

Internet Access Services: Status as of December 31, 2011

Industry Analysis and Technology Division
Wireline Competition Bureau
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Internet Access Services: Status as of December 31, 2011

Introduction. This report summarizes information about Internet access connections over 200 kilobits per second (kbps) in at least one direction in service in the United States on December 31, 2011, as collected by FCC Form 477. Form 477 gathers standardized information about *subscriptions* to Internet access services in the fifty states, District of Columbia, and inhabited insular areas (American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and U.S. Virgin Islands). The information is reported by telephone companies, cable system operators, terrestrial wireless service providers, satellite service providers, and other facilities-based providers of advanced telecommunications capability.¹ This is the seventh report to include details about subscribership differences among census tracts and counties, as well as subscribership differences among the states.²

Notable developments between December 2010 and December 2011 include:

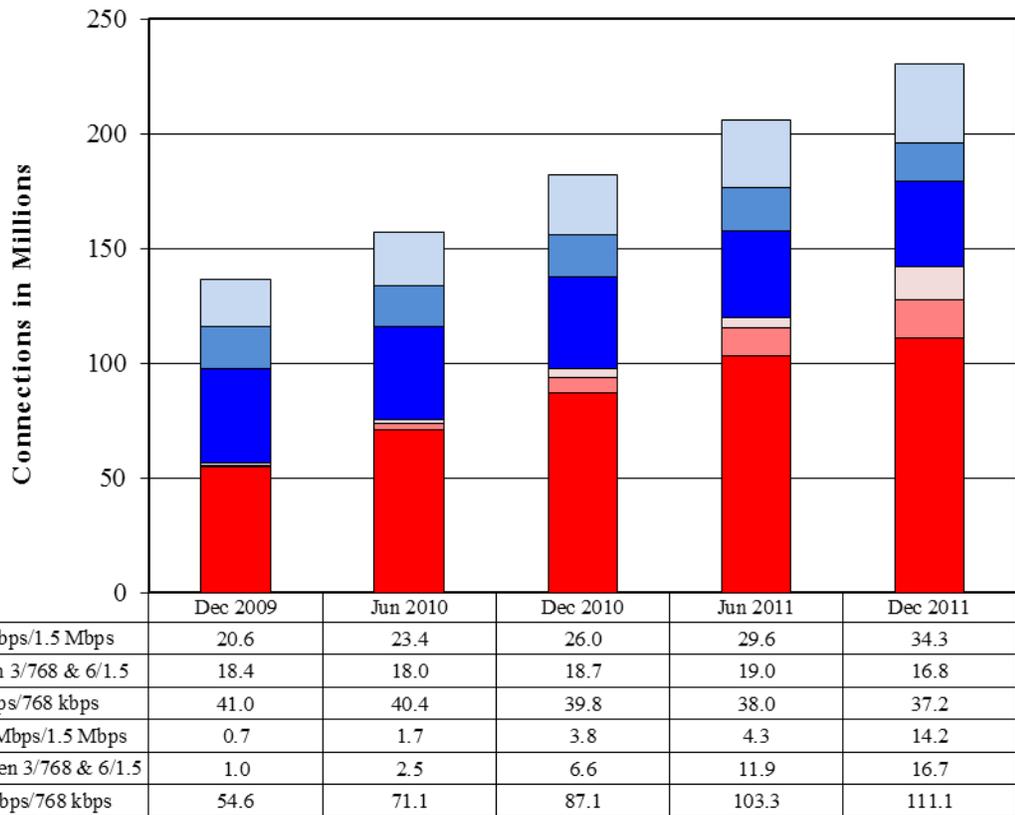
- Internet connections overall are growing. The number of connections over 200 kbps in at least one direction increased by 27% year-over-year to 230 million.
- Growth is particularly high in mobile Internet subscriptions, but fixed-location connections also continue to increase. The number of mobile subscriptions grew to 142 million – up 46% from December 2010. The number of fixed-location connections increased by 4% year-over-year, to 88 million.
- Both fixed and mobile services are shifting to higher speeds. The share of fixed connections with download speeds at or above 3 Mbps and upload speeds at or above 768 kbps increased from 53% to 58% of total fixed connections. Among mobile wireless subscriptions, the share increased from 11% to 22%.
- Despite the strong growth of *total* mobile connections, fixed connections continued to dominate among those connections with higher download and upload speeds. Figure 1 illustrates the trend in connections speeds from December 2009 through December 2011, and Figure 2 presents a side-by-side comparison of fixed and mobile connection speeds in December 2011.

¹ See the Technical Notes and the Glossary that appear at the end of this report for more-detailed information about the Form 477 data collection and the meaning of terms used in this report.

Readers should note two key aspects of the Form 477 data. First, if service connections of different speeds are *available* to a particular consumer for purchase – from one or more suppliers – then only the purchased connection is counted by Form 477. Second, the reported connection speed is typically the advertised speed of the purchased service, and it is possible that the purchased service will not operate at its advertised speed at all times. The Commission has sponsored tests of actual consumer broadband speeds. See, e.g., Federal Communications Commission, Office of Engineering and Technology and Consumer and Governmental Affairs Bureau, *2012 Measuring Broadband America: A Report on Consumer Wireline Broadband Performance in the U.S.* (July 2012), available at www.fcc.gov/measuring-broadband-america.

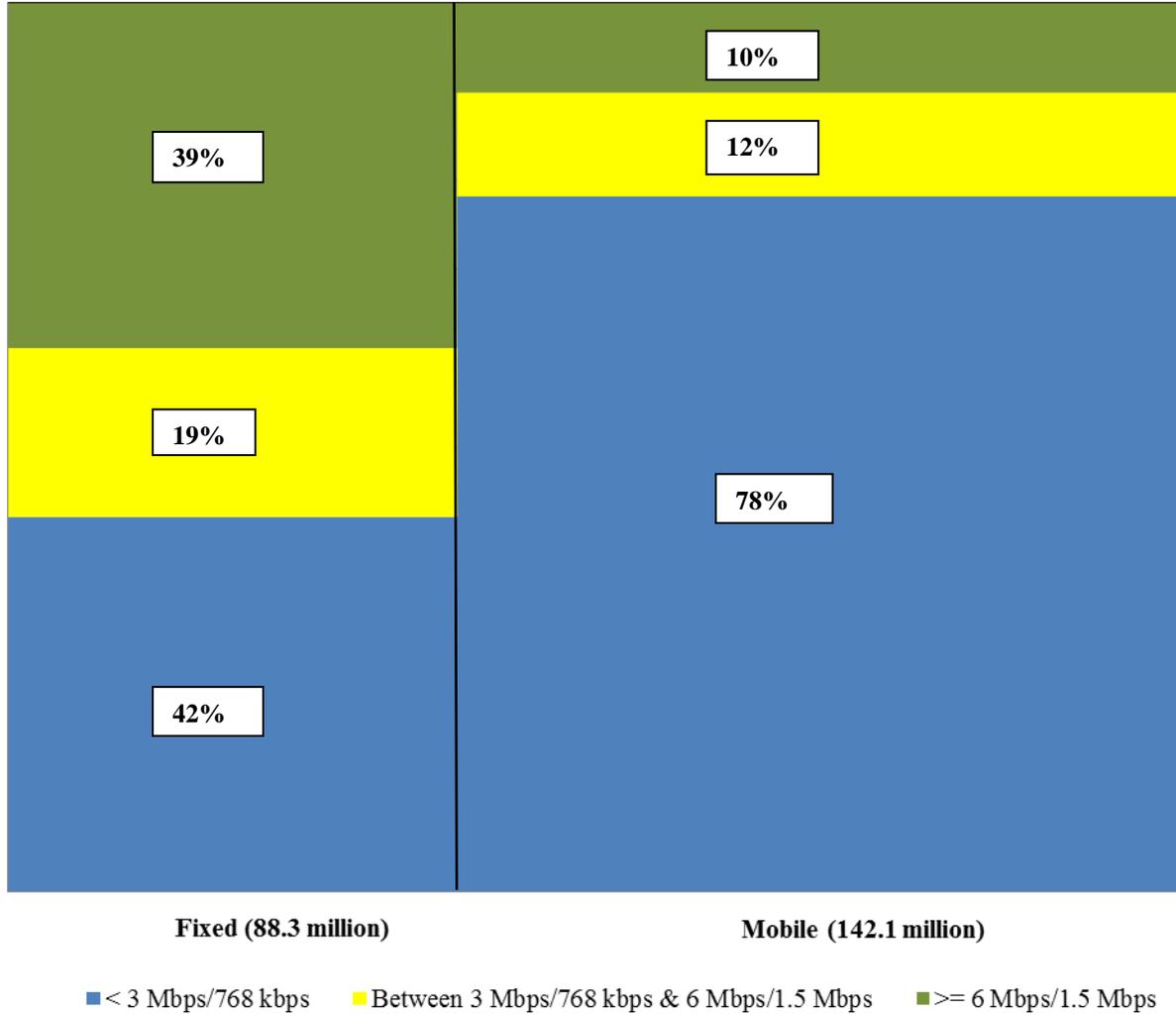
² The Form 477 program began collecting state-level data in 2000. Census tract-level data were first collected in December 2008. For an overview of program history, see *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010) (*December 2008 High-Speed Report*) at pp. 1-4, available at www.fcc.gov/wcb/iatd/comp.html. Readers who are interested in historical trends in the Form 477 data should note the changes in reporting requirements that were effective in 2008 and earlier, in 2005.

Figure 1
Fixed Connections and Mobile Connections by Speed* 2009-2011



* Some previously published data have been revised. Figures may not sum to totals elsewhere in this report due to rounding. Connections include both residential and business connections. In December 2011, total connections were reported as 35% residential fixed connections, 3% business fixed connections, 46% mobile connections to non-business subscribers, and 16% mobile connections to business subscribers.

Figure 2
Speed Composition of Fixed Connections and Mobile Connections
as of December 31, 2011

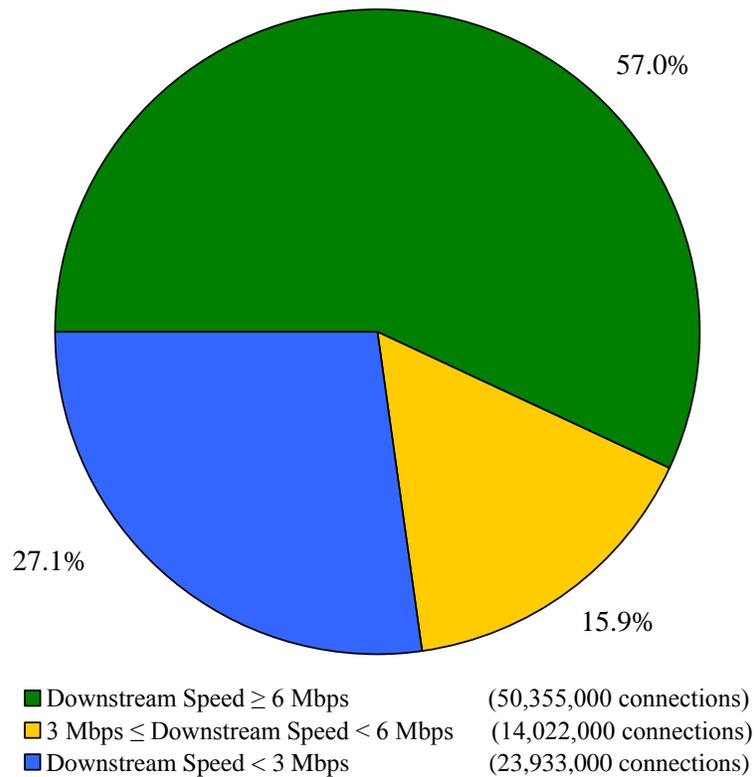


Connection speeds in detail. The Form 477 program categorizes reportable connections into 72 speed tiers defined by eight ranges of downstream and nine ranges of upstream speed. In this overview discussion, we organize the extensive information collected for December 2011 into three groups of downstream speeds and three groups of upstream speeds. We do this separately for fixed-location connections and for mobile connections. For the breakpoints between the speed groups, we use the Form 477-defined breakpoints that the Commission has discussed as potential proxies for the broadband

availability benchmark.³ These breakpoints are 3 Mbps and 6 Mbps for downstream speeds and 768 kbps and 1.5 Mbps for upstream speeds.^{4,5}

Fixed connections – downstream speeds. Figure 3(a) illustrates how the 88 million fixed connections reported for December 2011 were distributed across the three ranges of *downstream speed* defined by breakpoints at 3 Mbps and at 6 Mbps.

Figure 3(a)
Distribution of Reportable Fixed Connections (88,310,000) by
Downstream Speed as of December 31, 2011



³ The Commission benchmarked broadband as a transmission service that enables an end user actually to download Internet content at 4 megabits per second (Mbps) and to upload Internet content at 1 Mbps over the service provider’s network. *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Amended by the Broadband Data Improvement Act*, GN Docket Nos. 09-137, 09-51, Report, 25 FCC Rcd 95560, 9563, para. 11 (2010) (*Sixth Broadband Deployment Report*).

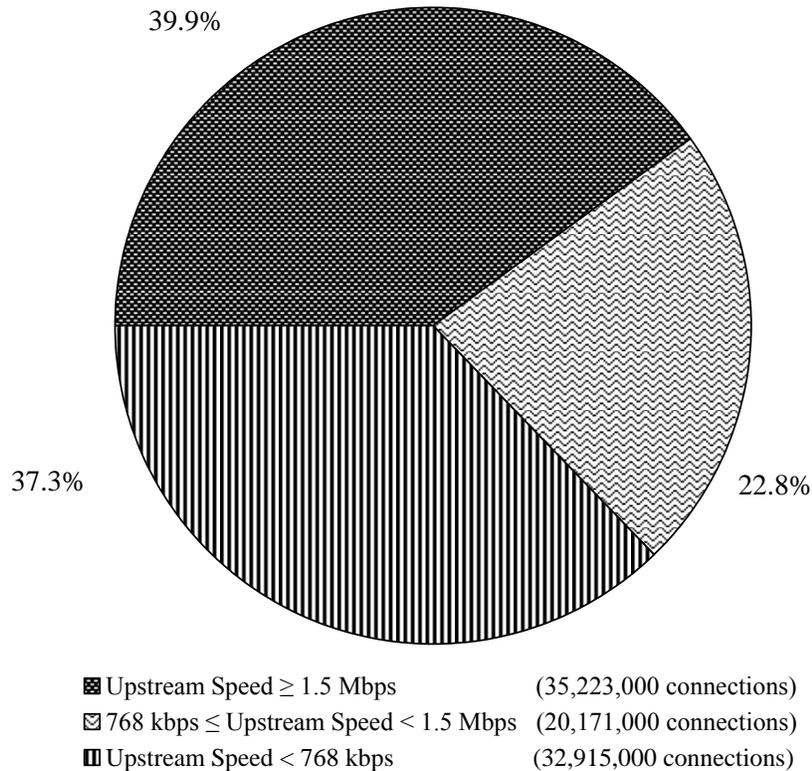
⁴ *See Sixth Broadband Deployment Report*, 25 FCC Rcd at 9568, para. 20. As explained there, the Commission decided to evaluate the evidence of broadband availability using 3 Mbps downstream and 768 kbps upstream to proxy the speed benchmark of 4 Mbps downstream and 1 Mbps upstream. Subsequent reports have used this proxy; *see, e.g., Eighth Broadband Progress Report*, 27 FCC Rcd 10342, 10364, para. 29 (2012).

⁵ Our narrative discussion of the speeds of fixed connections is summarized more concisely in Chart 2, at p. 19, and our narrative discussion of the speeds of mobile connections is summarized more concisely in Chart 5, at p. 22.

- In December 2011, 27% of reportable fixed connections (or 23.9 million connections) were slower than 3 Mbps in the downstream direction, 16% (or 14.0 million connections) were at least 3 Mbps in the downstream direction but slower than 6 Mbps, and 57% (or 50.4 million connections) were at least 6 Mbps in the downstream direction.⁶
- For speeds in the downstream direction, almost three-quarters (73%) of fixed connections met the broadband availability proxy of 3 Mbps or higher that was used in the *Eighth Broadband Progress Report*.

Fixed connections – upstream speeds. Figure 3(b) illustrates how the 88 million fixed connections reported for December 2011 were distributed across the three ranges of *upstream speed* defined by breakpoints at 768 kbps and at 1.5 Mbps.

Figure 3(b)
Distribution of Reportable Fixed Connections (88,310,000) by
Upstream Speed as of December 31, 2011



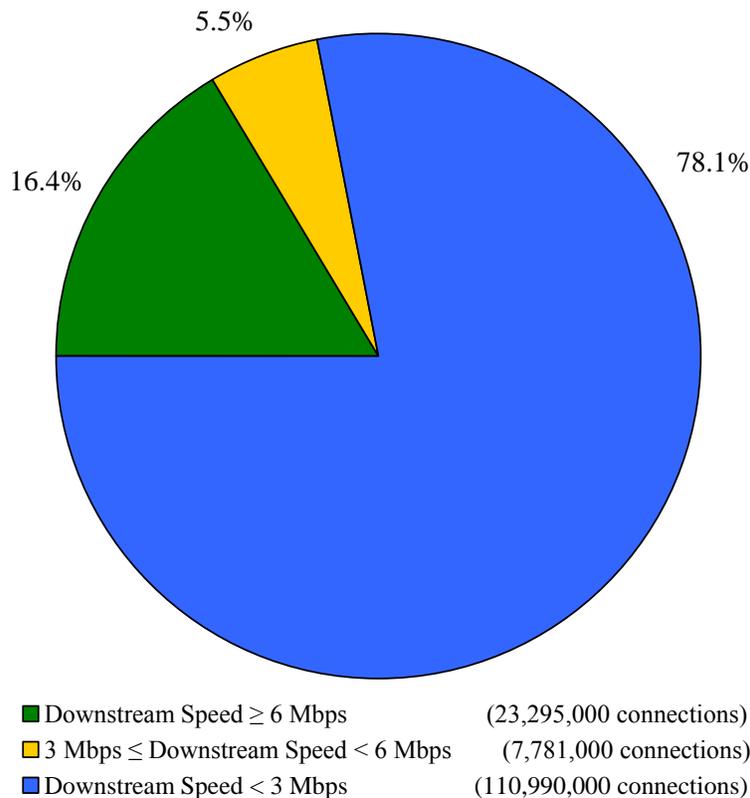
⁶ See Chart 2, at p. 19.

- In December 2011, 37% of reportable fixed connections (or 32.9 million connections) were slower than 768 kbps in the upstream direction, 23% (or 20.2 million connections) were at least 768 kbps in the upstream direction but slower than 1.5 Mbps, and 40% (or 35.2 million connections) were at least 1.5 Mbps in the upstream direction.⁷
- For speeds in the upstream direction, 63% of fixed connections met the broadband availability proxy of 768 kbps or higher that was used in the *Eighth Broadband Progress Report*.

Fixed connections – summary. Considering both downstream and upstream speeds, 58% of the 88 million fixed connections reported for December 2011 (or 51 million connections) met the broadband availability proxy of 3 Mbps or higher downstream and 768 kbps or higher upstream that was used in the *Eighth Broadband Progress Report*.⁸

Mobile connections – downstream speeds. Figure 4(a) illustrates how the 142 million mobile connections reported for December 2011 were distributed across the three ranges of *downstream speed* defined by breakpoints at 3 Mbps and at 6 Mbps.

Figure 4(a)
Distribution of Reportable Mobile Connections (142,066,000) by
Downstream Speed as of December 31, 2011



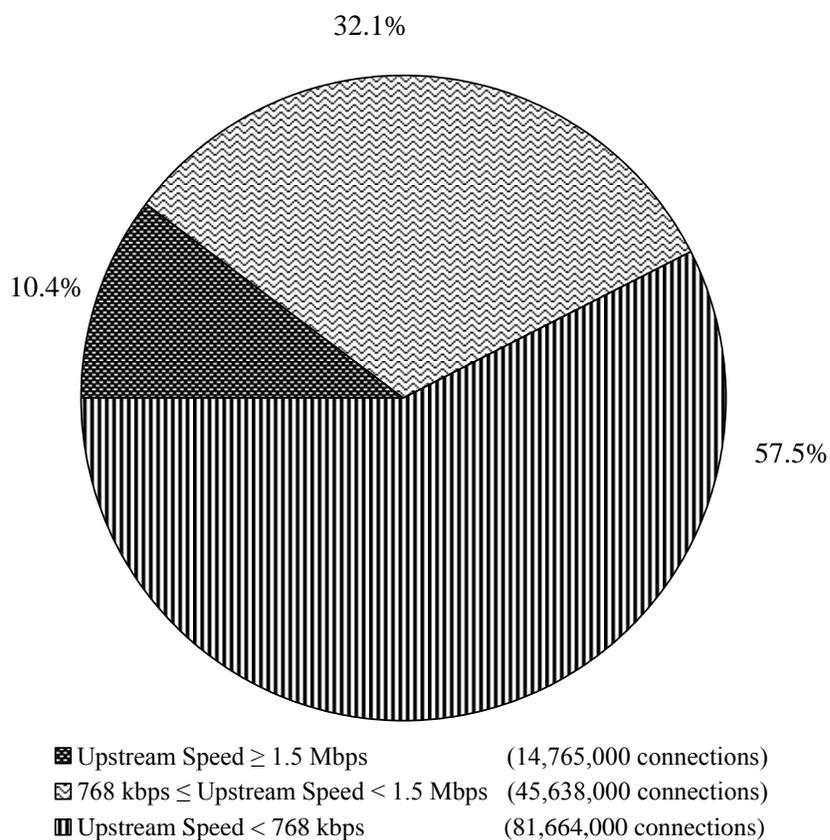
⁷ *Ibid.*

⁸ Compare Tables 1 and 2, at p. 17.

