 0     | 12,091  | 1,404   | 0        | 46,902   | 84,507   | 79,937   |
| RBE <sup>4</sup> | 0  | 786       | 495     | 15,195  | 0     | 0     | 0       | 2,665   | 0        | 2,319    | 21,460   | 21,198   |
| Total            | 43,886   | 3,497,249 | 507,218 | 204,857 | 9,720 | 4,066 | 133,712 | 306,883 | 364      | 533,536  | 5,241,491  | 4,467,777  |

- Obligations and deployment are in megabits per second (Mbps). For both obligations and deployments, 4/1 and 6/1 have been combined. Actual obligation and deployment speeds for each study area are listed in Supplemental Table S.6.6. Data from Uniendo a Puerto Rico, Connect USVI Fund Stage 2 Competition, and Rural Digital Opportunity Fund are not included because the carriers have not yet reached an interim deployment obligation.
- Rural Digital Opportunity Fund obligations have not been included here because a number of applications are still under review, so their final deployment obligations and reporting deadlines remain pending. Authorized carriers' entry of initial deployment information into the HUBB is not required until March 1, 2022.
  - Carriers may satisfy slower speed class obligations with higher speed deployments. Where carriers have deployed more than their required obligations for a given speed class, only the required deployments are included in the Total Deployed Satisfying Obligations.
- Some carriers receiving RBE support had their obligations and deployments reduced. For details, see note in Supplementary Table 6.6.

*Source:* USAC HUBB Data as of March 31, 2021. A carrier's deployment data must be reported into the HUBB by March 1 of the year following the deployment.

Table 6.17 – High Cost Supported Broadband Deployment by State

|                          |             |                    | Total Deployed Satisfying |
|--------------------------|-------------|--------------------|---------------------------|
| State                    | Obligations | Locations Deployed | Obligations <sup>2</sup>  |
| Alabama                  | 172,799     | 171,395            | 144,102                   |
| Alaska                   | 102,864     | 57,973             | 55,668                    |
| American Samoa           | 4,065       | 142                | 142                       |
| Arizona                  |             | 39,963             | 35,252                    |
|                          | 76,879      |                    | -                         |
| Arkansas                 | 181,956     | 173,682            | 156,110                   |
| California               | 303,886     | 237,995            | 220,205                   |
| Colorado                 | 79,612      | 59,574             | 58,133                    |
| Connecticut              | 1,388       | 990                | 990                       |
| Delaware                 | 1,343       | 1,770              | 1,338                     |
| Florida                  | 95,889      | 111,656            | 84,199                    |
| Georgia                  | 191,847     | 191,034            | 160,338                   |
| Guam                     | 10,972      | 10,095             | 10,095                    |
| Hawaii                   | 15,017      | 9,480              | 9,480                     |
| Idaho                    | 51,698      | 34,727             | 33,143                    |
| Illinois                 | 153,838     | 121,534            | 103,401                   |
| Indiana                  | 198,834     | 165,922            | 147,751                   |
| Iowa                     | 184,574     | 147,950            | 135,889                   |
| Kansas                   | 112,798     | 100,428            | 83,909                    |
| Kentucky                 | 184,746     | 217,520            | 170,921                   |
| Louisiana                | 125,087     | 123,828            | 104,884                   |
| Maine                    | 57,721      | 48,243             | 45,565                    |
| Maryland                 | 8,233       | 5.379              | 4.987                     |
| Massachusetts            | 5,758       | 2.792              | 2.737                     |
| Michigan                 |             | 209,371            | •                         |
|                          | 245,938     |                    | 187,357                   |
| Minnesota                | 311,316     | 262,406            | 240,904                   |
| Mississippi              | 185,776     | 180,430            | 157,145                   |
| Missouri                 | 327,396     | 224,619            | 214,196                   |
| Montana                  | 86,072      | 76,270             | 65,175                    |
| Nebraska                 | 82,573      | 67,010             | 61,689                    |
| Nevada                   | 25,877      | 12,513             | 9,975                     |
| New Hampshire            | 16,083      | 18,586             | 14,794                    |
| New Jersey               | 2,691       | 2,538              | 2,047                     |
| New Mexico               | 61,573      | 48,840             | 39,259                    |
| New York                 | 142,190     | 100,275            | 82,726                    |
| North Carolina           | 93,988      | 120,600            | 82,992                    |
| North Dakota             | 57,525      | 72,563             | 51,056                    |
| Northern Mariana Islands | 11,143      | 4,562              | 4,562                     |
| Ohio                     | 187,246     | 165,480            | 157,456                   |
| Oklahoma                 | 157,464     | 84,926             | 57,903                    |
| Oregon                   | 80,381      | 66,442             | 62,261                    |
| Pennsylvania             | 151,039     | 111,013            | 89,239                    |
| Rhode Island             | 165         | 46                 | 46                        |
| South Carolina           | 105,713     | 169,347            | 96,656                    |
| South Dakota             | 70,563      | 63,846             | 53,033                    |
| Tennessee                | 160,444     | 182,609            | 142,708                   |
| Texas                    | 341,198     | 362,312            | 293,279                   |
| Utah                     | I           |                    |                           |
|                          | 33,275      | 49,402             | 21,131                    |
| Vermont                  | 38,469      | 33,099             | 31,428                    |
| Virginia                 | 119,939     | 71,417             | 66,535                    |
| Washington               | 111,850     | 88,364             | 80,816                    |
| West Virginia            | 107,221     | 67,812             | 65,637                    |
| Wisconsin                | 335,710     | 277,070            | 256,082                   |
| Wyoming                  | 33,108      | 13,651             | 10,451                    |
| Nationwide               | 6,005,730   | 5,241,491          | 4,467,777                 |

