# APPENDIX H

**ADOPTION**

**APPENDIX H-1: Adoption Rates for Residential Fixed Terrestrial Broadband Services by State (Dec. 31, 2023)**

**APPENDIX H-2:**  **Subscribership Ratios for Residential Mobile Broadband Services by State
(Dec. 31, 2023)**

**APPENDIX H-3: Mobile Broadband Penetration Rate by State**

**APPX. H-1**

**Adoption Rates for Residential Fixed Terrestrial Broadband Services
by State (Dec. 31, 2023)**

|  | **At Least100/20 Mbps** | **At Least940/500 Mbps** |
| --- | --- | --- |
| **United States** | 53.1% | 26.3% |
|  **Alabama** | 46.9% | 23.2% |
|  **Alaska** | \* | \* |
|  **American Samoa** | 0.0% | NA |
|  **Arizona** | 53.0% | 25.2% |
|  **Arkansas** | 50.3% | 17.6% |
|  **California** | 51.7% | 19.5% |
|  **Colorado** | 50.2% | 22.0% |
|  **Connecticut** | 63.7% | 14.5% |
|  **Delaware** | 70.9% | \* |
|  **District of Columbia** | 67.5% | \* |
|  **Florida** | 53.8% | 20.7% |
|  **Georgia** | 56.6% | 27.6% |
|  **Guam** | \* | 0.0% |
|  **Hawaii** | \* | \* |
|  **Idaho** | 53.2% | 23.8% |
|  **Illinois** | 43.3% | 14.2% |
|  **Indiana** | 47.7% | 17.3% |
|  **Iowa** | 59.9% | 18.9% |
|  **Kansas** | 55.1% | 27.8% |
|  **Kentucky** | 52.0% | 12.6% |
|  **Louisiana** | 41.4% | 22.2% |
|  **Maine** | 25.7% | 2.1% |
|  **Maryland** | 69.8% | \* |
|  **Massachusetts** | 59.2% | 45.1% |
|  **Michigan** | 38.3% | 12.5% |
|  **Minnesota** | 45.3% | 12.3% |
|  **Mississippi** | 55.5% | 31.4% |
|  **Missouri** | 49.6% | 18.3% |
|  **Montana** | 32.0% | 11.4% |
|  **N. Mariana Isl.** | 0.0% | NA |
|  **Nebraska** | 57.1% | 12.3% |
|  **Nevada** | 56.7% | 17.5% |
|  **New Hampshire** | 53.9% | 2.0% |
|  **New Jersey** | 75.7% | \* |
|  **New Mexico** | 34.0% | 17.3% |
|  **New York** | 58.4% | 34.2% |
|  **North Carolina** | 53.4% | 24.9% |
|  **North Dakota** | 84.1% | 8.7% |
|  **Ohio** | 44.7% | 11.6% |
|  **Oklahoma** | 50.2% | 25.9% |
|  **Oregon** | 46.6% | 14.9% |
|  **Pennsylvania** | 58.4% | \* |
|  **Puerto Rico** | 18.6% | 1.5% |
|  **Rhode Island** | 66.4% | \* |
|  **South Carolina** | 53.6% | 16.2% |
|  **South Dakota** | 80.0% | 13.9% |
|  **Tennessee** | 54.5% | 25.8% |
|  **Texas** | 58.4% | 26.2% |
|  **U.S. Virgin Isl.** | \* | NA |
|  **Utah** | 56.1% | 32.1% |
|  **Vermont** | 43.0% | 12.5% |
|  **Virginia** | 63.0% | 55.4% |
|  **Washington** | 50.8% | 23.2% |
|  **West Virginia** | 50.4% | 15.9% |
|  **Wisconsin** | 37.8% | 8.9% |
|  **Wyoming** | 34.1% | 13.2% |

Source: FCC BDC, Dec. 2023; FCC Form 477, Dec. 2023; Staff Block Estimates.

NA: Service is not available in this area. \*: Data not included to maintain confidentiality.