- In December 2011, 78% of reportable mobile connections (or 111.0 million connections) were slower than 3 Mbps in the downstream direction, 6% (or 7.8 million connections) were at least 3 Mbps in the downstream direction but slower than 6 Mbps, and 16% (or 23.3 million connections) were at least 6 Mbps in the downstream direction.⁹
- For speeds in the downstream direction, 22% of mobile connections met the downstream speed of 3 Mbps or higher that was used in the *Eighth Broadband Progress Report*.

Mobile connections – upstream speeds. Figure 4(b) illustrates how the 142 million mobile connections reported for December 2011 were distributed across the three ranges of *upstream speed* defined by breakpoints at 768 kbps and at 1.5 Mbps.

Figure 4(b)
Distribution of Reportable Mobile Connections (142,066,000) by
Upstream Speed as of December 31, 2011



⁹ See Chart 5, at p. 22.

- In December 2011, about 57% of reportable mobile connections (or 81.7 million connections) were slower than 768 kbps in the upstream direction, 32% (or 45.6 million connections) were at least 768 kbps in the upstream direction but slower than 1.5 Mbps, and 10% (or 14.8 million connections) were at least 1.5 Mbps in the upstream direction.¹⁰
- For speeds in the upstream direction, about 43% of mobile connections met the upstream speed of 768 kbps or higher that was used in the *Eighth Broadband Progress Report*.

Mobile connections – summary. Considering both downstream and upstream speeds, 22% of the 142 million fixed connections reported for December 2011 (or 31 million connections) met the downstream speed of 3 Mbps or higher and the upstream speed of 768 kbps or higher that were used in the *Eighth Broadband Progress Report*.¹¹

Providers by census tract by connection speed. In earlier reports in which we summarized Form 477 data through June 2008, we included summary statistics for the percentage of 5-digit geographical ZIP Codes in which differing numbers of providers (zero providers, one provider, two providers, etc.) had customers for their reportable connections.¹² The ZIP Code-based data did not include information about the speeds of the connections that were purchased in particular ZIP Codes. However, the census tract-level information collected on Form 477 since December 2008 does include the speeds of purchased fixed-location connections.¹³ In Figure 5(a), we use that information to estimate the percentages of households located in census tracts where zero, one, two, or three or more providers reported residential fixed-location connections of several different speeds in December 2011. In doing so, however, we emphasize that a provider who reports residential fixed-location connections of a particular speed in a particular census tract may not necessarily offer service at that speed everywhere in the census tract. Accordingly, the number of providers shown in Figure 5(a) does not necessarily reflect the number of choices available to a particular household.

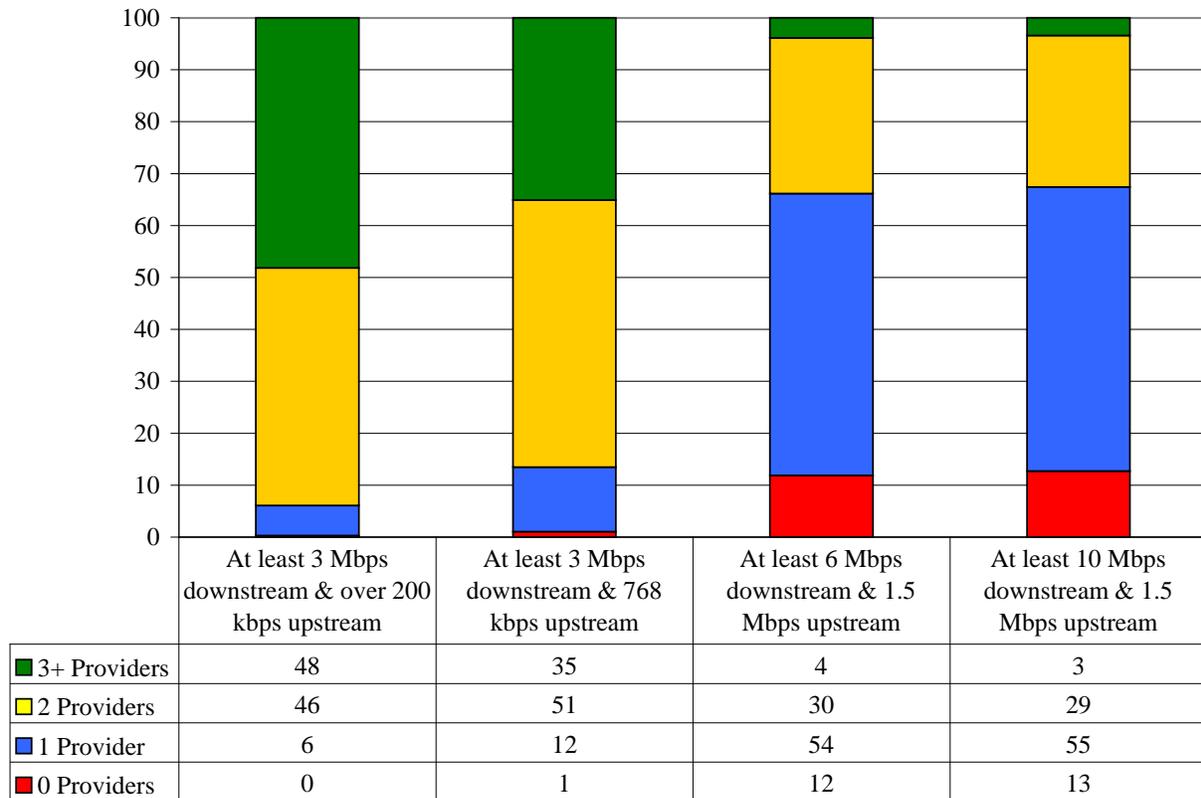
¹⁰ *Ibid.*

¹¹ Compare Tables 1 and 2, at p. 17.

¹² For the most recent such report, see *High-Speed Services for Internet Access: Status as of June 30, 2008* (July 2009) (*June 2008 High-Speed Report*) at pp. 1-4, available at www.fcc.gov/wcb/iatd/comp.html.

¹³ Mobile wireless providers report the number of service subscriptions they have sold, and the speeds of those service subscriptions, at the state level only. For individual census tracts, they report the speeds of mobile wireless service subscriptions that they *offer* for sale – that is, the capability of the network that they operate in the census tract.

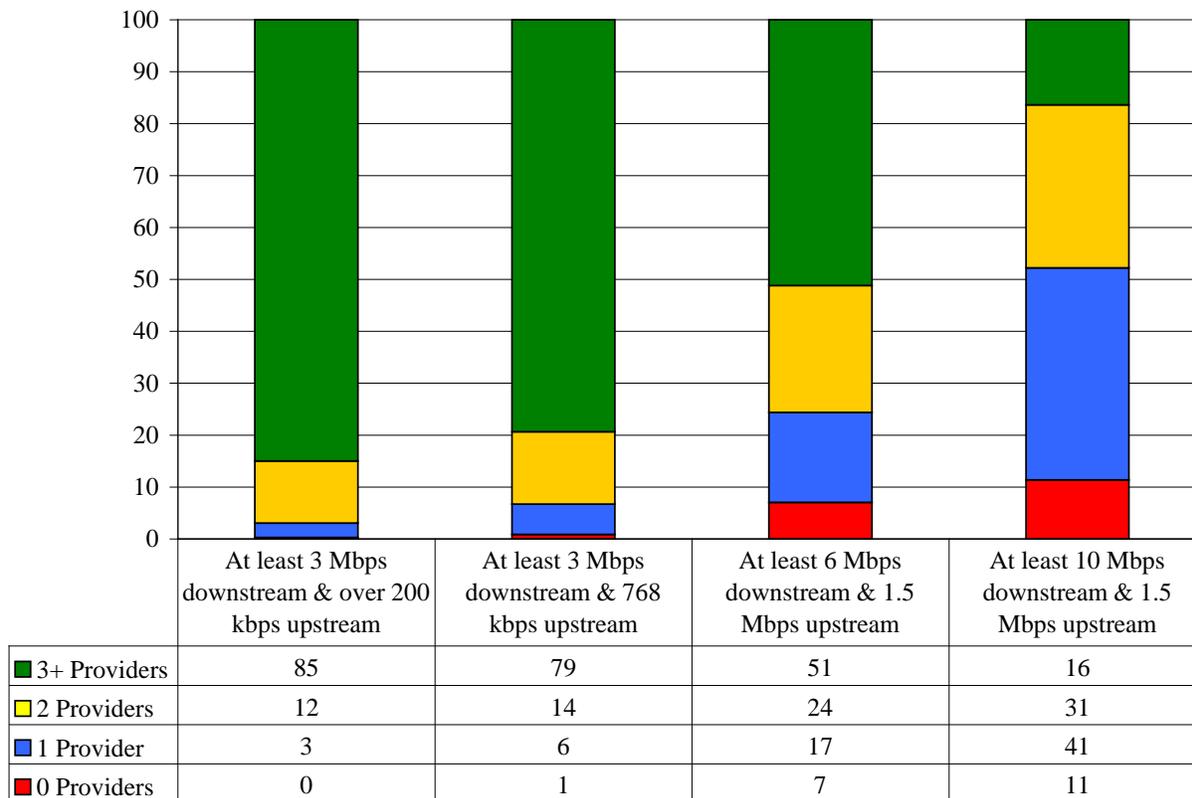
Figure 5(a)
Percentages of Households Located in Census Tracts Where Providers Report Residential Fixed-Location Connections of Various Speeds as of December 31, 2011



Figures may not sum to 100% due to rounding.

In Figure 5(b), we estimate the percentages of households in census tracts where providers reported purchased residential fixed-location connections of different speeds *or* reported operating a mobile wireless network capable of sending or receiving data at the indicated speeds. Again, we emphasize that such providers may not necessarily offer services at those speeds everywhere in the census tract.

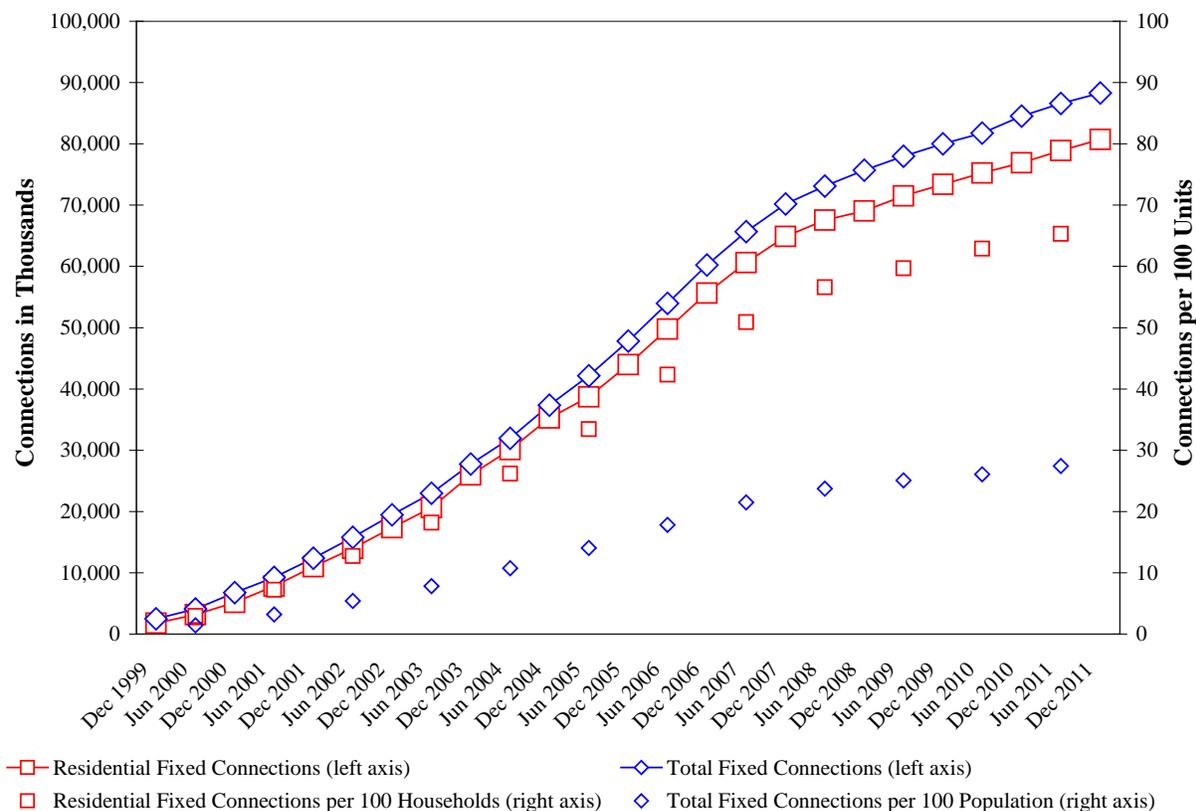
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Percentages of Households Located in Census Tracts Where Providers Report Residential Fixed-Location Connections of Various Speeds or Operate a Mobile Wireless Network Capable of Delivering Service of Various Speeds as of December 31, 2011



Figures may not sum to 100% due to rounding.

Internet access adoption. The Commission has systematically collected, compiled, and published data about the adoption of fixed-location Internet access connections faster than 200 kbps in at least one direction for more than a decade. Figure 6 illustrates the adoption of fixed-location Internet access connections (that is, all reportable connections except mobile wireless connections) since 1999.¹⁴

**Figure 6
Fixed-Location Connections 1999-2011**



- Between December 2001 and December 2011, total (business and residential) reportable fixed-location connections grew from 12 million connections to 88 million connections – at a compound annual growth rate of 22% per year.
- Over the same ten-year period, residential fixed-location connections grew from 11 million connections to 81 million connections – also at a compound annual growth rate of 22% per year.

¹⁴ Historical fixed-location connection counts not included in this report may be found in *June 2008 High-Speed Report* at Tables 1 and 3, available in Excel format at www.fcc.gov/wcb/iatd/comp.html.

- As we reported previously, between June 2001 and June 2011, household adoption – which we track in Figure 6 by comparing the number of residential fixed-location connections to the number of households – increased from 7 connections per 100 households to 65 connections per 100 households.^{15,16}

Other report highlights.

Residential subscribership

- Residential fixed-location Internet access connections over 200 kbps in at least one direction increased by 5% between December 2010 and December 2011, to 81 million. See Table 3.
- Reported residential mobile wireless service subscribers with mobile devices and data plans for full Internet access increased by 46%, to 106 million, between December 2010 and December 2011. See Table 3.
- The reported data show 30% annual increases in the number of residential fixed-location connections that are at least 6 Mbps downstream and 1.5 Mbps upstream (from 24.6 million to 32.3 million) and in the number of connections that are at least 10 Mbps downstream and 1.5 Mbps upstream (from 24.2 million to 31.6 million). See Chart 12.

Household adoption of faster speeds

- As a national average in December 2011, there were 40 residential fixed-location connections per 100 households for connections with speeds that were reported to be at least 3 Mbps downstream and 768 kbps upstream.¹⁷ See Table 13.

¹⁵ See *Internet Access Services: Status as of June 30, 2011* (June 2012) at p. 10. We calculated residential fixed connections per 100 *households* using, in the denominator, U.S. household estimates from the Census Bureau’s Current Population Survey (CPS) for July of each year, Census 2010 households for Puerto Rico, and Census 2000 households for the remaining inhabited insular areas. (The CPS also estimates U.S. households for March and November of each year.) Ratios calculated for different dates or by using alternative household estimates will differ somewhat from the ratios reported in Figure 6.

¹⁶ We also show total (including business as well as residential) fixed-location connections per 100 *population* in Figure 6, which we calculated using U.S. Census Bureau population estimates for the United States and Puerto Rico – which are as of July 1 each year – and Census 2000 population for the remaining inhabited insular areas. This statistic, which is routinely reported by the Organization for Economic Cooperation and Development (OECD), incorporates connections to business locations into a comparison to persons. A more accurately measured indicator of this type would include only connections to residential locations, but OECD does not have comprehensive, consistent information about residential connections in the member countries. (We note that the ratio of accurately measured *residential* fixed-location connections to population has a maximum value for any given country and point in time – the value when *every* household is connected – if we assume that no household would have more than one fixed connection to its premises. For the United States in June 2011, for example, the maximum value would be 38 because there were about 120.8 million households in the United States and inhabited insular areas and a population of about 315.7 million.)

¹⁷ Increases over time in the ratio of residential fixed-location connections to households indicate that increasing shares of households are connected at home. The ratio is somewhat different from the “take rate” of offered service because, as discussed in connection with Figure 5(a), some households are located in areas where apparently no fixed-location service is offered (as none is purchased).

Census tract and county shares of households with reportable connections

- We estimate the share of households with fixed-location Internet access connections over 200 kbps in at least one direction in individual census tracts and counties as of December 31, 2011. Our estimates continue to indicate that there are substantial areas of relatively low and relatively high household adoption around the national average. See Charts 15 and 16.
- For both census tracts and counties, we continue to find estimates above 100% for the share of households with reportable fixed-location Internet access connections. These results suggest that some filers are not accurately assigning customer connections to census tracts, and anecdotal evidence supports that conclusion.¹⁸

Household adoption rates and subscribership demographics

- The report includes charts that illustrate correlations between household subscribership, or *adoption*, rates and demographic measures. We update charts based on income, household density, education, age, and race. The data indicate that some demographic variables are correlated with the adoption of Internet access service. See Charts 17-29.

Maps of providers by census tract

- Maps depict the number of providers of reportable connections by census tract. These maps are similar to previously published maps of providers by ZIP Code, but differ in important respects. In particular, instead of a single map combining providers of connections over all technologies and to both residential and business end users, now separate maps depict: (1) providers of total (combined residential and business) reportable fixed-location connections, (2) providers of *residential* reportable fixed-location connections, (3) providers of *residential* fixed-location connections at least 3 Mbps downstream and 768 kbps upstream, and (4) providers making reportable mobile wireless service *available*.¹⁹

Remainder of the report. The remainder of the report consists of tables, charts, and maps that highlight different aspects of Internet access service subscriptions. This information is organized into four sections, as described below. As always, publicly accessible data that are too voluminous to include in this report are available online at www.fcc.gov/wcb/iatd/comp.html.

- Detailed Summary Statistics: The Nation. Tables 1-12 and Charts 1-14 focus in order on: number of connections, speed of connections, technology of connections, and number of providers.
- Detailed Summary Statistics: The States. Tables 13-22 present comparable information for the individual states and our estimates of the shares of households that are connected at different speeds.

¹⁸ For example, while contacting Form 477 filers with questions about reported data, FCC staff continue to find situations in which all connections reported for a county have been assigned to a single, anomalous census tract.

¹⁹ As discussed in the Technical Notes, a mobile wireless provider should only report service availability in census tracts where the provider operates a network capable of sending or receiving data at speeds above 200 kbps.

- Detailed Summary Statistics: Counties and Census Tracts. Charts 15-16 and Tables 23-27 present information about differences among counties and census tracts. This section concludes with two maps that illustrate differences among census tracts in the estimated share of connected households and the four maps (discussed above) that illustrate providers by census tract.
- Detailed Correlation Results: Demographic Measures. Charts 17-29 present details of the correlations observed between the estimated share of connected households and demographic measures.

* * * *

We invite users of this information to suggest improvements in the data analysis by using the attached customer response form or sending comments to IATDreports@fcc.gov for subject: December 2011 Internet services data, and to participate in proceedings the Commission undertakes to improve the data collection.