Obligation and deployment speeds for each study area are listed in Supplemental Table S.6.8. This table includes information for ACAM, ACAMII, AK Plan, CAF BLS, CAF II Model, CAF II Auction and RBE. Data from Uniendo a Puerto Rico, Connect USVI Fund Stage 2 Competition, and Rural Digital Opportunity Fund are not included because the carriers have not yet reached an interim deployment obligation.

<sup>&</sup>lt;sup>2</sup> Carriers may satisfy slower speed class obligations with higher speed deployments. Where carriers have deployed more than their required obligations for a given speed class, only the required deployments are included in the Total Deployed Satisfying Obligations.

*Source:* USAC HUBB Data as of March 31, 2021. A carrier's deployment data must be reported into the HUBB by March 1 of the year following the deployment.



### **Section 7 – Price Indices**

#### **Overview – Price Indices**

This section contains information on telephone price indices using data from the Consumer Price Index (CPI) maintained by the Bureau of Labor Statistics (BLS). The BLS collects information on telephone service as part of the CPI. The monthly price indices represent prices sampled in the middle of the month.

The CPI for telephone services is based on a "market basket" intended to represent the telephone-related expenditures of a typical urban household. It includes both land-line telephone service and wireless telephone service. In January 2010, BLS discontinued collecting four land-line telephone indices, including local charges, long distance charges, interstate toll calls, and intrastate toll calls. These four indices were combined into a single land-line telephone service index, which began in December 2009.

The Producer Price Index (PPI), also published by BLS, continues to release sub-indices for telephone services. We no longer include them in this report because they have become less meaningful as the bundling of telephone services has become more common in the land-line telephone industry.<sup>13</sup>

<sup>&</sup>lt;sup>12</sup> BLS publishes two sets of Consumer Price Indices. The CPI-U, used herein, is based on expenditures of all urban consumers. The CPI-W series is based on expenditures of urban wage earners and clerical workers. Monthly CPI data can be found on the Internet at <a href="https://www.bls.gov/cpi/">www.bls.gov/cpi/</a>.

<sup>&</sup>lt;sup>13</sup> PPI data are available on the BLS website at www.bls.gov/ppi/.

Table 7.1 – Long-Term Changes for Various Price Indices (Compounded Average Percentage Growth Rate)

|  | 1971 - 2020 | 2010 - 2020 |
|--|-------------|-------------|
|  |             |             |
| CPI All Items (SA0)                      | 3.8         | 1.7         |
| CPI All Services (SAS)                   | 4.5         | 2.3         |
| CPI Telephone Services (SEED)            | 1.4         | - 0.8       |
| CPI Major Categories:                    |             |             |
| - Food & Beverages (SAF)                 | 3.9         | 1.9         |
| - Housing (SAH)                          | 4.1         | 2.2         |
| - Apparel (SAA)                          | 1.3         | - 0.4       |
| - Transportation (SAT)                   | 3.4         | 0.7         |
| - Medical Care (SAM)                     | 5.5         | 2.9         |
| - Recreation (SAR)                       | *           | 0.7         |
| - Other Goods & Services (SAG)           | 4.9         | 1.9         |
| CPI Public Transportation (SETG)         | 3.7         | - 1.0       |
| CPI Utility (Piped) Gas Service (SEHF02) | 4.5         | - 0.5       |
| CPI Electricity (SEHF01)                 | 3.8         | 1.2         |
| CPI Water & Sewerage Maint. (SEHG01)     | 5.7         | 4.5         |
| CPI Postage (SEEC01)                     | 4.5         | 3.2         |

<sup>\*</sup> Series not established until 1993.