**APPX. H-2**

**Subscribership Ratios for Residential Mobile Broadband Services
by State (Dec. 31, 2023)**

| **State** | **Population(millions)** | **Connections(millions)** | **SubscribershipRatio** |
| --- | --- | --- | --- |
| **United States** | 338.491 | 339.571 | 100.3% |
|  **Alabama** | 5.108 | 4.963 | 97.2% |
|  **Alaska** | 0.733 | 0.694 | 94.6% |
|  **American Samoa** | 0.045 | \* | \* |
|  **Arizona** | 7.431 | 7.273 | 97.9% |
|  **Arkansas** | 3.068 | 2.969 | 96.8% |
|  **California** | 38.965 | 41.986 | 107.8% |
|  **Colorado** | 5.878 | 5.526 | 94.0% |
|  **Connecticut** | 3.617 | 3.746 | 103.6% |
|  **Delaware** | 1.032 | 1.035 | 100.3% |
|  **District of Columbia** | 0.679 | 0.937 | 138.0% |
|  **Florida** | 22.611 | 24.089 | 106.5% |
|  **Georgia** | 11.029 | 11.228 | 101.8% |
|  **Guam** | 0.169 | \* | \* |
|  **Hawaii** | 1.435 | 1.448 | 100.9% |
|  **Idaho** | 1.965 | 1.747 | 88.9% |
|  **Illinois** | 12.550 | 12.902 | 102.8% |
|  **Indiana** | 6.862 | 6.345 | 92.5% |
|  **Iowa** | 3.207 | 2.968 | 92.5% |
|  **Kansas** | 2.941 | 2.813 | 95.7% |
|  **Kentucky** | 4.526 | 4.200 | 92.8% |
|  **Louisiana** | 4.574 | 4.871 | 106.5% |
|  **Maine** | 1.396 | 1.179 | 84.5% |
|  **Maryland** | 6.180 | 6.439 | 104.2% |
|  **Massachusetts** | 7.001 | 6.936 | 99.1% |
|  **Michigan** | 10.037 | 9.531 | 95.0% |
|  **Minnesota** | 5.738 | 5.344 | 93.1% |
|  **Mississippi** | 2.940 | 3.070 | 104.4% |
|  **Missouri** | 6.196 | 5.841 | 94.3% |
|  **Montana** | 1.133 | 0.977 | 86.2% |
|  **N. Mariana Isl.** | 0.051 | \* | \* |
|  **Nebraska** | 1.978 | 1.806 | 91.3% |
|  **Nevada** | 3.194 | 3.346 | 104.8% |
|  **New Hampshire** | 1.402 | 1.252 | 89.3% |
|  **New Jersey** | 9.291 | 10.002 | 107.6% |
|  **New Mexico** | 2.114 | 2.101 | 99.4% |
|  **New York** | 19.571 | 21.348 | 109.1% |
|  **North Carolina** | 10.835 | 9.985 | 92.2% |
|  **North Dakota** | 0.784 | 0.741 | 94.5% |
|  **Ohio** | 11.786 | 11.096 | 94.1% |
|  **Oklahoma** | 4.054 | 3.944 | 97.3% |
|  **Oregon** | 4.233 | 3.951 | 93.3% |
|  **Pennsylvania** | 12.962 | 12.822 | 98.9% |
|  **Puerto Rico** | 3.206 | \* | \* |
|  **Rhode Island** | 1.096 | 1.101 | 100.5% |
|  **South Carolina** | 5.374 | 4.898 | 91.2% |
|  **South Dakota** | 0.919 | 0.832 | 90.5% |
|  **Tennessee** | 7.126 | 6.896 | 96.8% |
|  **Texas** | 30.503 | 32.113 | 105.3% |
|  **U.S. Virgin Isl.** | 0.105 | \* | \* |
|  **Utah** | 3.418 | 2.972 | 87.0% |
|  **Vermont** | 0.647 | 0.520 | 80.3% |
|  **Virginia** | 8.716 | 8.673 | 99.5% |
|  **Washington** | 7.813 | 7.433 | 95.1% |
|  **West Virginia** | 1.770 | 1.616 | 91.3% |
|  **Wisconsin** | 5.911 | 4.861 | 82.2% |
|  **Wyoming** | 0.584 | 0.554 | 94.9% |

 Source: FCC Form 477, Dec. 2023; Staff Block Estimates.

\*: Data not included to maintain confidentiality.