Detailed Summary Statistics: The Nation

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Table 1
Connections over 200 kbps in at Least One Direction 2007-2011
(In thousands)

<i>Technology</i>	2007		2008		2009		2010		2011	
	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	
Total	121,222	132,814	102,239	119,433	136,294	157,017	182,065	206,131	230,376	
Total Fixed	70,206	73,123	75,707	77,997	79,994	81,764	84,521	86,575	88,310	
Mobile Wireless ¹	51,016	59,691	26,532	41,436	56,300	75,253	97,544	119,556	142,066	

Table 2
Connections at Least 3 Mbps Downstream and 768 kbps Upstream 2008-2011
(In thousands)

<i>Technology</i>	2008		2009		2010		2011	
	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	
Total	31,120	33,332	40,669	45,552	55,110	64,819	81,991	
Total Fixed	30,987	33,108	38,963	41,364	44,694	48,577	51,073	
Mobile Wireless ¹	133	224	1,706	4,188	10,416	16,242	30,918	

Table 3
Residential Connections over 200 kbps in at Least One Direction 2007-2011
(In thousands)

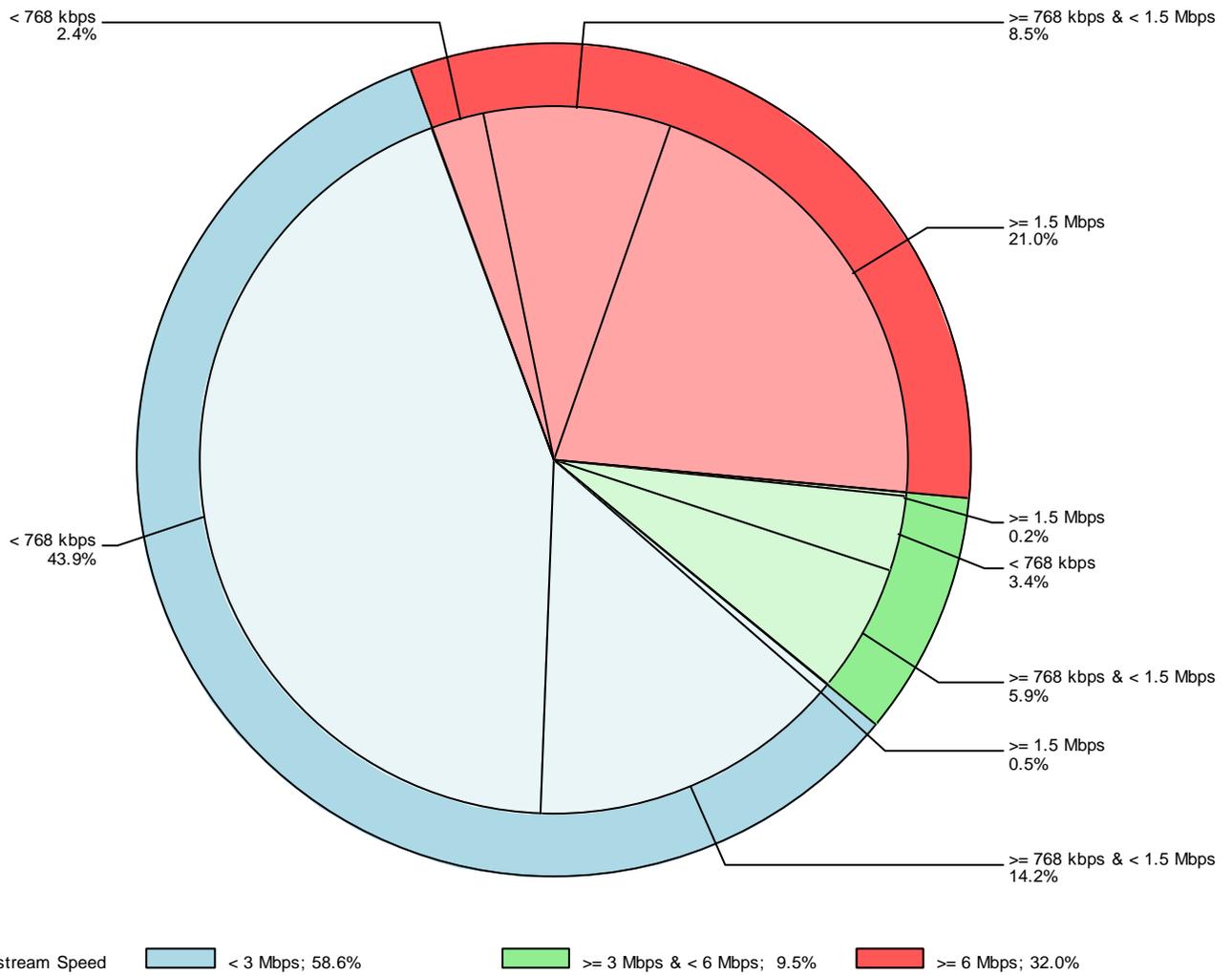
<i>Technology</i>	2007		2008		2009		2010		2011	
	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	
Total	73,984	79,090	88,190	103,300	117,089	132,567	149,441	171,773	186,704	
Total Fixed	64,875	67,554	69,047	71,509	73,394	75,251	76,918	78,906	80,711	
Mobile Wireless ¹	9,109	11,536	19,142	31,791	43,695	57,316	72,523	92,867	105,993	

Table 4
Residential Connections at Least 3 Mbps Downstream and 768 kbps Upstream 2008-2011
(In thousands)

<i>Technology</i>	2008		2009		2010		2011	
	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	
Total	29,127	31,356	38,426	42,243	47,632	51,783	63,724	
Total Fixed	29,013	31,161	36,844	39,037	41,769	45,263	47,415	
Mobile Wireless ¹	114	196	1,582	3,206	5,863	6,520	16,309	

¹ Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See Technical Notes at the end of the report.
Note: Some historical data have been revised. Figures may not sum to totals due to rounding.
Source: FCC Form 477, Parts I and VI.

Chart 1
Distribution of Connections over 200 kbps in at Least One Direction
as of December 31, 2011



Connections over 200 kbps in at Least One Direction (in thousands)

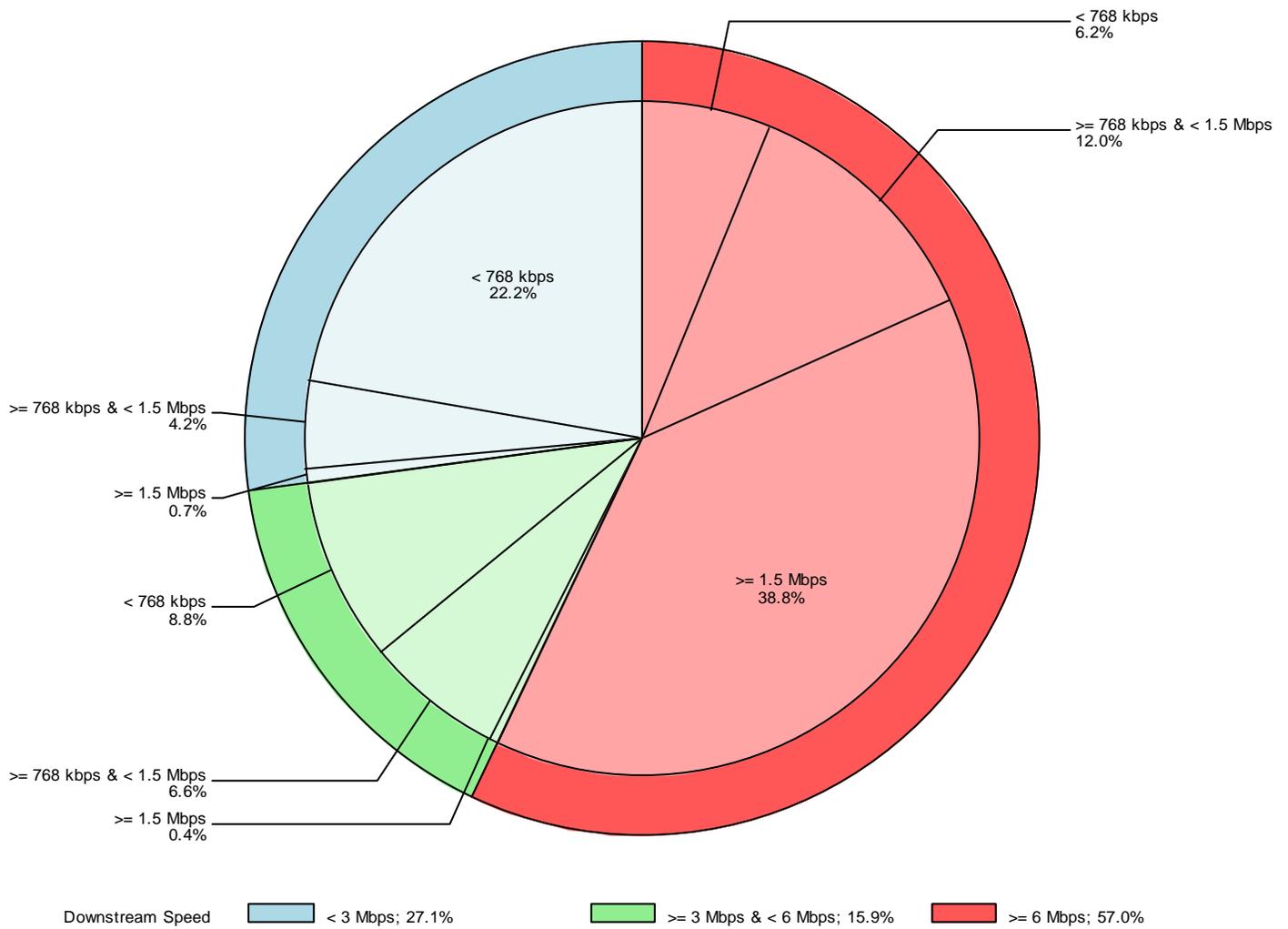
Upstream Speed	Downstream Speed			Total
	Less than 3 Mbps	At least 3 Mbps and less than 6 Mbps	At least 6 Mbps	
Less than 768 kbps	101,117	7,928	5,534	114,579
At least 768 kbps & Less than 1.5 Mbps	32,693	13,490	19,626	65,809
At least 1.5 Mbps	1,113	385	48,490	49,988
Total	134,923	21,803	73,650	230,376

Percentages

Less than 768 kbps	43.9	3.4	2.4	49.7
At least 768 kbps & Less than 1.5 Mbps	14.2	5.9	8.5	28.6
At least 1.5 Mbps	0.5	0.2	21.0	21.7
Total	58.6	9.5	32.0	100.0

Note: Figures may not sum to totals due to rounding.
 Source: FCC Form 477, Part I.

Chart 2
Distribution of Fixed Connections over 200 kbps in at Least One Direction
as of December 31, 2011



Fixed Connections over 200 kbps in at Least One Direction (in thousands)

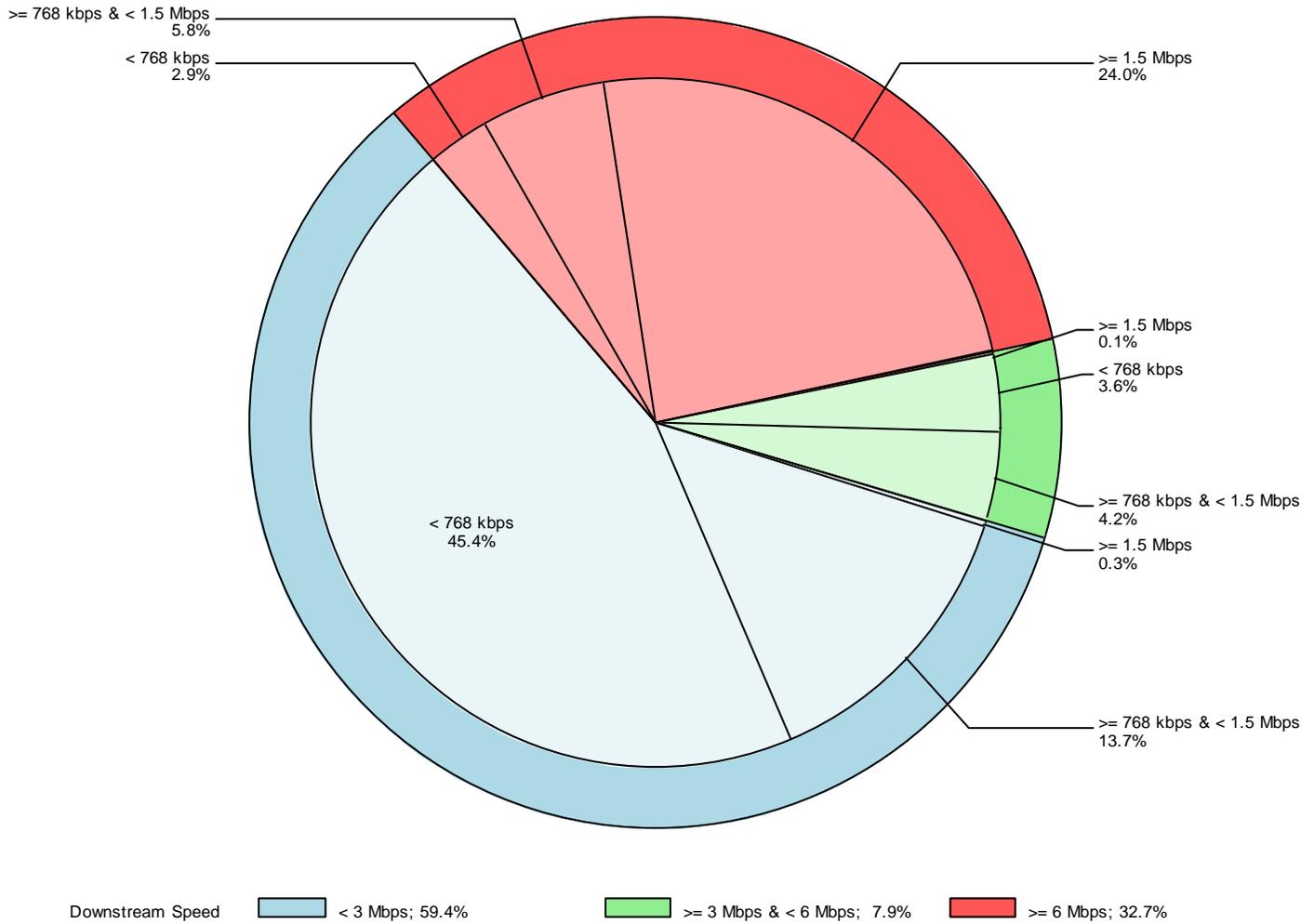
Upstream Speed	Downstream Speed			Total
	Less than 3 Mbps	At least 3 Mbps and less than 6 Mbps	At least 6 Mbps	
Less than 768 kbps	19,611	7,797	5,507	32,915
At least 768 kbps & Less than 1.5 Mbps	3,746	5,852	10,573	20,171
At least 1.5 Mbps	575	373	34,275	35,223
Total	23,933	14,022	50,355	88,310

Percentages

Less than 768 kbps	22.2	8.8	6.2	37.3
At least 768 kbps & Less than 1.5 Mbps	4.2	6.6	12.0	22.8
At least 1.5 Mbps	0.7	0.4	38.8	39.9
Total	27.1	15.9	57.0	100.0

Note: Figures may not sum to totals due to rounding.
 Source: FCC Form 477, Part I.

Chart 3
Distribution of Residential Connections over 200 kbps in at Least One Direction
as of December 31, 2011



Note: Inner circle (light shading) represents upstream speeds.

Residential Connections over 200 kbps in at Least One Direction (in thousands)

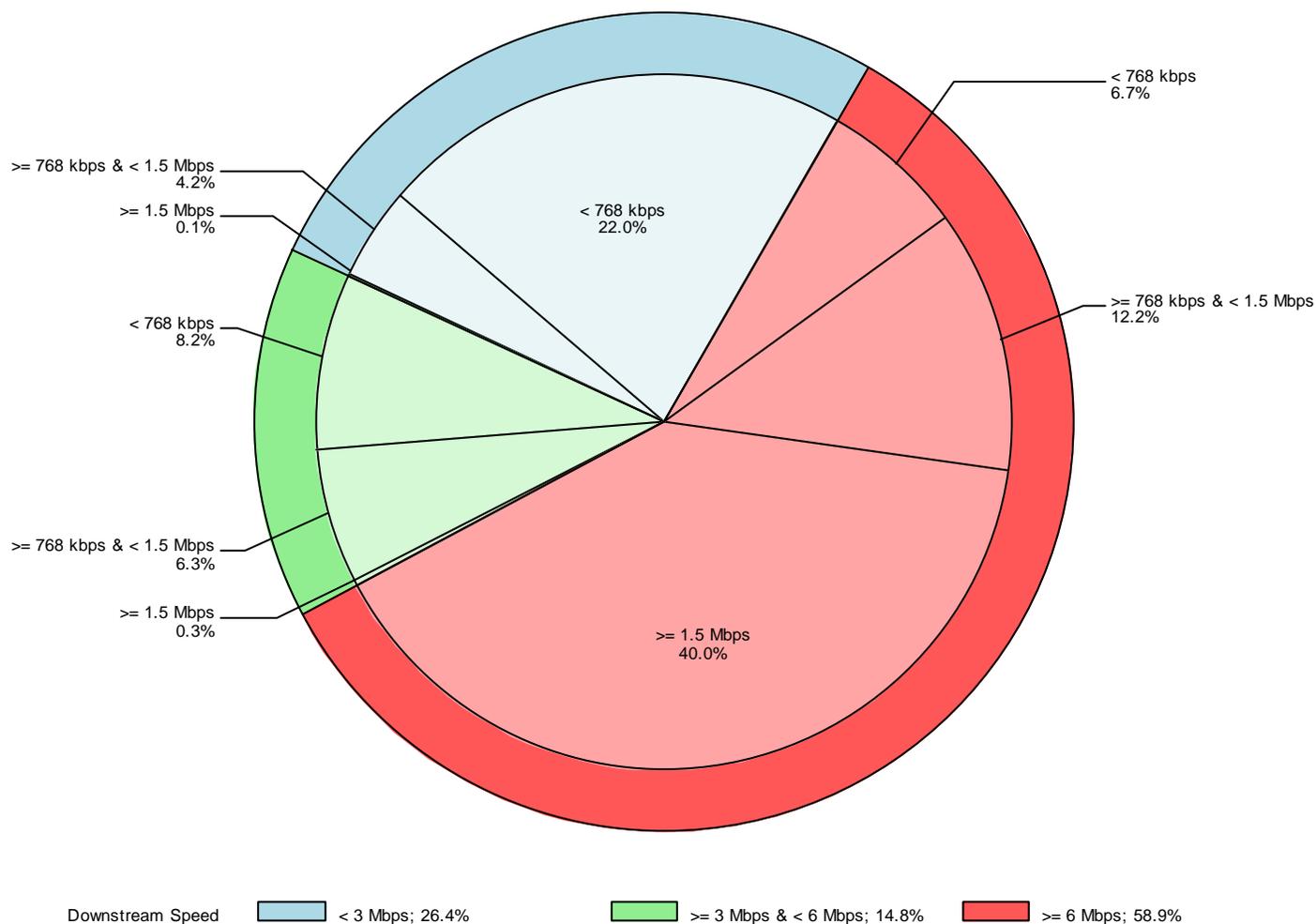
Upstream Speed	Downstream Speed			Total
	Less than 3 Mbps	At least 3 Mbps and less than 6 Mbps	At least 6 Mbps	
Less than 768 kbps	84,716	6,765	5,404	96,886
At least 768 kbps & Less than 1.5 Mbps	25,502	7,759	10,849	44,110
At least 1.5 Mbps	592	232	44,885	45,708
Total	110,811	14,756	61,137	186,704

Percentages

Less than 768 kbps	45.4	3.6	2.9	51.9
At least 768 kbps & Less than 1.5 Mbps	13.7	4.2	5.8	23.6
At least 1.5 Mbps	0.3	0.1	24.0	24.5
Total	59.4	7.9	32.7	100.0

Note: Figures may not sum to totals due to rounding.
 Source: FCC Form 477, Parts I and VI.

Chart 4
Distribution of Residential Fixed Connections over 200 kbps in at Least One Direction
as of December 31, 2011



Note: Inner circle (light shading) represents upstream speeds.

Residential Fixed Connections over 200 kbps in at Least One Direction (in thousands)

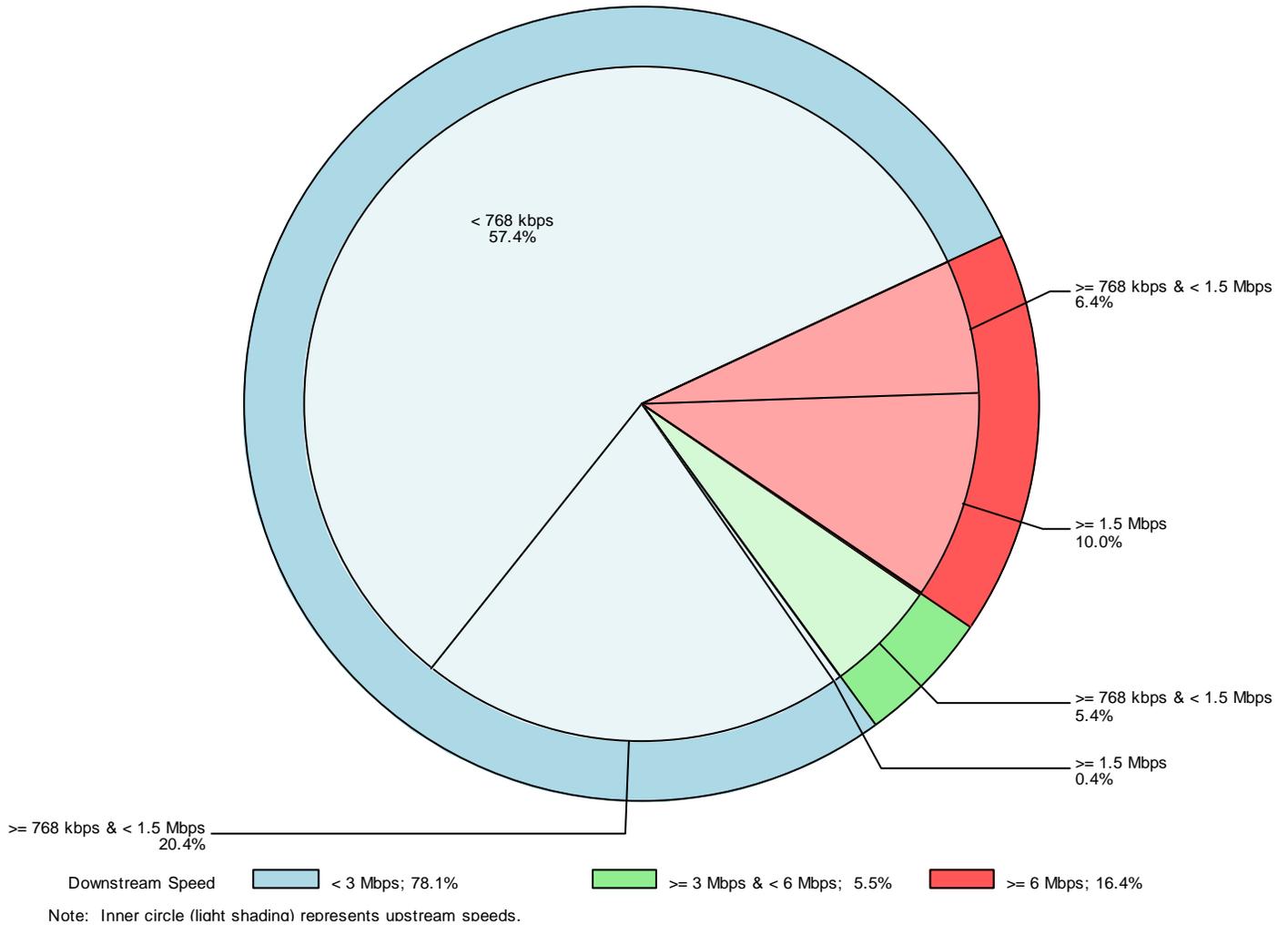
Upstream Speed	Downstream Speed			Total
	Less than 3 Mbps	At least 3 Mbps and less than 6 Mbps	At least 6 Mbps	
Less than 768 kbps	17,776	6,646	5,379	29,801
At least 768 kbps & Less than 1.5 Mbps	3,414	5,056	9,854	18,324
At least 1.5 Mbps	81	221	32,284	32,586
Total	21,271	11,923	47,518	80,711

Percentages

Less than 768 kbps	22.0	8.2	6.7	36.9
At least 768 kbps & Less than 1.5 Mbps	4.2	6.3	12.2	22.7
At least 1.5 Mbps	0.1	0.3	40.0	40.4
Total	26.4	14.8	58.9	100.0

Note: Figures may not sum to totals due to rounding.
 Source: FCC Form 477, Part VI.