*Note*: The CPI Telephone Services index was revised in December of 1997. To calculate values in this table, Series MUUR0000SE270A is used for periods prior to this revision and CUUR0000SEED is used for periods after the revision. After each row, the series ID is provided and should be proceeded by CUUR0000 when referencing the series.

*Note*: The Compound Annual Growth Rate is a smoothed rate of growth calculated in three steps. First, divide the ending value by the beginning value. Second, raise the result of that division to a power equal to one divided by the number of years in the period. Finally, subtract 1 from the result of the second step.

Source: Bureau of Labor Statistics.

Table 7.2 – Annual Changes in CPI Telephone Services and all Items Indices

|               | All Goods and<br>Services | Telephone Services | Land-line Telephone<br>Services | Wireless Telephone<br>Services |
|---------------|---------------------------|--------------------|---------------------------------|--------------------------------|
| BLS Series ID | CURR0000SA0               | CUUR0000SEED       | CUUR0000SEED04                  | CUUR0000SEED03                 |
| 2000          | 3.4                       | -2.3               | *                               | -12.3                          |
| 2001          | 1.6                       | 1.3                | *                               | -5.5                           |
| 2002          | 2.4                       | 0.2                | *                               | 0.3                            |
| 2003          | 1.9                       | -2.7               | *                               | -1.3                           |
| 2004          | 3.3                       | -2.5               | *                               | -1.4                           |
| 2005          | 3.4                       | 0.4                | *                               | -1.5                           |
| 2006          | 2.5                       | 1.7                | *                               | 0.0                            |
| 2007          | 4.1                       | 2.1                | *                               | -0.9                           |
| 2008          | 0.1                       | 2.9                | *                               | 0.5                            |
| 2009          | 2.7                       | 1.0                | *                               | -1.1                           |
| 2010          | 1.5                       | -0.9               | 2.2                             | -3.6                           |
| 2011          | 3.0                       | -0.3               | 1.9                             | -2.3                           |
| 2012          | 1.7                       | 0.3                | 1.9                             | -0.8                           |
| 2013          | 1.5                       | 0.0                | 3.0                             | -2.0                           |
| 2014          | 0.8                       | -2.1               | 1.8                             | -4.0                           |
| 2015          | 0.7                       | 0.7                | 2.2                             | 0.0                            |
| 2016          | 2.1                       | -2.8               | 0.9                             | -4.2                           |
| 2017          | 2.1                       | -6.5               | 2.2                             | -10.2                          |
| 2018          | 1.9                       | -2.4               | 0.0                             | -3.2                           |
| 2019          | 2.3                       | 1.6                | 6.9                             | -0.3                           |
| 2020          | 1.4                       | 4.2                | 4.6                             | 4.1                            |

<sup>\*</sup> Series not established until December 2009.

*Note*: Values report the percent change from December of the previous year through December of the year shown. *Source*: Bureau of Labor Statistics.

Table 7.3 – Monthly Consumer Price Indices

(December 2009 = 100)