**APPX. H-3**

**Mobile Broadband Penetration Rate by State (2023)**

| **Market Name** | **2020 Census Population** | **2023 Estimated Population** | **Dec. 2023 Market Subscribers** | **2023 Penetration Rate** |
| --- | --- | --- | --- | --- |
| **Alabama** | 5,024,279 |  5,108,468  |  7,885,119  | 154% |
| **Alaska** | 733,391 |  733,406  |  938,038  | 128% |
| **American Samoa** | 49,710 |   |  66,174  |   |
| **Arizona** | 7,151,502 |  7,431,344  |  9,558,121  | 129% |
| **Arkansas** | 3,011,524 |  3,067,732  |  4,514,035  | 147% |
| **California** | 39,538,223 |  38,965,193  |  64,116,186  | 165% |
| **Colorado** | 5,773,714 |  5,877,610  |  7,728,551  | 131% |
| **Connecticut** | 3,605,944 |  3,617,176  |  5,130,343  | 142% |
| **Delaware** | 989,948 |  1,031,890  |  1,433,590  | 139% |
| **District of Columbia** | 689,545 |  678,972  |  2,218,358  | 327% |
| **Florida** | 21,538,187 |  22,610,726  |  32,627,504  | 144% |
| **Georgia** | 10,711,908 |  11,029,227  |  18,432,950  | 167% |
| **Guam** | 153,836 |   |  299,560  |   |
| **Hawaii** | 1,455,271 |  1,435,138  |  2,130,889  | 148% |
| **Idaho** | 1,839,106 |  1,964,726  |  2,285,959  | 116% |
| **Illinois** | 12,812,508 |  12,549,689  |  20,198,281  | 161% |
| **Indiana** | 6,785,528 |  6,862,199  |  8,728,395  | 127% |
| **Iowa** | 3,190,369 |  3,207,004  |  4,571,652  | 143% |
| **Kansas** | 2,937,880 |  2,940,546  |  3,772,056  | 128% |
| **Kentucky** | 4,505,836 |  4,526,154  |  5,836,447  | 129% |
| **Louisiana** | 4,657,757 |  4,573,749  |  6,776,615  | 148% |
| **Maine** | 1,362,359 |  1,395,722  |  1,639,096  | 117% |
| **Maryland** | 6,177,224 |  6,180,253  |  8,692,255  | 141% |
| **Massachusetts** | 7,029,917 |  7,001,399  |  10,405,860  | 149% |
| **Michigan** | 10,077,331 |  10,037,261  |  15,334,613  | 153% |
| **Minnesota** | 5,706,494 |  5,737,915  |  7,802,171  | 136% |
| **Mississippi** | 2,961,279 |  2,939,690  |  4,399,585  | 150% |
| **Missouri** | 6,154,913 |  6,196,156  |  8,753,464  | 141% |
| **Montana** | 1,084,225 |  1,132,812  |  1,347,565  | 119% |
| **Northern Mariana Islands** | 47,329 |   |  75,148  |   |
| **Nebraska** | 1,961,504 |  1,978,379  |  2,634,499  | 133% |
| **Nevada** | 3,104,614 |  3,194,176  |  4,375,374  | 137% |
| **New Hampshire** | 1,377,529 |  1,402,054  |  1,744,685  | 124% |
| **New Jersey** | 9,288,994 |  9,290,841  |  14,804,728  | 159% |
| **New Mexico** | 2,117,522 |  2,114,371  |  3,187,922  | 151% |
| **New York** | 20,201,249 |  19,571,216  |  30,676,568  | 157% |
| **North Carolina** | 10,439,388 |  10,835,491  |  13,846,192  | 128% |
| **North Dakota** | 779,094 |  783,926  |  1,051,936  | 134% |
| **Ohio** | 11,799,448 |  11,785,935  |  16,391,213  | 139% |
| **Oklahoma** | 3,959,353 |  4,053,824  |  5,503,795  | 136% |
| **Oregon** | 4,237,256 |  4,233,358  |  5,510,406  | 130% |
| **Pennsylvania** | 13,002,700 |  12,961,683  |  18,654,429  | 144% |
| **Puerto Rico** | 3,285,874 |  3,205,691  |  4,405,648  | 137% |
| **Rhode Island** | 1,097,379 |  1,095,962  |  1,439,890  | 131% |
| **South Carolina** | 5,118,425 |  5,373,555  |  7,109,663  | 132% |
| **South Dakota** | 886,667 |  919,318  |  1,114,093  | 121% |
| **Tennessee** | 6,910,840 |  7,126,489  |  10,125,708  | 142% |
| **Texas** | 29,145,505 |  30,503,301  |  43,178,963  | 142% |
| **U.S. Virgin Islands** | 87,146 |   |  119,652  |   |
| **Utah** | 3,271,616 |  3,417,734  |  5,010,837  | 147% |
| **Vermont** | 643,077 |  647,464  |  713,000  | 110% |
| **Virginia** | 8,631,393 |  8,715,698  |  11,931,496  | 137% |
| **Washington** | 7,705,281 |  7,812,880  |  10,192,406  | 130% |
| **West Virginia** | 1,793,716 |  1,770,071  |  2,514,224  | 142% |
| **Wisconsin** | 5,893,718 |  5,910,955  |  7,403,649  | 125% |
| **Wyoming** | 576,851 |  584,057  |  785,715  | 135% |

Source: December 2023 NRUF data; 2020 U.S. Census data; Staff block estimates.