Chart 5
Distribution of Mobile Wireless Connections over 200 kbps in at Least One Direction
as of December 31, 2011



Mobile Wireless Connections over 200 kbps in at Least One Direction (in thousands)

Upstream Speed	Downstream Speed			Total
	Less than 3 Mbps	At least 3 Mbps and less than 6 Mbps	At least 6 Mbps	
Less than 768 kbps	81,506	131	27	81,664
At least 768 kbps & Less than 1.5 Mbps	28,947	7,637	9,054	45,638
At least 1.5 Mbps	537	13	14,214	14,765
Total	110,990	7,781	23,295	142,066

Percentages				
Less than 768 kbps	57.4	0.1	0.0	57.5
At least 768 kbps & Less than 1.5 Mbps	20.4	5.4	6.4	32.1
At least 1.5 Mbps	0.4	0.0	10.0	10.4
Total	78.1	5.5	16.4	100.0

Note: Figures may not sum to totals due to rounding.
Source: FCC Form 477, Part I.

Table 5
Connections over 200 kbps in at Least One Direction by Technology 2007-2011
(In thousands)

Technology	2007		2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Total	121,222	132,814	102,239	119,433	136,294	157,017	182,065	206,131	230,376	
Total Fixed	70,206	73,123	75,707	77,997	79,994	81,764	84,521	86,575	88,310	
aDSL	29,449	29,964	30,198	30,631	30,987	30,759	31,470	31,611	31,338	
sDSL	293	275	241	217	225	191	167	159	151	
Other Wireline	605	665	705	684	714	750	788	772	792	
Cable Modem	36,507	38,190	40,251	41,434	42,439	43,923	45,334	46,698	48,257	
FTTP ¹	1,849	2,346	2,884	3,548	3,980	4,441	4,993	5,477	5,884	
Satellite	791	869	938	990	1,116	1,144	1,176	1,204	1,190	
Fixed Wireless	707	808	485	488	527	551	587	649	696	
Power Line and Other	5	5	5	5	5	6	6	6	3	
Mobile Wireless ²	51,016	59,691	26,532	41,436	56,300	75,253	97,544	119,556	142,066	

¹ Fiber to the premises. See Technical Notes at the end of the report for a description of Form 477 technology categories and other reporting requirements.

² Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See Technical Notes at the end of the report.

Note: Some historical data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Chart 6
Connections by Technology as of December 31, 2011

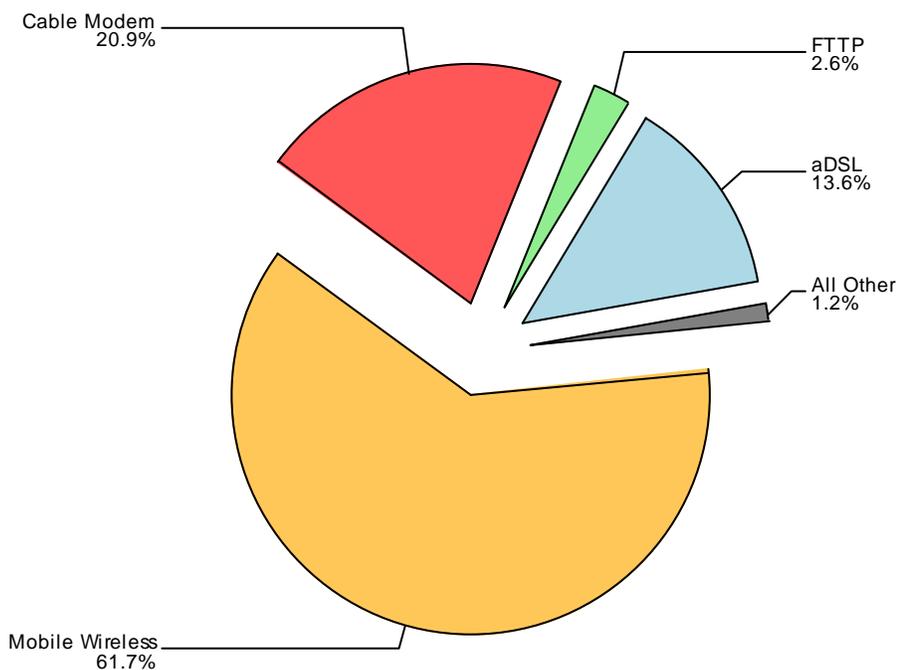


Table 6
Residential Connections over 200 kbps in at Least One Direction by Technology 2007-2011
(In thousands)

Technology	2007		2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Total	73,984	79,090	88,190	103,300	117,089	132,567	149,441	171,773	186,704	
Total Fixed	64,875	67,554	69,047	71,509	73,394	75,251	76,918	78,906	80,711	
aDSL	26,475	26,950	26,488	27,047	27,402	27,488	27,467	27,754	27,766	
sDSL	82	81	74	71	85	65	53	52	58	
Other Wireline	17	32	42	44	51	56	70	39	37	
Cable Modem	35,341	36,901	38,681	39,909	40,872	42,178	43,295	44,480	45,826	
FTTP ¹	1,683	2,139	2,717	3,348	3,758	4,185	4,704	5,118	5,516	
Satellite	626	705	630	668	767	787	811	885	886	
Fixed Wireless	644	741	410	417	454	486	513	572	620	
Power Line and Other	5	5	5	5	5	6	6	6	3	
Mobile Wireless ²	9,109	11,536	19,142	31,791	43,695	57,316	72,523	92,867	105,993	

¹ Fiber to the premises. See Technical Notes at the end of the report for a description of Form 477 technology categories and other reporting requirements.

² Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See Technical Notes at the end of the report.

Note: Some historical data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Parts I and VI.

Chart 7
Residential Connections by Technology as of December 31, 2011

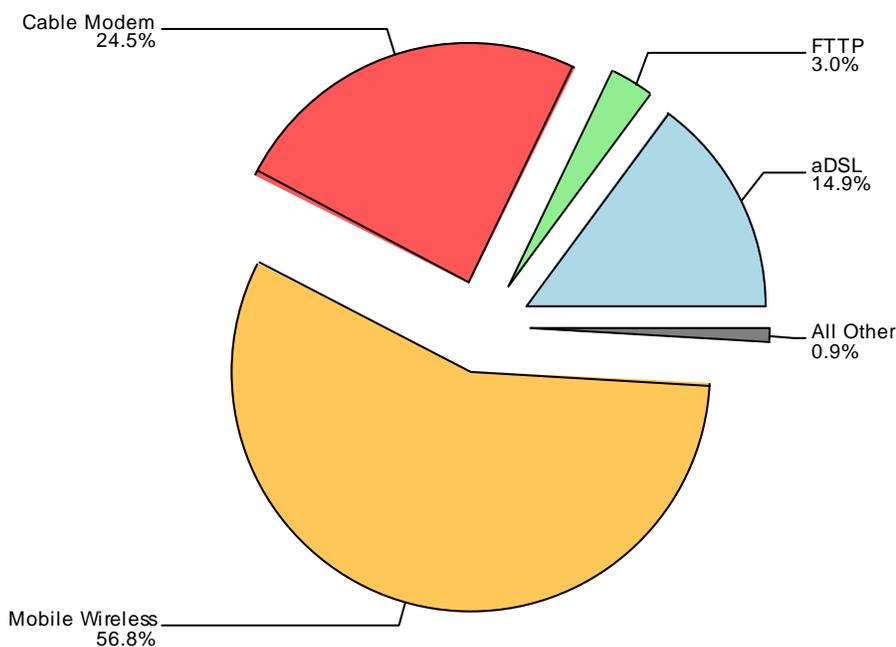


Table 7
Connections at Least 3 Mbps Downstream and 768 kbps Upstream by Technology 2008-2011
(In thousands)

Technology	2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Total	31,120	33,332	40,669	45,552	55,110	64,819	81,991	
Total Fixed	30,987	33,108	38,963	41,364	44,694	48,577	51,073	
aDSL	5,403	5,614	6,389	6,275	7,302	8,909	10,344	
sDSL	5	9	19	13	14	16	27	
Other Wireline	121	128	149	176	208	202	228	
Cable Modem	22,708	23,958	28,583	30,616	32,338	34,113	34,693	
FTTP ¹	2,694	3,333	3,739	4,192	4,725	5,188	5,594	
Satellite	#	#	#	#	#	#	#	
Fixed Wireless	54	64	82	92	105	145	187	
Power Line and Other	1	1	1	1	3	3	#	
Mobile Wireless	133	224	1,706	4,188	10,416	16,242	30,918	

= Rounds to Zero.

¹ Fiber to the premises. See Technical Notes at the end of the report for a description of Form 477 technology categories and other reporting requirements.

Note: Some historical data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Chart 8
Connections at Least 3 Mbps Downstream and 768 kbps Upstream
by Technology as of December 31, 2011

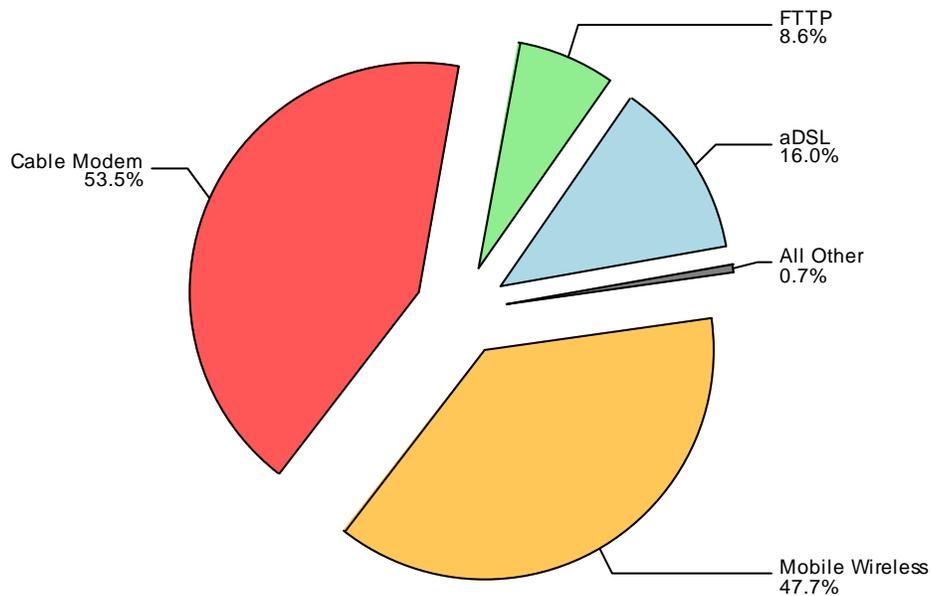


Table 8
Residential Connections at Least 3 Mbps Downstream and 768 kbps Upstream by Technology 2008-2011
(In thousands)

Technology	2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Total	29,127	31,356	38,426	42,243	47,632	51,783	63,724	
Total Fixed	29,013	31,161	36,844	39,037	41,769	45,263	47,415	
aDSL	4,613	4,895	5,633	5,557	6,421	7,909	9,270	
sDSL	1	2	10	2	2	4	12	
Other Wireline	10	11	18	19	33	13	16	
Cable Modem	21,776	23,025	27,548	29,398	30,742	32,321	32,687	
FTTP ¹	2,571	3,177	3,566	3,982	4,482	4,894	5,268	
Satellite	0	0	0	0	0	0	#	
Fixed Wireless	42	50	68	77	86	121	162	
Power Line and Other	1	1	1	1	3	3	0	
Mobile Wireless	114	196	1,582	3,206	5,863	6,520	16,309	

¹ Fiber to the premises. See Technical Notes at the end of the report for a description of Form 477 technology categories and other reporting requirements. Note: Some historical data have been revised. Figures may not sum to totals due to rounding. Source: FCC Form 477, Parts I and VI.

Chart 9
Residential Connections at Least 3 Mbps Downstream and 768 kbps Upstream
by Technology as of December 31, 2011

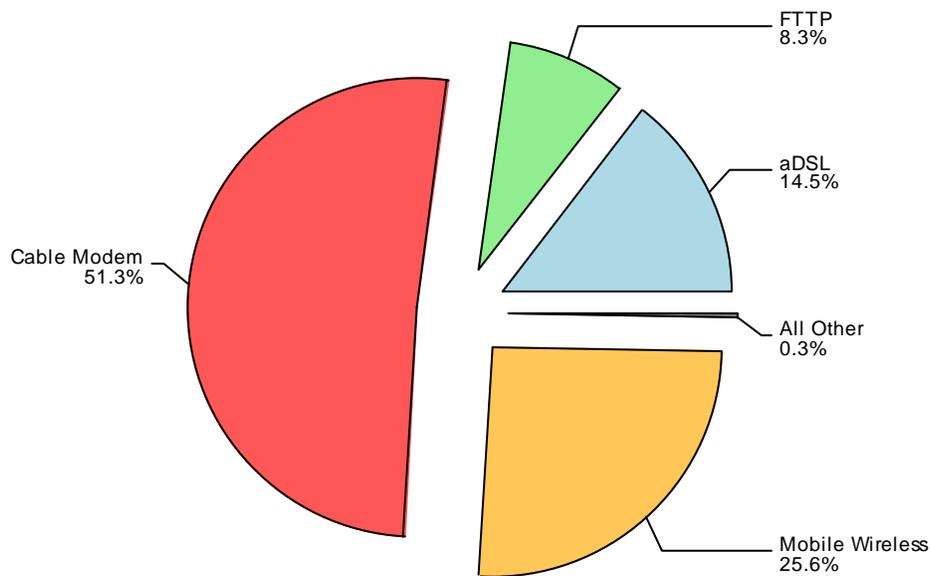


Chart 10
Residential Fixed Connections over 200 kbps in at Least One Direction 2006-2011
 (Shares of selected technologies)

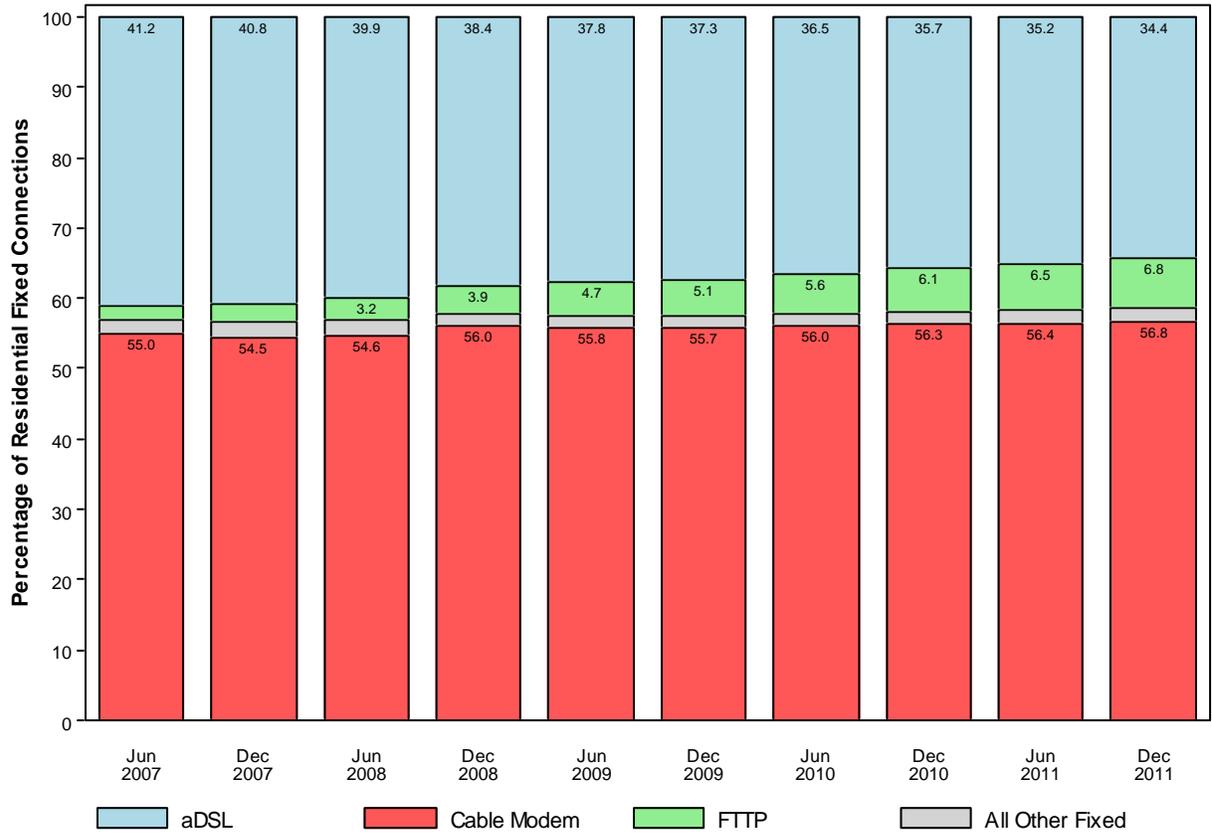


Chart 11
Residential Fixed Connections over 200 kbps in at Least One Direction 2007-2011
 (Net adds for selected technologies)

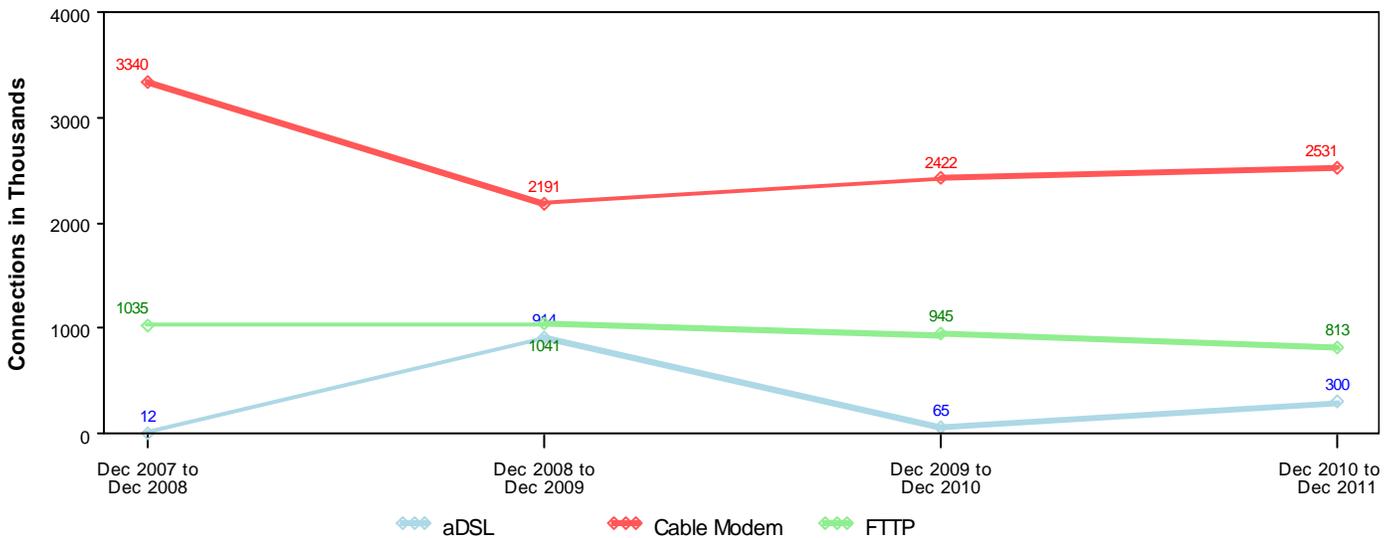


Chart 12
Residential Fixed Connections by Technology as of December 31, 2011
 (Shares of selected technologies for selected speeds, connections in thousands)