|                |      | All Goods and Services | Telephone Services | Land-line Telephone<br>Services | Wireless Telephone<br>Services |
|----------------|------|------------------------|--------------------|---------------------------------|--------------------------------|
| BLS Series     | s ID | CUUR0000SA0            | CUUR0000SEED       | CUUR0000SEED04                  | CUUR0000SEED03                 |
| 2017 January   |      | 112.45                 | 94.81              | 115.01                          | 83.98                          |
| February       |      | 112.81                 | 94.21              | 116.45                          | 82.79                          |
| March          |      | 112.90                 | 89.55              | 116.16                          | 77.01                          |
| April          |      | 113.23                 | 88.54              | 116.37                          | 75.68                          |
| May            |      | 113.33                 | 88.33              | 115.70                          | 75.62                          |
| June           |      | 113.43                 | 87.84              | 115.64                          | 75.02                          |
| July           |      | 113.35                 | 87.74              | 116.04                          | 74.78                          |
| August         |      | 113.69                 | 87.74              | 116.17                          | 74.73                          |
| Septembe       | er   | 114.30                 | 87.89              | 115.89                          | 75.01                          |
| October        |      | 114.22                 | 88.17              | 115.94                          | 75.35                          |
| Novembe        | r    | 114.23                 | 88.50              | 116.53                          | 75.58                          |
| Decembe        |      | 114.16                 | 88.67              | 117.34                          | 75.54                          |
| 2018 January   | 1    | 114.78                 | 88.56              | 117.47                          | 75.39                          |
| February       |      | 115.30                 | 88.24              | 117.67                          | 74.98                          |
| March          |      | 115.56                 | 88.21              | 116.73                          | 75.16                          |
| April          |      | 116.02                 | 88.19              | 116.52                          | 75.18                          |
| May            |      | 116.50                 | 88.32              | 116.81                          | 75.26                          |
| June           |      | 116.50                 | 88.36              | 117.12                          | 75.20<br>75.24                 |
|                |      | 116.70                 | 88.48              | 117.79                          | 75.24                          |
| July<br>August |      | 116.76                 | 88.13              | 117.50                          | 73.24                          |
|                |      |                        | 88.21              | 117.94                          |                                |
| Septembe       | er   | 116.90                 | 88.03              |                                 | 74.90                          |
| October        |      | 117.10                 |                    | 116.67                          | 74.97                          |
| Novembe        |      | 116.71                 | 86.63              | 117.06                          | 73.29                          |
| Decembe        | r    | 116.34                 | 86.54              | 117.32                          | 73.13                          |
| 2019 January   |      | 116.56                 | 86.55              | 117.87                          | 73.02                          |
| February       |      | 117.05                 | 86.52              | 118.19                          | 72.92                          |
| March          |      | 117.71                 | 86.52              | 118.59                          | 72.83                          |
| April          |      | 118.34                 | 86.66              | 118.71                          | 72.97                          |
| May            |      | 118.59                 | 86.72              | 119.25                          | 72.92                          |
| June           |      | 118.61                 | 86.89              | 119.69                          | 73.01                          |
| July           |      | 118.81                 | 86.99              | 120.45                          | 72.97                          |
| August         |      | 118.80                 | 86.95              | 120.67                          | 72.87                          |
| Septembe       | er   | 118.90                 | 87.16              | 122.14                          | 72.80                          |
| October        |      | 119.17                 | 87.38              | 123.47                          | 72.76                          |
| Novembe        |      | 119.11                 | 87.80              | 125.03                          | 72.90                          |
| Decembe        | r    | 119.00                 | 87.91              | 125.44                          | 72.94                          |
| 2020 January   |      | 119.46                 | 88.14              | 127.49                          | 72.93                          |
| February       |      | 119.79                 | 88.03              | 127.92                          | 72.77                          |
| March          |      | 119.53                 | 88.03              | 128.00                          | 72.76                          |
| April          |      | 118.73                 | 88.23              | 129.07                          | 72.83                          |
| May            |      | 118.73                 | 88.22              | 128.52                          | 72.88                          |
| June           |      | 119.38                 | 88.10              | 128.17                          | 72.80                          |
| July           |      | 119.38                 | 88.10              | 128.17                          | 72.80                          |
| August         |      | 120.36                 | 91.28              | 127.90                          | 76.03                          |
| Septembe       | er   | 120.53                 | 91.48              | 128.53                          | 76.14                          |
| October        |      | 120.58                 | 91.73              | 130.92                          | 76.11                          |
| Novembe        | er   | 120.50                 | 91.64              | 131.13                          | 75.99                          |
| Decembe        | r    | 120.62                 | 91.58              | 131.24                          | 75.92                          |
| 2021 January   |      | 121.13                 | 91.68              | 132.04                          | 75.93                          |
| February       |      | 121.79                 | 91.84              | 133.30                          | 75.93                          |
| March          |      | 122.66                 | 91.66              | 133.94                          | 75.67                          |
| April          |      | 123.67                 | 91.57              | 133.69                          | 75.61                          |
| May            |      | 124.66                 | 91.77              | 135.19                          | 75.63                          |
| June           |      | 125.81                 | 91.95              | 136.35                          | 75.67                          |
| July           |      | 126.42                 | 91.88              | 136.90                          | 75.54                          |

*Note*: Series values for "All Goods and Services" are converted from the 1982-1984 base index series reported by the Bureau of Labor 'Statistics (BLS). Series values for "Telephone Services" and "Wireless Telephone Services" are converted from the December 1997 base index series reported by BLS. Series are not seasonally adjusted. Series may be referenced via the BLS website with the Series ID listed at the top of each column.

Source: Bureau of Labor Statistics.