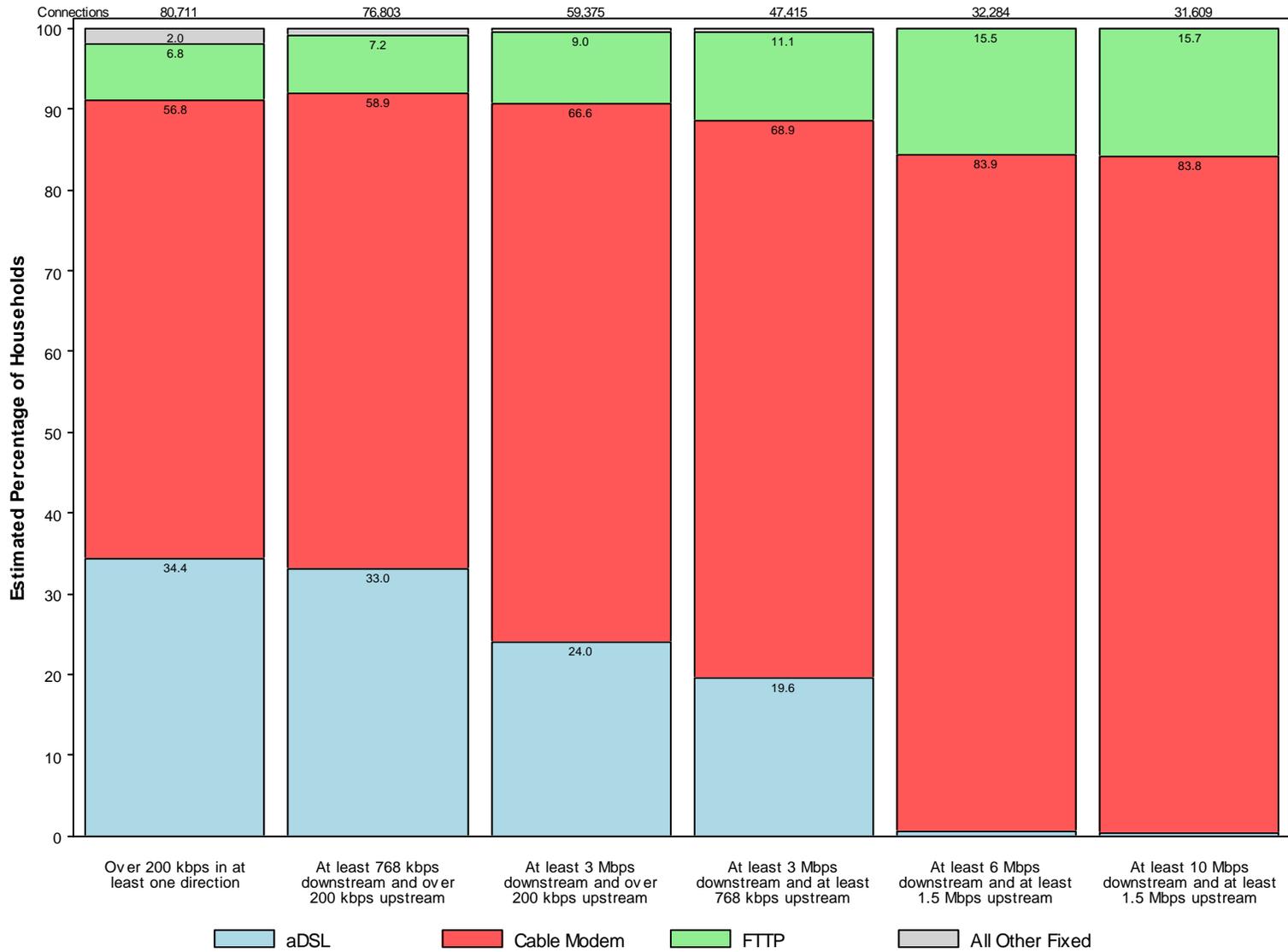


Table 9
Residential Connections by Technology and Speed (BTOP/BIP Definition)
as of December 31, 2011
(In thousands)

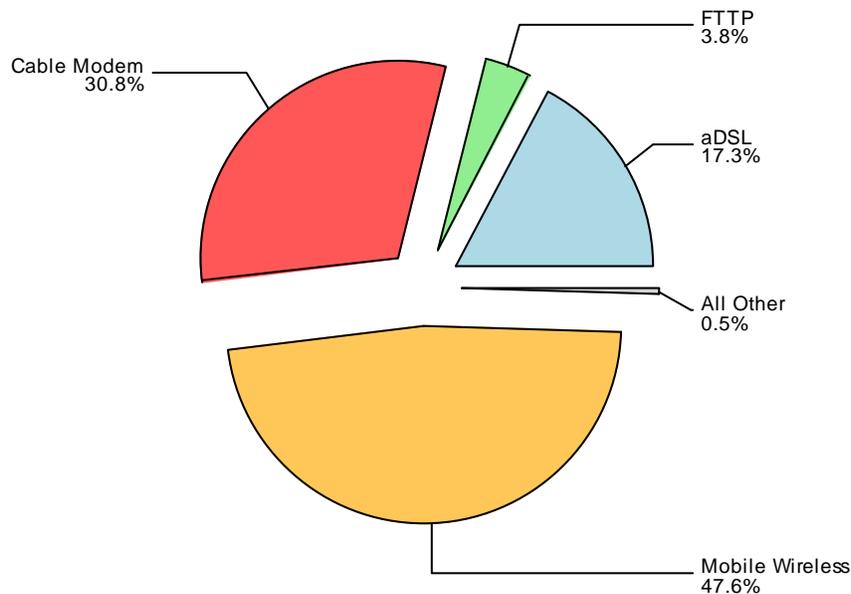
<i>Technology</i>	<i>At Most 200 kbps Upstream or less than 768 kbps Downstream</i>	<i>Over 200 kbps Upstream and at least 768 kbps Downstream</i>	<i>Total</i>
aDSL	2,399	25,367	27,766
sDSL	21	37	58
Other Wireline	3	34	37
Cable Modem	623	45,203	45,826
FtTP	15	5,501	5,516
Satellite	746	140	886
Fixed Wireless	102	518	620
Mobile Wireless	36,137	69,856	105,993
Power Line and Other	0	3	3
Total	40,045	146,659	186,704

= Rounds to Zero.

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

Source: FCC Form 477, Parts I and VI.

Chart 13
Residential Connections (BTOP/BIP Definition) by Technology
as of December 31, 2011



Note: The BTOP/BIP definition is advertised speeds of at least 768 kbps downstream and 200 kbps upstream to end users.
Source: FCC Form 477, Parts I and VI.

Table 10
Connections by Downstream Speed Tier and Technology as of December 31, 2011
(In thousands)

Technology	Downstream Speed								Total
	Greater than 200 kbps and less than 768 kbps	At least 768 kbps and less than 1.5 Mbps	At least 1.5 Mbps and less than 3 Mbps	At least 3 Mbps and less than 6 Mbps	At least 6 Mbps and less than 10 Mbps	At least 10 Mbps and less than 25 Mbps	At least 25 Mbps and less than 100 Mbps	At least 100 Mbps	
aDSL	1,926	5,034	8,069	10,288	4,221	1,716	84	#	31,338
sDSL	48	47	30	*	*	11	#	#	151
Other Wireline	51	65	447	106	23	38	38	24	792
Cable Modem	150	1,265	4,935	3,220	5,383	27,751	5,516	36	48,257
FTTP	18	65	118	220	149	4,336	932	47	5,884
Satellite	393	552	*	*	0	0	0	0	1,190
Fixed Wireless	93	178	209	169	32	13	1	1	696
Mobile Wireless	41,082	6,846	63,062	7,781	*	*	0	0	142,066
Power Line and Other	0	0	*	0	0	*	0	0	3
Total	43,761	14,053	77,110	21,803	29,517	37,452	6,573	108	230,376

Percentages									
aDSL	0.8	2.2	3.5	4.5	1.8	0.7	0.0	0.0	13.6
sDSL	0.0	0.0	0.0	*	*	0.0	0.0	0.0	0.1
Other Wireline	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Cable Modem	0.1	0.5	2.1	1.4	2.3	12.0	2.4	0.0	20.9
FTTP	0.0	0.0	0.1	0.1	0.1	1.9	0.4	0.0	2.6
Satellite	0.2	0.2	*	*	0.0	0.0	0.0	0.0	0.5
Fixed Wireless	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Mobile Wireless	17.8	3.0	27.4	3.4	*	*	0.0	0.0	61.7
Power Line and Other	0.0	0.0	*	0.0	0.0	*	0.0	0.0	0.0
Total	19.0	6.1	33.5	9.5	12.8	16.3	2.9	0.0	100.0

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

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

Source: FCC Form 477, Part I.

Table 11
Residential Connections by Downstream Speed Tier and Technology as of December 31, 2011
(In thousands)

Technology	Downstream Speed								Total
	Greater than 200 kbps and less than 768 kbps	At least 768 kbps and less than 1.5 Mbps	At least 1.5 Mbps and less than 3 Mbps	At least 3 Mbps and less than 6 Mbps	At least 6 Mbps and less than 10 Mbps	At least 10 Mbps and less than 25 Mbps	At least 25 Mbps and less than 100 Mbps	At least 100 Mbps	
aDSL	1,789	4,637	7,067	8,729	3,892	1,574	79	#	27,766
sDSL	21	20	4	*	*	9	#	0	58
Other Wireline	3	6	12	13	1	#	#	1	37
Cable Modem	132	1,237	4,858	2,834	5,052	26,365	5,324	24	45,826
FTTP	14	56	96	194	137	4,140	868	12	5,516
Satellite	259	518	*	*	0	0	0	0	886
Fixed Wireless	85	160	186	151	28	10	#	#	620
Mobile Wireless	32,565	6,216	50,759	2,833	*	*	0	0	105,993
Power Line and Other	0	0	*	0	0	*	0	0	3
Total	34,868	12,849	63,093	14,756	19,317	35,511	6,272	37	186,704

Percentages									
aDSL	1.0	2.5	3.8	4.7	2.1	0.8	0.0	0.0	14.9
sDSL	0.0	0.0	0.0	*	*	0.0	0.0	0.0	0.0
Other Wireline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cable Modem	0.1	0.7	2.6	1.5	2.7	14.1	2.9	0.0	24.5
FTTP	0.0	0.0	0.1	0.1	0.1	2.2	0.5	0.0	3.0
Satellite	0.1	0.3	*	*	0.0	0.0	0.0	0.0	0.5
Fixed Wireless	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.3
Mobile Wireless	17.4	3.3	27.2	1.5	*	*	0.0	0.0	56.8
Power Line and Other	0.0	0.0	*	0.0	0.0	*	0.0	0.0	0.0
Total	18.7	6.9	33.8	7.9	10.3	19.0	3.4	0.0	100.0

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

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

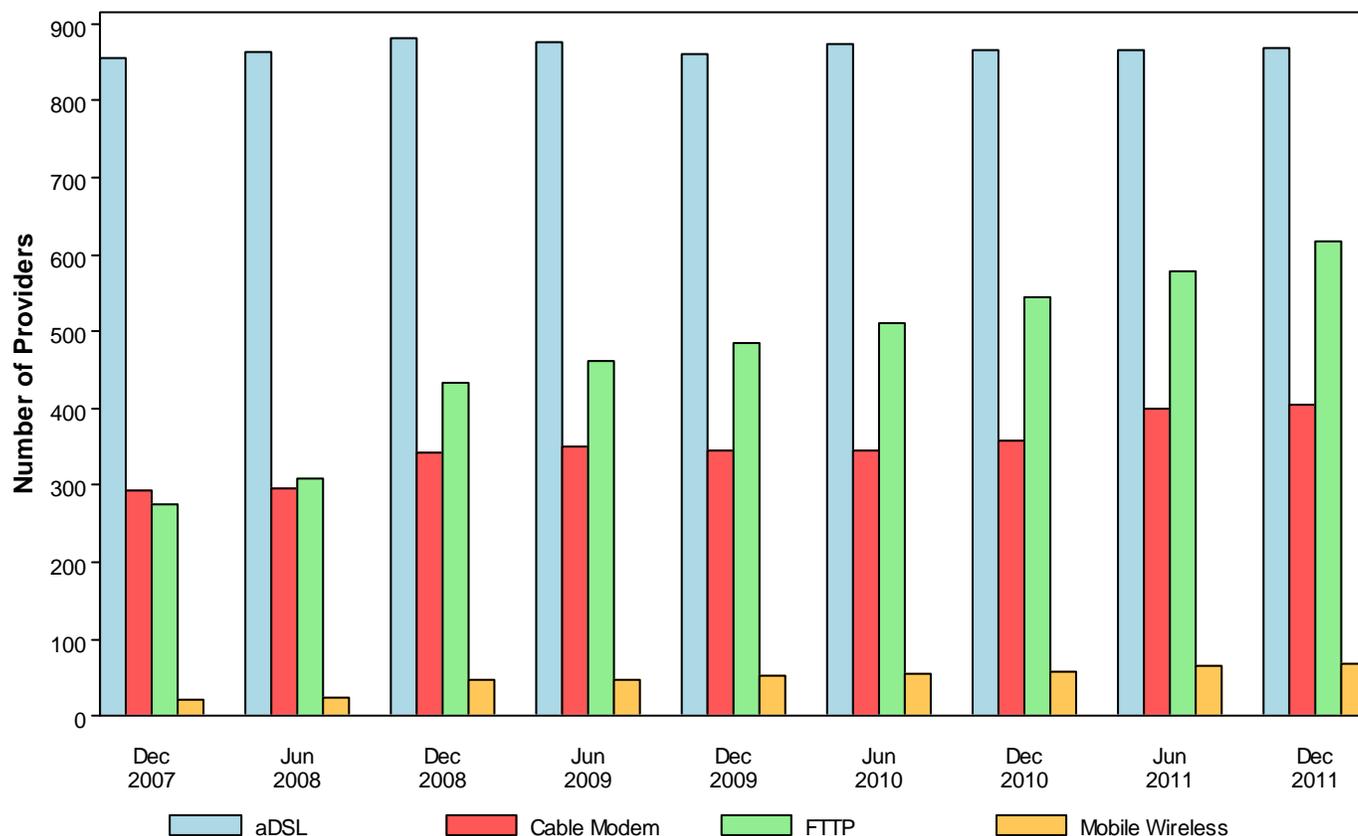
Source: FCC Form 477, Part I.

Table 12
Nationwide Number of Providers of Connections over 200 kbps in at Least One Direction
by Technology 2007-2011

Technology	2007		2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
aDSL	856	863	881	876	862	875	865	867	869	
sDSL	233	238	264	257	261	251	247	252	256	
Other Wireline	250	259	292	283	274	267	270	265	274	
Cable Modem	292	296	342	351	345	345	357	400	404	
FTTP	276	308	432	462	485	510	545	579	618	
Satellite	5	4	5	4	4	4	4	5	6	
Fixed Wireless	514	505	620	621	607	625	646	672	712	
Mobile Wireless	22	24	47	48	51	55	57	64	69	
Power Line and Other	7	6	5	6	6	5	7	4	5	
Total	1,399	1,395	1,562	1,551	1,526	1,536	1,566	1,624	1,681	

Note: Some historical data have been revised. Multiple Form 477 filers within a holding company structure count as one provider.
Source: FCC Form 477, Part I.

Chart 14
Nationwide Number of Providers of Connections over 200 kbps in at Least One Direction
Selected Technologies 2007-2011



Detailed Summary Statistics: The States

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Table 13
Residential Fixed Connections (Approximating the National Broadband Availability Target)
and Households by State as of December 31, 2011
 (Connections with advertised speeds at least 3 Mbps down and 768 up and households, in thousands)

<i>State</i>	<i>Connections</i>	<i>Households</i>	<i>Subscribership Ratio</i>
Alabama	500	1,902	0.26
Alaska	*	260	*
American Samoa	0	11	0.00
Arizona	1,095	2,440	0.45
Arkansas	248	1,159	0.21
California	4,903	12,712	0.39
Colorado	1,123	2,005	0.56
Connecticut	728	1,372	0.53
Delaware	230	347	0.66
District of Columbia	167	268	0.62
Florida	3,436	7,463	0.46
Georgia	1,369	3,648	0.38
Guam	*	51	*
Hawaii	*	456	*
Idaho	137	593	0.23
Illinois	1,876	4,861	0.39
Indiana	919	2,516	0.37
Iowa	278	1,231	0.23
Kansas	316	1,121	0.28
Kentucky	614	1,732	0.35
Louisiana	503	1,756	0.29
Maine	131	556	0.24
Maryland	1,450	2,156	0.67
Massachusetts	1,825	2,549	0.72
Michigan	1,521	3,848	0.40
Minnesota	889	2,097	0.42
Mississippi	177	1,120	0.16
Missouri	599	2,390	0.25
Montana	141	415	0.34
Nebraska	322	727	0.44
Nevada	395	1,027	0.38
New Hampshire	287	519	0.55
New Jersey	2,351	3,215	0.73
New Mexico	270	806	0.33
New York	3,610	7,345	0.49
North Carolina	532	3,818	0.14
North Dakota	108	283	0.38
Northern Mariana Isl	*	21	*
Ohio	920	4,597	0.20
Oklahoma	381	1,476	0.26
Oregon	772	1,539	0.50
Pennsylvania	2,686	5,025	0.53
Puerto Rico	*	1,230	*
Rhode Island	*	410	*
South Carolina	388	1,831	0.21
South Dakota	133	326	0.41
Tennessee	863	2,522	0.34
Texas	2,670	9,113	0.29
Utah	453	903	0.50
Vermont	145	256	0.56
Virgin Islands	0	56	0.00
Virginia	1,780	3,079	0.58
Washington	1,450	2,657	0.55
West Virginia	218	766	0.28
Wisconsin	600	2,289	0.26
Wyoming	95	231	0.41
Total	47,415	119,103	0.40

= Rounds to Zero; * = Data withheld to maintain firm confidentiality.

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

Sources: FCC Form 477, Part VI (Connections); Geolytics 2011 Block-Level Estimates (Households for U.S. and District of Columbia); Census 2010 (Housing Units for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Table 14
Residential Fixed Connections and Households by State as of December 31, 2011
(Connections over 200 kbps in at least one direction and households, in thousands)

<i>State</i>	<i>Connections</i>	<i>Households</i>	<i>Subscribership Ratio</i>
Alabama	1,072	1,902	0.56
Alaska	177	260	0.68
American Samoa	*	11	*
Arizona	1,698	2,440	0.70
Arkansas	615	1,159	0.53
California	9,464	12,712	0.74
Colorado	1,489	2,005	0.74
Connecticut	1,063	1,372	0.77
Delaware	262	347	0.76
District of Columbia	188	268	0.70
Florida	5,528	7,463	0.74
Georgia	2,333	3,648	0.64
Guam	*	51	*
Hawaii	*	456	*
Idaho	359	593	0.61
Illinois	3,230	4,861	0.66
Indiana	1,574	2,516	0.63
Iowa	794	1,231	0.65
Kansas	746	1,121	0.67
Kentucky	1,059	1,732	0.61
Louisiana	1,023	1,756	0.58
Maine	398	556	0.71
Maryland	1,618	2,156	0.75
Massachusetts	2,016	2,549	0.79
Michigan	2,458	3,848	0.64
Minnesota	1,420	2,097	0.68
Mississippi	543	1,120	0.48
Missouri	1,436	2,390	0.60
Montana	260	415	0.63
Nebraska	490	727	0.67
Nevada	666	1,027	0.65
New Hampshire	410	519	0.79
New Jersey	2,564	3,215	0.80
New Mexico	462	806	0.57
New York	5,366	7,345	0.73
North Carolina	2,560	3,818	0.67
North Dakota	192	283	0.68
Northern Mariana Isl	*	21	*
Ohio	3,082	4,597	0.67
Oklahoma	842	1,476	0.57
Oregon	1,043	1,539	0.68
Pennsylvania	3,529	5,025	0.70
Puerto Rico	513	1,230	0.42
Rhode Island	304	410	0.74
South Carolina	1,116	1,831	0.61
South Dakota	214	326	0.66
Tennessee	1,429	2,522	0.57
Texas	5,758	9,113	0.63
Utah	640	903	0.71
Vermont	191	256	0.75
Virgin Islands	22	56	0.39
Virginia	2,111	3,079	0.69
Washington	1,880	2,657	0.71
West Virginia	438	766	0.57
Wisconsin	1,510	2,289	0.66
Wyoming	147	231	0.63
Total	80,711	119,103	0.68

= Rounds to Zero; * = Data withheld to maintain firm confidentiality.

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

Sources: FCC Form 477, Part VI (Connections); Geolytics 2011 Block-Level Estimates (Households for U.S. and District of Columbia); Census 2010 (Housing Units for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Table 15
Connections by Type of End User by State as of December 31, 2011
(Connections over 200 kbps in at least one direction, in thousands)

State	Connections		Percentages		Total
	Residential	Business	Residential	Business	
Alabama	2,652	365	87.9	12.1	3,018
Alaska	467	72	86.6	13.4	539
American Samoa	*	*	*	*	*
Arizona	3,787	659	85.2	14.8	4,446
Arkansas	1,657	238	87.4	12.6	1,895
California	23,152	5,586	80.6	19.4	28,738
Colorado	3,379	785	81.2	18.8	4,164
Connecticut	2,379	511	82.3	17.7	2,890
Delaware	580	126	82.2	17.8	706
District of Columbia	561	618	47.6	52.4	1,179
Florida	11,309	2,983	79.1	20.9	14,292
Georgia	5,642	1,363	80.5	19.5	7,005
Guam	74	16	82.6	17.4	90
Hawaii	949	162	85.4	14.6	1,111
Idaho	841	182	82.2	17.8	1,023
Illinois	7,810	1,969	79.9	20.1	9,779
Indiana	3,533	622	85.0	15.0	4,154
Iowa	1,513	290	83.9	16.1	1,803
Kansas	1,606	606	72.6	27.4	2,212
Kentucky	2,373	467	83.6	16.4	2,840
Louisiana	2,841	468	85.9	14.1	3,309
Maine	709	102	87.4	12.6	811
Maryland	3,906	831	82.5	17.5	4,737
Massachusetts	4,332	933	82.3	17.7	5,266
Michigan	5,042	1,663	75.2	24.8	6,705
Minnesota	3,076	840	78.6	21.4	3,916
Mississippi	1,654	194	89.5	10.5	1,848
Missouri	3,334	903	78.7	21.3	4,237
Montana	583	83	87.5	12.5	666
Nebraska	991	233	81.0	19.0	1,225
Nevada	1,745	370	82.5	17.5	2,115
New Hampshire	796	139	85.1	14.9	936
New Jersey	5,937	1,264	82.4	17.6	7,202
New Mexico	1,111	178	86.2	13.8	1,289
New York	12,307	2,910	80.9	19.1	15,217
North Carolina	5,336	1,278	80.7	19.3	6,614
North Dakota	441	76	85.4	14.6	517
Northern Mariana Isl	*	*	*	*	*
Ohio	6,756	1,482	82.0	18.0	8,239
Oklahoma	2,195	362	85.8	14.2	2,557
Oregon	2,359	490	82.8	17.2	2,849
Pennsylvania	7,698	1,515	83.6	16.4	9,213
Puerto Rico	1,459	177	89.2	10.8	1,636
Rhode Island	638	140	82.1	17.9	778
South Carolina	2,407	423	85.0	15.0	2,830
South Dakota	488	65	88.3	11.7	553
Tennessee	3,549	794	81.7	18.3	4,343
Texas	15,516	4,412	77.9	22.1	19,928
Utah	1,511	397	79.2	20.8	1,907
Vermont	355	62	85.1	14.9	417
Virgin Islands	66	9	88.5	11.5	75
Virginia	4,930	1,261	79.6	20.4	6,190
Washington	4,257	1,092	79.6	20.4	5,349
West Virginia	897	149	85.7	14.3	1,046
Wisconsin	2,865	703	80.3	19.7	3,568
Wyoming	343	53	86.5	13.5	396
Total	186,704	43,672	81.0	19.0	230,376

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I and VI.

Table 16
Connections by Technology by State as of December 31, 2011
(Connections over 200 kbps in at least one direction, in thousands)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Alabama	538	5	*	576	8	*	7	1,839	0	3,018
Alaska	77	3	1	*	1	*	5	334	0	539
American Samoa	*	*	0	*	*	0	*	0	0	*
Arizona	590	1	*	1,169	5	*	27	2,618	0	4,446
Arkansas	343	#	*	301	5	*	2	1,214	0	1,895
California	4,417	13	*	5,034	667	*	31	18,369	0	28,738
Colorado	*	1	23	848	6	*	46	2,533	0	4,164
Connecticut	*	1	6	723	4	*	*	1,732	0	2,890
Delaware	*	#	4	*	*	*	0	424	0	706
District of Columbia	*	1	6	*	11	*	*	963	0	1,179
Florida	1,998	1	*	3,549	379	*	7	8,267	0	14,292
Georgia	1,282	1	*	1,190	27	*	3	4,435	0	7,005
Guam	*	*	*	*	0	0	*	*	0	90
Hawaii	*	*	1	*	2	*	*	720	0	1,111
Idaho	191	#	*	158	3	*	30	628	0	1,023
Illinois	1,549	7	*	1,857	15	*	44	6,231	0	9,779
Indiana	765	2	*	801	69	*	33	2,446	0	4,154
Iowa	389	2	*	397	35	*	25	933	0	1,803
Kansas	275	2	*	456	40	*	27	1,392	0	2,212
Kentucky	501	4	*	597	15	*	8	1,685	0	2,840
Louisiana	437	2	*	612	37	*	4	2,177	0	3,309
Maine	136	4	*	282	4	*	3	373	0	811
Maryland	*	2	17	826	*	*	1	2,992	0	4,737
Massachusetts	*	2	19	1,415	*	*	2	3,084	0	5,266
Michigan	906	6	*	1,643	8	*	29	4,036	0	6,705
Minnesota	621	22	*	820	35	*	18	2,367	0	3,916
Mississippi	299	1	*	263	2	*	#	1,245	0	1,848
Missouri	870	1	15	623	11	*	14	2,656	*	4,237
Montana	122	1	2	*	5	*	16	*	0	666
Nebraska	175	1	*	324	8	*	19	686	0	1,225

Table 16 - Continued
Connections by Technology by State as of December 31, 2011
 (Connections over 200 kbps in at least one direction, in thousands)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Nevada	250	#	7	*	3	*	4	1,388	0	2,115
New Hampshire	88	1	*	342	12	*	#	482	0	936
New Jersey	415	1	28	1,775	*	*	#	4,379	0	7,202
New Mexico	278	#	*	193	3	*	16	782	0	1,289
New York	871	8	47	4,116	*	*	2	9,301	0	15,217
North Carolina	1,050	1	*	1,653	26	*	2	3,830	0	6,614
North Dakota	71	1	*	108	28	*	6	298	0	517
Northern Mariana Isl	*	0	*	*	0	0	*	*	0	*
Ohio	1,184	5	18	2,025	40	*	26	4,908	*	8,239
Oklahoma	387	#	*	487	12	*	14	1,620	0	2,557
Oregon	364	3	*	662	75	*	14	1,705	0	2,849
Pennsylvania	1,101	5	26	2,135	*	*	1	5,389	0	9,213
Puerto Rico	*	*	5	*	*	*	*	1,078	0	1,636
Rhode Island	*	#	1	*	*	*	*	447	0	778
South Carolina	471	*	12	691	30	*	1	1,607	0	2,830
South Dakota	63	*	#	138	20	*	12	*	*	553
Tennessee	593	4	*	853	67	*	4	2,766	0	4,343
Texas	2,952	7	72	2,686	406	*	75	13,613	*	19,928
Utah	310	2	*	310	21	*	45	1,209	0	1,907
Vermont	94	#	*	106	4	*	1	201	0	417
Virgin Islands	*	0	*	*	0	*	*	*	0	75
Virginia	485	1	33	1,154	*	*	4	3,896	0	6,190
Washington	591	3	*	1,329	69	*	11	3,297	0	5,349
West Virginia	*	*	2	285	2	*	2	567	0	1,046
Wisconsin	657	16	*	897	17	*	27	1,920	0	3,568
Wyoming	62	2	*	85	2	*	10	228	0	396
Total	31,338	151	792	48,257	5,884	1,190	696	142,066	3	230,376

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Table 17
Connections by Technology by State as of December 31, 2011
(Connections at least 3 Mbps downstream and 768 kbps upstream, in thousands)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Alabama	103	#	3	422	5	*	1	*	0	752
Alaska	*	*	*	*	1	*	*	*	0	92
American Samoa	0	*	0	0	*	0	*	0	0	*
Arizona	*	*	4	835	4	*	4	*	0	1,548
Arkansas	81	*	2	181	4	*	*	*	0	314
California	1,276	1	23	3,253	649	*	9	*	0	9,183
Colorado	*	*	7	801	3	*	23	579	0	1,783
Connecticut	*	*	2	683	4	0	*	*	0	1,094
Delaware	*	0	1	*	*	0	0	*	0	327
District of Columbia	*	*	3	*	11	0	*	*	0	601
Florida	585	#	17	2,701	*	*	2	2,424	0	6,093
Georgia	372	#	7	1,051	19	*	1	*	0	2,532
Guam	*	*	*	*	0	0	*	0	0	8
Hawaii	*	*	#	*	2	*	0	*	0	562
Idaho	94	*	1	57	2	*	4	*	0	296
Illinois	371	2	*	1,610	12	*	15	1,702	0	3,723
Indiana	275	*	*	644	60	0	6	381	0	1,369
Iowa	161	#	1	125	19	*	6	*	0	379
Kansas	64	#	*	243	26	*	1	465	0	801
Kentucky	193	*	1	446	8	*	3	298	0	948
Louisiana	54	1	2	442	26	*	*	*	0	640
Maine	77	1	#	74	4	*	*	*	0	159
Maryland	*	*	5	779	*	*	#	*	0	2,210
Massachusetts	*	#	8	1,348	*	*	1	617	0	2,579
Michigan	195	1	4	1,384	7	*	2	*	0	2,777
Minnesota	217	11	*	700	22	*	2	698	0	1,653
Mississippi	31	*	1	160	1	*	0	*	0	228
Missouri	222	#	6	405	5	*	1	*	*	1,236
Montana	30	*	#	*	4	*	1	0	0	156
Nebraska	87	*	1	250	3	*	1	*	0	390

Table 17 - Continued
Connections by Technology by State as of December 31, 2011
(Connections at least 3 Mbps downstream and 768 kbps upstream, in thousands)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Nevada	70	*	1	*	2	*	3	363	0	778
New Hampshire	47	#	*	257	12	0	0	*	0	374
New Jersey	240	*	10	1,726	*	*	#	*	0	3,304
New Mexico	120	#	2	166	2	*	1	*	0	415
New York	448	1	20	2,725	*	*	1	*	0	6,210
North Carolina	274	#	*	294	20	*	#	882	0	1,478
North Dakota	23	*	#	84	13	0	2	*	0	143
Northern Mariana Isl	*	0	*	0	0	0	*	0	0	*
Ohio	471	#	*	532	37	*	3	1,236	0	2,282
Oklahoma	80	*	1	314	7	*	4	191	0	598
Oregon	136	#	1	621	71	*	5	*	0	1,205
Pennsylvania	550	*	8	1,812	*	*	#	*	0	3,980
Puerto Rico	*	*	*	*	*	*	*	*	0	242
Rhode Island	*	*	#	*	*	0	*	*	0	435
South Carolina	108	*	4	294	19	*	#	*	0	713
South Dakota	13	0	#	123	11	*	1	*	0	168
Tennessee	101	#	5	767	50	*	#	*	0	1,445
Texas	891	#	18	1,553	365	*	39	3,432	*	6,298
Utah	146	*	2	284	20	*	33	*	0	868
Vermont	60	*	#	96	4	0	*	0	0	161
Virgin Islands	0	0	*	0	0	0	*	0	0	*
Virginia	257	#	14	1,067	*	*	2	*	0	2,738
Washington	238	*	6	1,247	63	*	3	*	0	2,313
West Virginia	3	0	#	228	1	*	#	*	0	246
Wisconsin	160	2	3	472	11	*	4	*	0	1,059
Wyoming	20	*	*	*	1	*	1	0	0	106
Total	10,344	27	228	34,693	5,594	#	187	30,918	#	81,991

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Table 18
Percentage of Connections by Downstream Speed by State as of December 31, 2011
 (Connections over 200 kbps in at least one direction)

State	Over 200 kbps Upstream and				
	% over 200 kbps Downstream	% at least 768 kbps Downstream	% at least 3 Mbps Downstream	% at least 6 Mbps Downstream	% at least 10 Mbps Downstream
Alabama	92.9	75.0	34.3	26.9	15.4
Alaska	93.8	89.2	23.9	17.6	10.5
American Samoa	*	*	*	*	*
Arizona	93.7	73.6	42.0	34.4	23.7
Arkansas	94.5	80.5	23.4	15.8	11.2
California	93.0	78.1	35.2	25.8	15.2
Colorado	94.5	77.6	43.8	38.3	23.8
Connecticut	94.4	76.1	40.9	33.5	23.2
Delaware	93.0	73.0	48.2	41.9	32.9
District of Columbia	92.9	73.8	51.1	45.4	14.1
Florida	94.5	85.0	50.6	40.2	24.6
Georgia	92.9	77.2	43.1	30.6	18.1
Guam	*	*	*	*	*
Hawaii	96.7	84.7	51.6	40.8	20.5
Idaho	91.2	68.4	40.4	22.9	9.5
Illinois	94.7	81.6	42.3	33.0	20.4
Indiana	93.2	75.8	38.3	29.2	17.5
Iowa	93.4	73.8	38.3	27.4	18.5
Kansas	92.2	78.5	46.5	34.0	12.1
Kentucky	93.0	83.6	41.4	26.5	16.6
Louisiana	92.5	82.8	27.1	18.9	13.7
Maine	92.0	77.5	41.5	32.7	9.1
Maryland	92.6	74.6	47.1	38.7	30.2
Massachusetts	93.5	74.8	49.2	42.6	34.3
Michigan	92.3	75.4	45.6	35.4	20.8
Minnesota	93.6	76.8	47.6	39.2	23.8
Mississippi	94.7	65.2	22.3	12.8	8.5
Missouri	93.9	84.4	36.9	25.4	11.8
Montana	86.6	53.7	26.0	21.1	2.7
Nebraska	89.0	62.8	38.1	26.7	19.8

Table 18 - Continued
Percentage of Connections by Downstream Speed by State as of December 31, 2011
 (Connections over 200 kbps in at least one direction)

State	Over 200 kbps Upstream and				
	% over 200 kbps Downstream	% at least 768 kbps Downstream	% at least 3 Mbps Downstream	% at least 6 Mbps Downstream	% at least 10 Mbps Downstream
Nevada	95.3	84.1	44.6	32.0	19.8
New Hampshire	91.4	67.4	47.4	39.8	31.5
New Jersey	92.6	72.1	46.1	40.3	32.3
New Mexico	92.2	71.1	35.0	30.0	13.0
New York	92.8	75.5	44.3	35.8	24.2
North Carolina	91.3	72.4	47.0	35.3	9.2
North Dakota	91.5	66.1	36.0	26.8	20.0
Northern Mariana Isl	*	*	*	*	*
Ohio	89.2	68.2	43.0	32.5	11.0
Oklahoma	95.2	89.4	31.5	19.1	14.5
Oregon	94.8	79.8	44.5	37.6	26.1
Pennsylvania	92.9	75.4	46.1	35.7	25.5
Puerto Rico	90.1	83.6	23.5	13.7	9.0
Rhode Island	94.1	78.0	56.1	47.4	38.6
South Carolina	91.1	70.1	42.9	32.2	15.1
South Dakota	91.0	68.6	35.6	33.2	25.5
Tennessee	92.2	71.7	38.9	30.6	18.6
Texas	94.9	85.1	35.4	24.2	9.4
Utah	95.4	79.8	48.4	40.3	26.4
Vermont	91.2	72.9	39.5	29.1	15.8
Virgin Islands	94.5	78.5	*	*	*
Virginia	92.2	72.1	45.3	35.6	24.9
Washington	94.6	79.5	45.3	38.8	27.0
West Virginia	94.5	87.7	38.9	36.5	18.7
Wisconsin	94.3	81.4	42.6	32.6	16.3
Wyoming	91.5	56.9	28.6	23.4	3.6
Total	93.2	77.6	41.4	32.0	19.2

* = Data withheld to maintain firm confidentiality.
 Source: FCC Form 477, Part I.

Table 19
ADSL Connections by State 2007-2011
(Connections over 200 kbps in at least one direction, in thousands)

State	2007		2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Alabama	403	431	457	473	496	498	523	536	538	
Alaska	68	72	75	77	77	77	78	79	77	
American Samoa	*	*	*	*	*	*	*	*	*	
Arizona	437	454	466	487	518	527	552	557	590	
Arkansas	249	267	273	298	308	314	330	337	343	
California	4,780	4,755	4,617	4,587	4,568	4,456	4,538	4,471	4,417	
Colorado	573	575	624	641	651	658	663	*	*	
Connecticut	*	*	*	*	*	*	*	*	*	
Delaware	*	*	*	*	*	*	*	*	*	
District of Columbia	*	*	*	*	*	*	*	*	*	
Florida	2,046	2,045	2,005	1,962	1,988	2,006	2,070	2,104	1,998	
Georgia	1,307	1,361	1,240	1,251	1,256	1,129	1,413	1,435	1,282	
Guam	*	*	*	*	*	*	*	*	*	
Hawaii	*	*	*	*	*	*	*	*	*	
Idaho	142	154	160	169	174	177	181	185	191	
Illinois	1,382	1,419	1,503	1,538	1,556	1,537	1,577	1,576	1,549	
Indiana	636	651	672	699	721	725	754	763	765	
Iowa	298	322	336	351	362	373	376	381	389	
Kansas	236	241	243	250	260	264	271	273	275	
Kentucky	367	385	421	431	454	459	473	481	501	
Louisiana	333	354	385	390	404	397	396	407	437	
Maine	118	120	114	123	125	126	125	134	136	
Maryland	514	495	471	440	405	*	350	*	*	
Massachusetts	*	*	*	*	*	*	*	*	*	
Michigan	733	749	780	835	857	860	902	922	906	
Minnesota	496	529	544	573	590	611	618	629	621	
Mississippi	202	220	229	240	255	240	263	267	299	
Missouri	683	712	727	767	805	811	846	862	870	
Montana	102	108	108	111	115	119	119	123	122	
Nebraska	135	143	151	158	164	167	169	173	175	

Table 19 - Continued
ADSL Connections by State 2007-2011
(Connections over 200 kbps in at least one direction, in thousands)

State	2007		2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Nevada	220	225	222	225	229	232	242	245	250	
New Hampshire	100	97	91	91	86	84	85	87	88	
New Jersey	735	700	666	624	568	530	486	449	415	
New Mexico	200	217	231	242	250	259	266	271	278	
New York	1,184	1,169	1,122	1,100	1,046	1,010	957	928	871	
North Carolina	820	870	891	918	969	985	995	1,026	1,050	
North Dakota	56	60	65	64	67	67	69	71	71	
Northern Mariana Isl	*	*	*	*	*	*	*	*	*	
Ohio	1,024	1,034	1,069	1,109	1,127	1,145	1,177	1,190	1,184	
Oklahoma	324	334	338	349	359	361	379	384	387	
Oregon	356	361	371	367	367	362	359	360	364	
Pennsylvania	1,191	1,209	1,231	1,246	1,232	1,202	1,159	1,131	1,101	
Puerto Rico	*	*	*	*	*	*	*	*	*	
Rhode Island	*	*	*	*	*	*	*	*	*	
South Carolina	359	386	400	412	428	437	434	452	471	
South Dakota	48	53	56	58	58	60	58	60	63	
Tennessee	499	535	541	549	559	570	557	576	593	
Texas	2,464	2,475	2,608	2,706	2,784	2,797	2,898	2,943	2,952	
Utah	270	284	299	280	309	312	311	309	310	
Vermont	72	73	61	79	81	84	85	87	94	
Virgin Islands	*	*	*	*	*	*	*	*	*	
Virginia	568	561	553	547	536	527	507	498	485	
Washington	592	600	599	596	593	589	582	583	591	
West Virginia	138	147	152	160	161	162	*	*	*	
Wisconsin	528	556	556	586	612	615	646	658	657	
Wyoming	53	55	57	58	58	59	59	59	62	
Total	29,449	29,964	30,198	30,631	30,987	30,759	31,470	31,611	31,338	

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Note: Some historical data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Table 20
Cable Modem Connections by State 2007-2011
(Connections over 200 kbps in at least one direction, in thousands)

State	2007	2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Alabama	399	417	460	478	497	513	539	556	576
Alaska	*	*	*	*	*	*	*	*	*
American Samoa	0	0	0	0	0	0	*	*	*
Arizona	897	992	1,044	1,039	1,104	1,096	1,161	1,104	1,169
Arkansas	214	236	227	252	262	267	278	288	301
California	3,603	3,799	3,990	4,144	4,224	4,418	4,639	4,853	5,034
Colorado	604	626	659	693	709	744	787	817	848
Connecticut	550	576	615	626	640	672	673	713	723
Delaware	*	*	*	*	*	158	156	164	*
District of Columbia	*	*	*	*	*	*	*	*	*
Florida	2,543	2,631	2,825	2,859	2,992	3,076	3,292	3,313	3,549
Georgia	862	904	974	1,020	1,022	1,052	1,114	1,151	1,190
Guam	*	*	*	*	*	*	*	*	*
Hawaii	*	*	*	*	*	*	*	*	*
Idaho	123	127	121	130	133	137	145	150	158
Illinois	1,570	1,625	1,591	1,575	1,577	1,630	1,696	1,768	1,857
Indiana	439	456	626	641	669	697	728	766	801
Iowa	287	309	330	344	360	376	389	395	397
Kansas	369	380	415	419	435	434	441	447	456
Kentucky	435	482	452	483	497	512	530	565	597
Louisiana	485	481	518	544	559	562	586	593	612
Maine	179	197	202	224	237	259	269	286	282
Maryland	865	871	801	757	768	778	773	797	826
Massachusetts	1,136	1,159	1,291	1,253	1,250	1,339	1,343	1,401	1,415
Michigan	1,265	1,307	1,394	1,431	1,451	1,517	1,537	1,603	1,643
Minnesota	608	622	666	685	701	739	776	800	820
Mississippi	166	188	216	227	232	241	246	258	263
Missouri	498	517	560	561	586	599	604	617	623
Montana	83	90	92	102	108	113	119	127	*
Nebraska	252	262	278	286	295	293	309	316	324

Table 20 - Continued
Cable Modem Connections by State 2007-2011
(Connections over 200 kbps in at least one direction, in thousands)

State	2007		2008		2009		2010		2011	
	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	
Nevada	*	*	*	*	*	*	*	*	*	*
New Hampshire	240	250	285	295	303	329	325	340	342	
New Jersey	1,538	1,586	1,637	1,604	1,623	1,698	1,702	1,759	1,775	
New Mexico	127	137	146	155	158	168	176	190	193	
New York	3,342	3,548	3,749	3,850	3,886	3,982	4,013	4,091	4,116	
North Carolina	1,196	1,266	1,344	1,392	1,444	1,513	1,554	1,566	1,653	
North Dakota	80	83	85	88	93	90	101	96	108	
Northern Mariana Isl	*	*	*	*	*	*	*	*	*	
Ohio	1,498	1,627	1,705	1,757	1,813	1,862	1,895	1,943	2,025	
Oklahoma	373	382	408	429	432	436	468	474	487	
Oregon	531	554	517	528	542	576	608	640	662	
Pennsylvania	1,399	1,492	1,800	1,777	1,835	1,915	1,983	2,057	2,135	
Puerto Rico	*	*	*	*	*	*	*	*	*	
Rhode Island	*	*	*	*	*	*	*	*	*	
South Carolina	496	517	555	582	598	627	660	664	691	
South Dakota	111	115	122	122	127	118	134	124	138	
Tennessee	703	715	718	739	751	784	795	824	853	
Texas	2,183	2,214	1,971	2,280	2,383	2,456	2,459	2,577	2,686	
Utah	*	212	*	243	253	268	283	303	310	
Vermont	*	*	71	80	83	93	97	104	106	
Virgin Islands	0	0	0	0	0	0	0	0	*	
Virginia	921	941	1,096	1,097	1,105	1,114	1,124	1,141	1,154	
Washington	909	944	998	1,102	1,106	1,186	1,239	1,296	1,329	
West Virginia	159	167	205	215	226	220	255	274	285	
Wisconsin	676	711	759	779	802	823	846	870	897	
Wyoming	*	*	64	70	74	76	80	82	85	
Total	36,507	38,190	40,251	41,434	42,439	43,923	45,334	46,698	48,257	

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Note: Some historical data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Table 21
Providers of Connections by Technology by State as of December 31, 2011
(Connections over 200 kbps in at least one direction)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Alabama	24	9	20	21	28	*	21	6	0	81
Alaska	13	4	9	4	6	*	8	6	0	25
American Samoa	*	*	0	*	*	0	*	0	0	*
Arizona	25	7	26	11	25	4	25	6	0	79
Arkansas	21	7	13	16	16	*	8	5	0	55
California	36	20	48	23	28	*	38	10	0	127
Colorado	35	10	35	16	26	*	35	11	0	99
Connecticut	8	8	20	8	13	*	*	4	0	37
Delaware	6	4	17	*	5	*	0	6	0	28
District of Columbia	10	8	23	*	9	*	*	5	0	36
Florida	28	17	49	21	34	*	23	7	0	101
Georgia	33	15	37	32	41	*	13	8	0	105
Guam	*	*	*	*	0	0	*	*	0	5
Hawaii	5	*	7	*	6	*	*	5	0	21
Idaho	25	5	21	13	23	4	16	8	0	61
Illinois	59	22	47	22	34	*	54	12	0	150
Indiana	35	11	29	15	37	*	44	7	0	97
Iowa	129	28	28	41	76	*	71	11	0	210
Kansas	40	14	25	28	38	*	32	11	0	96
Kentucky	26	8	22	28	22	*	18	9	0	88
Louisiana	17	7	21	16	18	*	6	6	0	57
Maine	13	10	15	5	11	*	4	5	0	31
Maryland	17	11	32	12	16	*	7	6	0	62
Massachusetts	14	9	31	11	11	*	8	6	0	58
Michigan	41	19	36	18	21	*	30	9	0	100
Minnesota	55	18	31	18	47	*	33	6	0	108
Mississippi	20	5	21	12	13	*	4	6	0	54
Missouri	36	13	29	20	28	*	40	7	*	104
Montana	24	8	16	7	13	*	17	*	0	48
Nebraska	36	9	13	20	28	*	27	8	0	77

Table 21 - Continued
Providers of Connections by Technology by State as of December 31, 2011
(Connections over 200 kbps in at least one direction)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Nevada	18	9	22	6	16	*	9	7	0	54
New Hampshire	14	8	16	6	11	*	5	6	0	39
New Jersey	20	10	38	6	16	*	4	6	0	58
New Mexico	22	10	18	7	12	*	16	10	0	52
New York	43	17	40	19	28	*	16	6	0	99
North Carolina	28	7	27	24	28	*	10	10	0	79
North Dakota	33	9	16	7	16	*	13	5	0	47
Northern Mariana Isl	*	0	*	*	0	0	*	*	0	*
Ohio	42	17	34	29	33	*	25	8	*	109
Oklahoma	40	8	25	16	17	*	17	12	0	84
Oregon	41	15	32	16	34	*	23	6	0	87
Pennsylvania	35	13	38	25	25	*	10	7	0	91
Puerto Rico	*	*	5	*	*	*	*	5	0	15
Rhode Island	7	4	12	4	7	*	*	5	0	26
South Carolina	21	*	18	16	16	*	5	9	0	49
South Dakota	29	4	14	7	20	*	21	4	*	57
Tennessee	23	13	24	17	24	*	18	7	0	82
Texas	69	22	53	34	46	*	61	11	*	170
Utah	17	9	18	7	16	*	13	7	0	50
Vermont	10	4	18	5	8	*	4	4	0	37
Virgin Islands	*	0	*	*	0	*	*	*	0	7
Virginia	28	14	30	15	22	*	18	8	0	73
Washington	31	8	35	17	26	*	25	7	0	87
West Virginia	8	*	16	12	10	*	5	8	0	43
Wisconsin	48	18	26	19	30	*	29	8	0	97
Wyoming	14	6	8	5	5	*	13	7	0	37
Total	869	256	274	404	618	6	712	69	5	1,681

* Indicates one to three providers.
Source: FCC Form 477, Part I.

Table 22
Percentage of Residential End-User Premises with Access to Services
over 200 kbps in at Least One Direction by State as of December 31, 2011

<i>State</i>	<i>xDSL Availability Where ILECs Offer Local Telephone Service</i>	<i>Cable Modem Availability Where Cable Systems Offer Cable TV Service</i>
Alabama	83	94
Alaska	80	*
American Samoa	*	*
Arizona	91	99
Arkansas	82	84
California	88	99
Colorado	*	98
Connecticut	*	99
Delaware	*	*
District of Columbia	*	*
Florida	88	97
Georgia	94	93
Guam	*	*
Hawaii	*	*
Idaho	87	98
Illinois	89	97
Indiana	87	97
Iowa	86	93
Kansas	87	92
Kentucky	88	94
Louisiana	85	95
Maine	85	96
Maryland	*	99
Massachusetts	*	99
Michigan	80	98
Minnesota	91	94
Mississippi	81	91
Missouri	85	94
Montana	84	*
Nebraska	88	95
Nevada	92	*
New Hampshire	87	98
New Jersey	79	97
New Mexico	88	94
New York	75	96
North Carolina	94	95
North Dakota	89	92
Northern Mariana Isl	*	*
Ohio	89	95
Oklahoma	83	94
Oregon	92	98
Pennsylvania	82	97
Puerto Rico	*	*
Rhode Island	*	*
South Carolina	91	95
South Dakota	82	87
Tennessee	86	98
Texas	83	97
Utah	95	94
Vermont	89	71
Virgin Islands	*	*
Virginia	67	96
Washington	90	97
West Virginia	*	93
Wisconsin	87	98
Wyoming	84	92
Total	85	97

* = Data withheld to maintain firm confidentiality.

Note: This table summarizes responses to Form 477 questions about service availability, as opposed to subscribership. xDSL includes both asymmetric and symmetric DSL. Each state-specific estimate is a weighted average of the availability percentages that ILECs or cable system operators report for the areas they serve. Reported xDSL availability is weighted by ILEC end-user switched access lines and VoIP lines. Reported cable modem availability is weighted by cable TV subscribers. The weighted averages include ILECs or cable system operators that report no availability. Figures are presented to the nearest percent.

Source: FCC Form 477, Parts I and II; Warren Communications News, Inc., Television & Cable Factbook: Online (Cable General Information, February 2010).

Detailed Summary Statistics: Counties and Census Tracts

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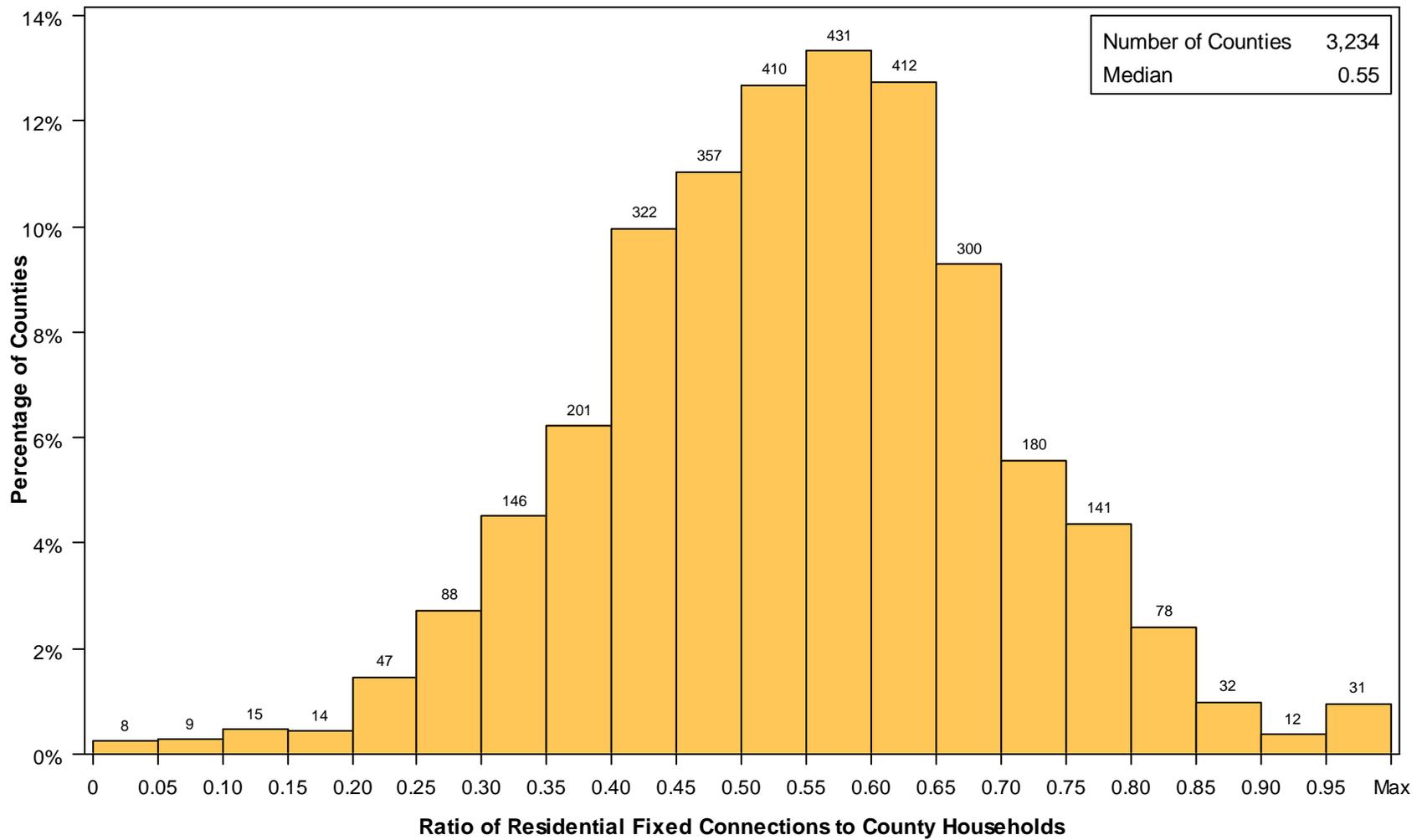
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Chart 15
Distribution of Counties by Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to County Households as of December 31, 2011



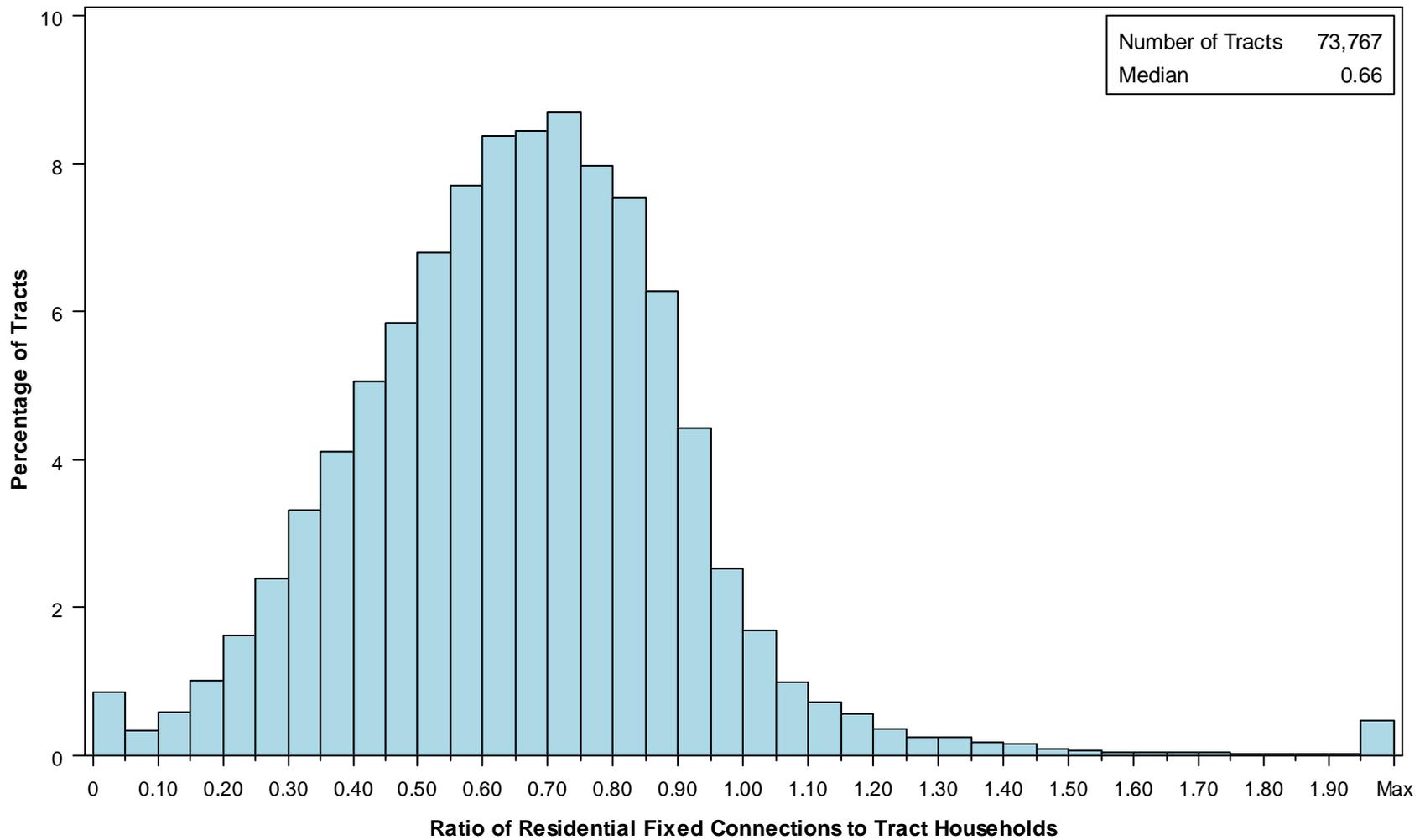
Note: Ratios over 1 were set to 1. See Technical Notes at the end of the report.
 Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates; and Census 2010. 2010 housing units proxv households in island area counties.

Table 23
Distribution of Counties by Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to County Households by Technology as of December 31, 2011

<i>Technology</i>	<i>Ratio of Residential Fixed Connections to County Households</i>										
	<i>Zero</i>	<i>Greater than 0 and no more than 5%</i>	<i>Greater than 5 and no more than 10%</i>	<i>Greater than 10 and no more than 20%</i>	<i>Greater than 20 and no more than 30%</i>	<i>Greater than 30 and no more than 40%</i>	<i>Greater than 40 and no more than 50%</i>	<i>Greater than 50 and no more than 60%</i>	<i>Greater than 60 and no more than 80%</i>	<i>Greater than 80 and no more than 100%</i>	<i>100% or more</i>
aDSL	0.9	2.4	5.0	24.8	31.3	21.7	9.6	3.3	0.6	0.2	0.1
sDSL	82.8	16.0	0.7	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Other Wireline	95.7	4.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Cable Modem	13.5	9.7	10.0	18.2	17.4	14.7	9.9	4.6	1.6	0.1	0.1
FTTP	58.9	29.6	3.9	3.3	2.1	1.0	0.7	0.3	0.2	0.1	0.0
Satellite	0.6	85.5	11.4	2.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Fixed Wireless	44.0	44.4	7.1	3.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0
Power Line	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Other	99.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.1	0.2	0.3	0.9	4.2	10.7	21.0	26.0	31.9	4.1	0.7

Note: Figures may not sum to totals due to rounding. See Technical Notes at the end of the report.
Sources: FCC Form 477, Part VI; Geolytics 2011 Block-Level Estimates; and Census 2010. 2010 housing units proxy households in island area counties.

Chart 16
Distribution of Census Tracts by Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Tract Households as of December 31, 2011



Note: Ratios over 2 were set to 2. See Technical Notes at the end of the report.
 Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates; and Census 2000.

Table 24
Distribution of Census Tracts by Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Tract Households by Technology as of December 31, 2011

<i>Technology</i>	<i>Ratio of Residential Fixed Connections to Tract Households</i>										
	<i>Zero</i>	<i>Greater than 0 and no more than 5%</i>	<i>Greater than 5 and no more than 10%</i>	<i>Greater than 10 and no more than 20%</i>	<i>Greater than 20 and no more than 30%</i>	<i>Greater than 30 and no more than 40%</i>	<i>Greater than 40 and no more than 50%</i>	<i>Greater than 50 and no more than 60%</i>	<i>Greater than 60 and no more than 80%</i>	<i>Greater than 80 and no more than 100%</i>	<i>100% or more</i>
aDSL	5.2	8.1	8.8	25.6	23.2	15.6	8.2	3.2	1.4	0.3	0.3
sDSL	96.3	3.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Wireline	99.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cable Modem	6.3	3.5	2.9	9.9	15.7	18.3	17.0	13.0	11.1	1.6	0.8
FTTP	79.3	8.2	1.6	2.3	2.0	2.0	1.5	1.1	1.1	0.5	0.3
Satellite	50.8	44.3	3.4	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Fixed Wireless	84.3	12.3	1.7	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0
Power Line	99.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Other	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1.1	0.2	0.3	1.6	4.0	7.4	10.9	14.4	33.3	20.7	6.0

Note: Figures may not sum to totals due to rounding. See Technical Notes at the end of the report.
Sources: FCC Form 477, Part VI; Geolytics 2011 Block-Level Estimates; and Census 2000.

Table 25
Percentage of Census Tracts with Residential Fixed Connections by Technology as of December 31, 2011
 (Connections over 200 kbps in at least one direction)

<i>Technology</i>	<i>Number of Providers</i>							
	<i>Zero</i>	<i>One</i>	<i>Two</i>	<i>Three</i>	<i>Four</i>	<i>Five</i>	<i>Six</i>	<i>Seven or More</i>
aDSL	5.2	45.6	35.4	11.7	1.8	0.3	0.0	0.0
sDSL	96.3	3.5	0.2	0.0	0.0	0.0	0.0	0.0
Other Wireline	99.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Cable Modem	6.3	80.7	12.4	0.6	0.0	0.0	0.0	0.0
FTTP	79.3	20.1	0.5	0.0	0.0	0.0	0.0	0.0
Satellite	50.8	22.3	24.3	2.7	0.0	0.0	0.0	0.0
Fixed Wireless	84.3	12.0	3.0	0.6	0.1	0.0	0.0	0.0
Power Line	99.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0
aDSL and/or Cable Modem and/or FTTP	1.4	5.8	39.1	34.7	15.1	3.2	0.6	0.1
Any Technology	1.1	2.1	19.7	28.1	23.8	14.4	6.8	4.0

Note: Figures may not sum to totals due to rounding.
 Sources: FCC Form 477, Part VI and Census 2010.

Table 26
Distribution of Counties by Ratio of Residential Fixed Connections to County Households by State as of December 31, 2011
(Connections over 200 kbps in at least one direction)

State	Counties	Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to County Households										
		Zero	Greater than 0 and no more than 5%	Greater than 5 and no more than 10%	Greater than 10 and no more than 20%	Greater than 20 and no more than 30%	Greater than 30 and no more than 40%	Greater than 40 and no more than 50%	Greater than 50 and no more than 60%	Greater than 60 and no more than 80%	Greater than 80 and no more than 100%	100% or more
Alabama	67	0	0	0	0	5	13	27	10	12	0	0
Alaska	29	0	0	2	1	2	4	6	4	9	0	1
American Samoa	5	2	1	0	1	1	0	0	0	0	0	0
Arizona	15	0	0	0	0	0	2	1	4	8	0	0
Arkansas	75	0	0	0	0	4	25	28	12	6	0	0
California	58	0	0	0	1	0	1	5	9	33	8	1
Colorado	64	0	0	0	0	1	2	8	19	22	6	6
Connecticut	8	0	0	0	0	0	0	0	0	4	4	0
Delaware	3	0	0	0	0	0	0	0	0	3	0	0
District of Columbia	1	0	0	0	0	0	0	0	0	1	0	0
Florida	67	0	0	0	0	3	0	13	10	28	12	1
Georgia	159	0	0	1	1	11	22	39	34	44	7	0
Guam	1	0	0	0	0	0	0	0	0	0	1	0
Hawaii	5	0	1	0	0	0	0	0	0	2	2	0
Idaho	44	0	0	1	1	2	5	6	14	14	1	0
Illinois	102	0	0	0	2	5	8	26	31	26	2	2
Indiana	92	0	0	0	0	1	4	27	35	23	2	0
Iowa	99	0	0	0	0	0	0	11	42	45	1	0
Kansas	105	0	0	0	0	0	1	20	40	40	4	0
Kentucky	120	0	0	0	0	6	10	32	38	33	1	0
Louisiana	64	0	0	0	0	3	11	18	17	15	0	0
Maine	16	0	0	0	0	0	0	1	2	11	2	0
Maryland	24	0	0	0	0	1	0	2	3	14	4	0
Massachusetts	14	0	0	0	0	0	0	0	0	7	5	2
Michigan	83	0	0	0	0	4	5	21	25	27	1	0
Minnesota	87	0	0	0	0	0	2	8	36	40	1	0
Mississippi	82	0	0	0	2	16	33	15	10	6	0	0
Missouri	115	0	0	1	1	5	21	36	29	22	0	0
Montana	56	0	0	0	0	0	2	16	18	20	0	0
Nebraska	93	0	0	0	0	0	7	22	32	31	1	0

Table 26 - Continued
Distribution of Counties by Ratio of Residential Fixed Connections to County Households by State as of December 31, 2011
(Connections over 200 kbps in at least one direction)

State	Counties	Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to County Households										
		Zero	Greater than 0 and no more than 5%	Greater than 5 and no more than 10%	Greater than 10 and no more than 20%	Greater than 20 and no more than 30%	Greater than 30 and no more than 40%	Greater than 40 and no more than 50%	Greater than 50 and no more than 60%	Greater than 60 and no more than 80%	Greater than 80 and no more than 100%	100% or more
Nevada	17	0	0	0	0	0	2	6	2	7	0	0
New Hampshire	10	0	0	0	0	0	0	0	1	7	2	0
New Jersey	21	0	0	0	0	0	0	0	0	13	8	0
New Mexico	33	0	0	0	0	2	8	7	8	7	1	0
New York	62	0	0	0	0	0	0	3	15	37	6	1
North Carolina	100	0	1	0	0	0	3	24	30	36	5	1
North Dakota	53	0	0	0	0	0	1	5	17	28	2	0
Northern Mariana Isl	4	1	0	0	3	0	0	0	0	0	0	0
Ohio	88	0	0	0	0	0	5	13	24	44	2	0
Oklahoma	77	0	0	0	0	7	18	24	18	10	0	0
Oregon	36	0	0	0	0	0	2	5	13	15	1	0
Pennsylvania	67	0	0	0	0	2	3	3	8	41	9	1
Puerto Rico	78	0	0	0	1	16	24	29	7	1	0	0
Rhode Island	5	0	0	0	0	0	0	0	0	4	1	0
South Carolina	46	0	0	0	0	3	8	10	14	10	1	0
South Dakota	66	0	0	0	0	1	5	6	21	31	2	0
Tennessee	95	0	0	0	1	8	19	28	27	11	1	0
Texas	254	0	0	1	3	13	38	73	71	50	4	1
Utah	29	0	0	0	0	1	2	1	10	14	0	1
Vermont	14	0	0	0	0	0	0	1	2	10	1	0
Virgin Islands	3	0	0	0	0	0	2	1	0	0	0	0
Virginia	134	0	2	3	11	8	15	25	27	25	14	4
Washington	39	0	0	0	0	2	2	4	6	23	2	0
West Virginia	55	0	0	0	0	2	9	14	18	11	1	0
Wisconsin	72	0	0	0	0	0	1	7	21	41	2	0
Wyoming	23	0	0	0	0	0	2	3	6	11	1	0
Total	3,234	3	5	9	29	135	347	680	840	1033	131	22

Note: Figures may not sum to totals due to rounding. See Technical Notes at the end of the report.

Sources: FCC Form 477, Part VI (Connections); Geolytics 2011 Block-Level Estimates (Households for U.S. and District of Columbia); Census 2010 (Housing units for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Table 27
Distribution of Census Tracts by Ratio of Residential Fixed Connections to Tract Households by State as of December 31, 2011
(Connections over 200 kbps in at least one direction)

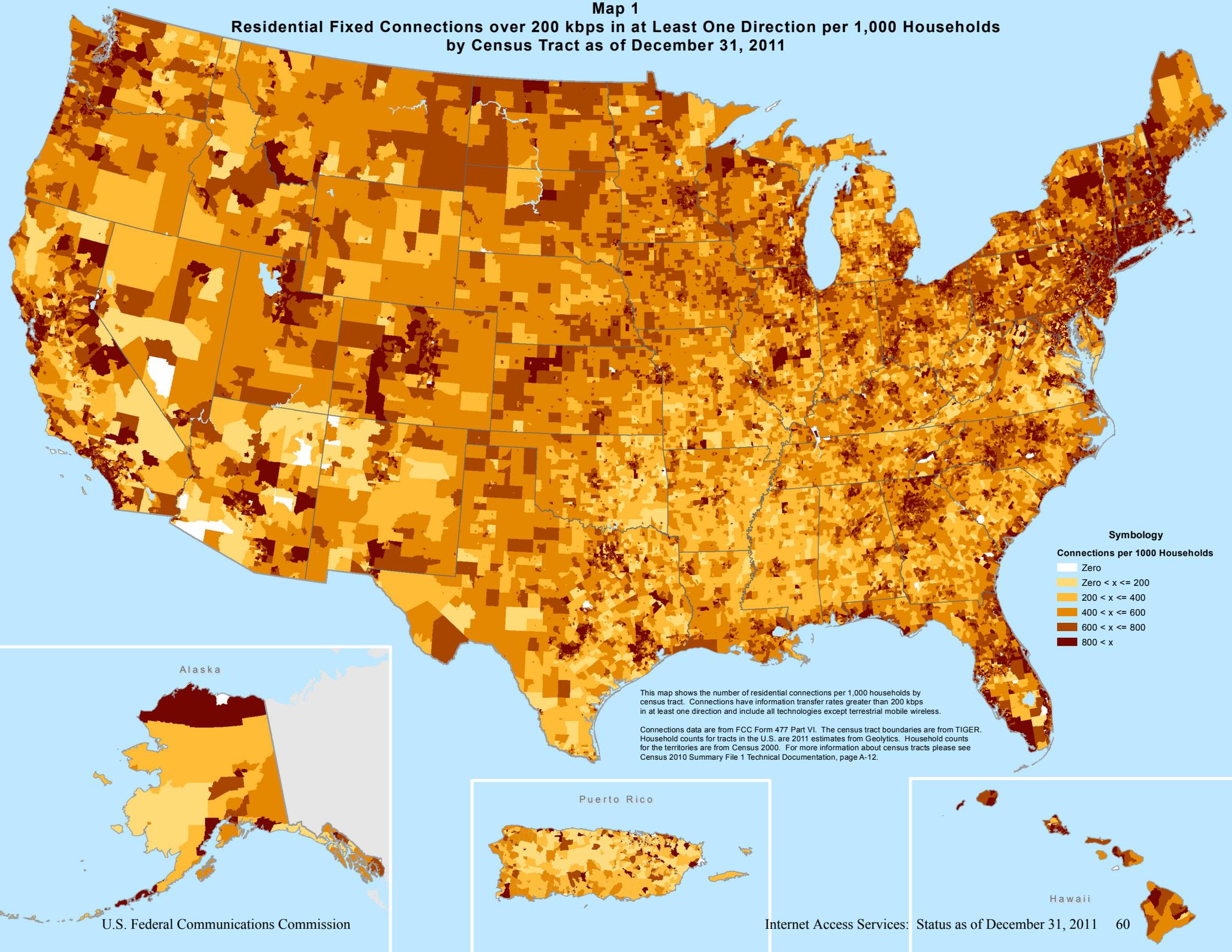
State	Tracts	Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Tract Households										
		Zero	Greater than 0 and no more than 5%	Greater than 5 and no more than 10%	Greater than 10 and no more than 20%	Greater than 20 and no more than 30%	Greater than 30 and no more than 40%	Greater than 40 and no more than 50%	Greater than 50 and no more than 60%	Greater than 60 and no more than 80%	Greater than 80 and no more than 100%	100% or more
Alabama	1,179	2	2	2	30	97	197	224	209	304	91	21
Alaska	167	2	1	2	7	8	7	12	25	78	13	12
American Samoa	18	3	6	1	4	1	1	1	0	0	0	1
Arizona	1,526	18	14	9	21	49	74	147	196	486	421	91
Arkansas	686	0	4	1	20	73	129	138	122	150	42	7
California	8,036	42	18	22	147	278	342	552	817	2,453	2,635	730
Colorado	1,249	12	0	3	2	16	37	90	170	450	394	75
Connecticut	829	3	0	0	0	2	18	44	59	282	402	19
Delaware	215	1	0	1	2	7	15	28	17	52	51	41
District of Columbia	179	1	0	0	1	12	17	13	26	48	53	8
Florida	4,199	29	4	8	19	91	199	403	536	1,430	1,037	443
Georgia	1,964	10	3	0	23	103	190	299	338	624	322	52
Guam	56	7	1	0	2	0	0	2	2	1	2	39
Hawaii	326	7	1	1	3	1	4	9	31	130	99	40
Idaho	298	1	2	2	3	9	17	43	78	114	28	1
Illinois	3,121	6	3	5	40	109	291	420	484	1,127	542	94
Indiana	1,508	3	1	2	10	33	121	258	359	527	186	8
Iowa	825	2	1	0	1	6	23	97	229	401	58	7
Kansas	770	7	1	0	5	19	49	86	187	261	137	18
Kentucky	1,115	7	0	2	18	38	111	182	248	373	108	28
Louisiana	1,136	11	0	0	18	68	169	216	224	323	97	10
Maine	351	0	0	0	0	1	6	24	46	193	68	13
Maryland	1,394	9	1	2	34	111	116	122	121	270	264	344
Massachusetts	1,471	10	2	1	5	12	42	96	135	481	474	213
Michigan	2,767	22	3	3	46	162	275	293	382	1,035	526	20
Minnesota	1,335	4	1	2	5	10	48	120	255	643	233	14
Mississippi	661	3	0	4	20	100	153	133	81	126	28	13
Missouri	1,393	4	4	5	20	112	157	211	252	408	203	17
Montana	271	2	0	2	3	7	13	45	61	113	16	9
Nebraska	532	2	0	0	0	4	26	61	115	213	91	20

Table 27 - Continued
Distribution of Census Tracts by Ratio of Residential Fixed Connections to Tract Households by State as of December 31, 2011
(Connections over 200 kbps in at least one direction)

State	Tracts	Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Tract Households										
		Zero	Greater than 0 and no more than 5%	Greater than 5 and no more than 10%	Greater than 10 and no more than 20%	Greater than 20 and no more than 30%	Greater than 30 and no more than 40%	Greater than 40 and no more than 50%	Greater than 50 and no more than 60%	Greater than 60 and no more than 80%	Greater than 80 and no more than 100%	100% or more
Nevada	683	5	0	3	9	27	47	85	88	259	140	20
New Hampshire	294	2	0	1	0	0	1	6	23	127	122	12
New Jersey	2,004	8	2	1	6	16	48	89	174	608	821	231
New Mexico	499	6	10	6	16	24	58	81	88	151	45	14
New York	4,900	63	5	11	24	87	142	274	627	1,974	1,426	267
North Carolina	2,183	13	3	1	14	57	150	304	371	715	419	136
North Dakota	205	0	0	0	0	2	9	18	43	102	24	7
Northern Mariana Isl	22	3	0	1	1	4	0	0	3	0	0	10
Ohio	2,946	6	0	2	12	83	215	349	500	1,190	553	36
Oklahoma	1,046	1	9	11	39	80	135	187	162	262	137	23
Oregon	827	2	0	1	4	6	27	75	161	375	157	19
Pennsylvania	3,217	18	16	13	40	86	186	259	410	1,263	649	277
Puerto Rico	903	15	2	25	170	176	177	114	80	48	36	60
Rhode Island	241	0	0	0	0	0	6	14	31	102	82	6
South Carolina	1,097	9	0	0	20	72	144	185	167	334	115	51
South Dakota	222	1	0	0	1	3	11	17	61	101	22	5
Tennessee	1,497	12	3	4	34	116	187	287	281	411	135	27
Texas	5,253	28	17	34	169	363	683	765	715	1,380	804	295
Utah	588	4	2	2	10	6	9	40	83	274	128	30
Vermont	184	1	0	0	0	0	1	4	25	101	41	11
Virgin Islands	29	0	0	1	4	4	3	4	3	1	5	4
Virginia	1,895	21	23	34	72	129	215	241	196	337	233	394
Washington	1,446	1	0	2	14	22	57	105	195	610	369	71
West Virginia	484	0	5	10	21	19	49	63	96	172	30	19
Wisconsin	1,393	3	3	0	9	32	80	133	252	638	229	14
Wyoming	132	1	0	0	1	5	8	17	26	58	13	3
Total	73,767	453	173	243	1,199	2,958	5,495	8,085	10,666	24,689	15,356	4,450

Note: Figures may not sum to totals due to rounding. See Technical Notes at the end of the report.
Sources: FCC Form 477, Part VI (Connections); Geolytics 2011 Block-Level Estimates (Households for U.S. and District of Columbia); Census 2000 (Households for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Map 1
Residential Fixed Connections over 200 kbps in at Least One Direction per 1,000 Households
by Census Tract as of December 31, 2011



Symbology

Connections per 1000 Households

Zero
200 < x <= 400
400 < x <= 600
600 < x <= 800
800 < x

This map shows the number of residential connections per 1,000 households by census tract. Connections have information transfer rates greater than 200 kbps in at least one direction and include all technologies except terrestrial mobile wireless.

Connections data are from FCC Form 477 Part VI. The census tract boundaries are from TIGER. Household counts for tracts in the U.S. are 2011 estimates from Geolytics. Household counts for the territories are from Census 2000. For more information about census tracts please see Census 2010 Summary File 1 Technical Documentation, page A-12.

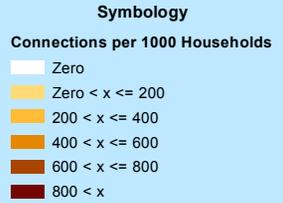
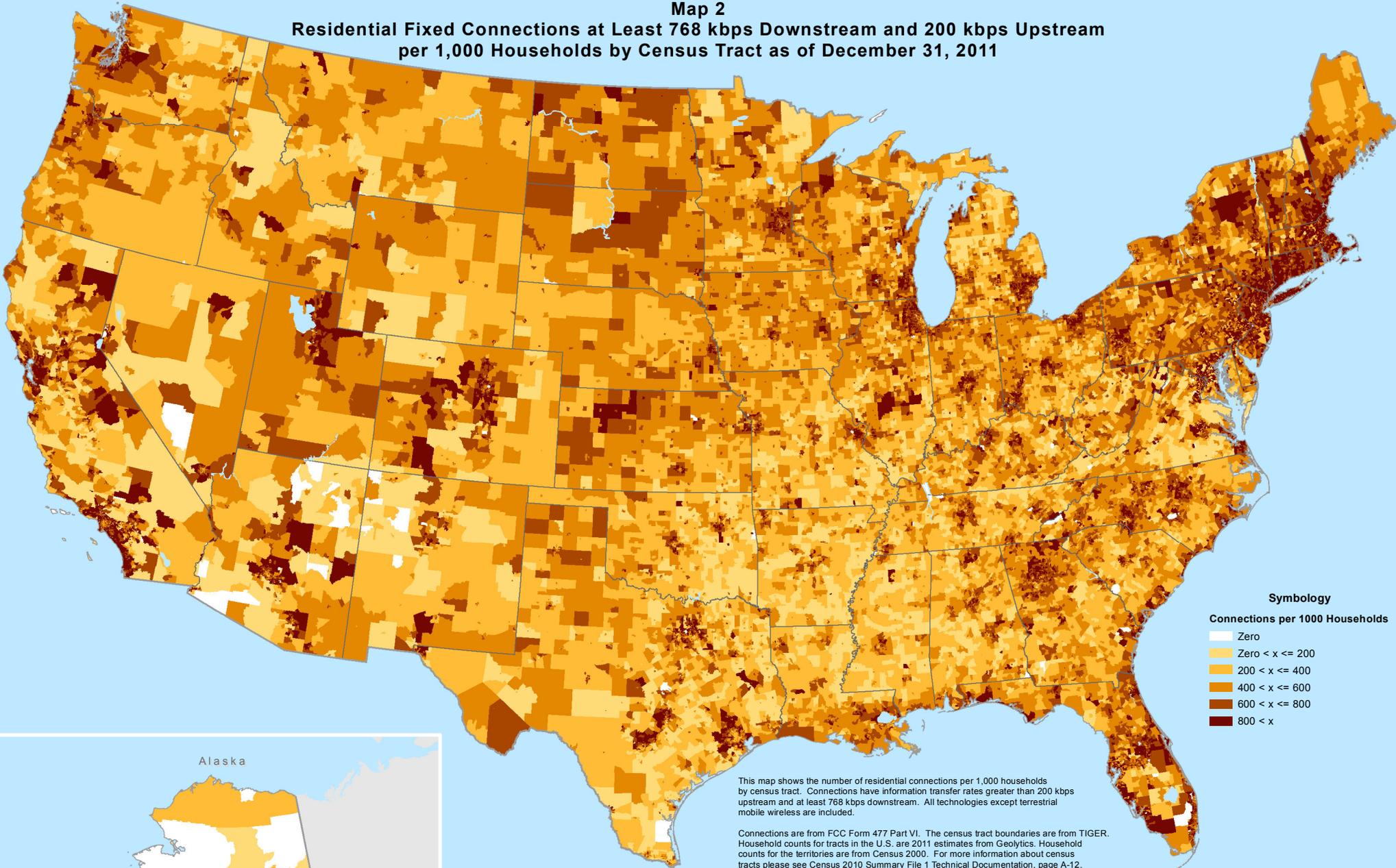
Alaska

U.S. Federal Communications Commission

Puerto Rico

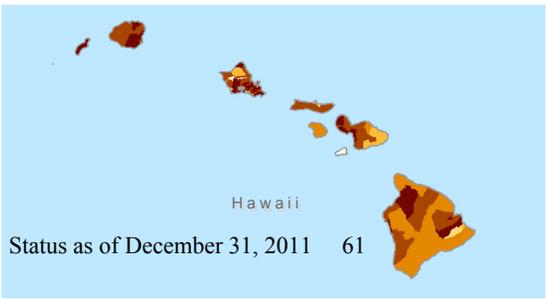
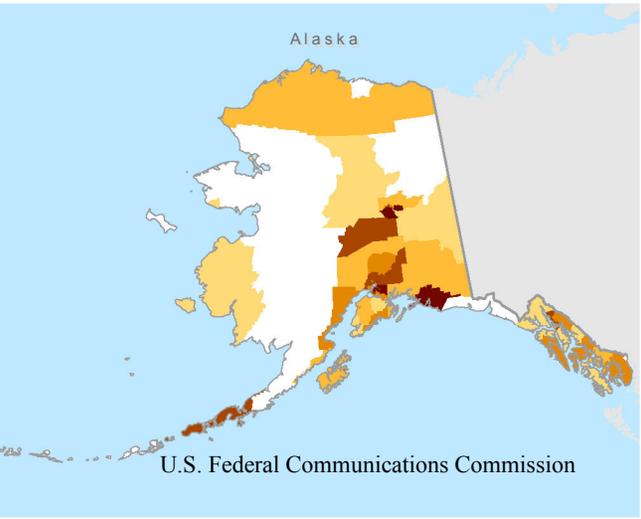
Hawaii

Map 2
Residential Fixed Connections at Least 768 kbps Downstream and 200 kbps Upstream
per 1,000 Households by Census Tract as of December 31, 2011

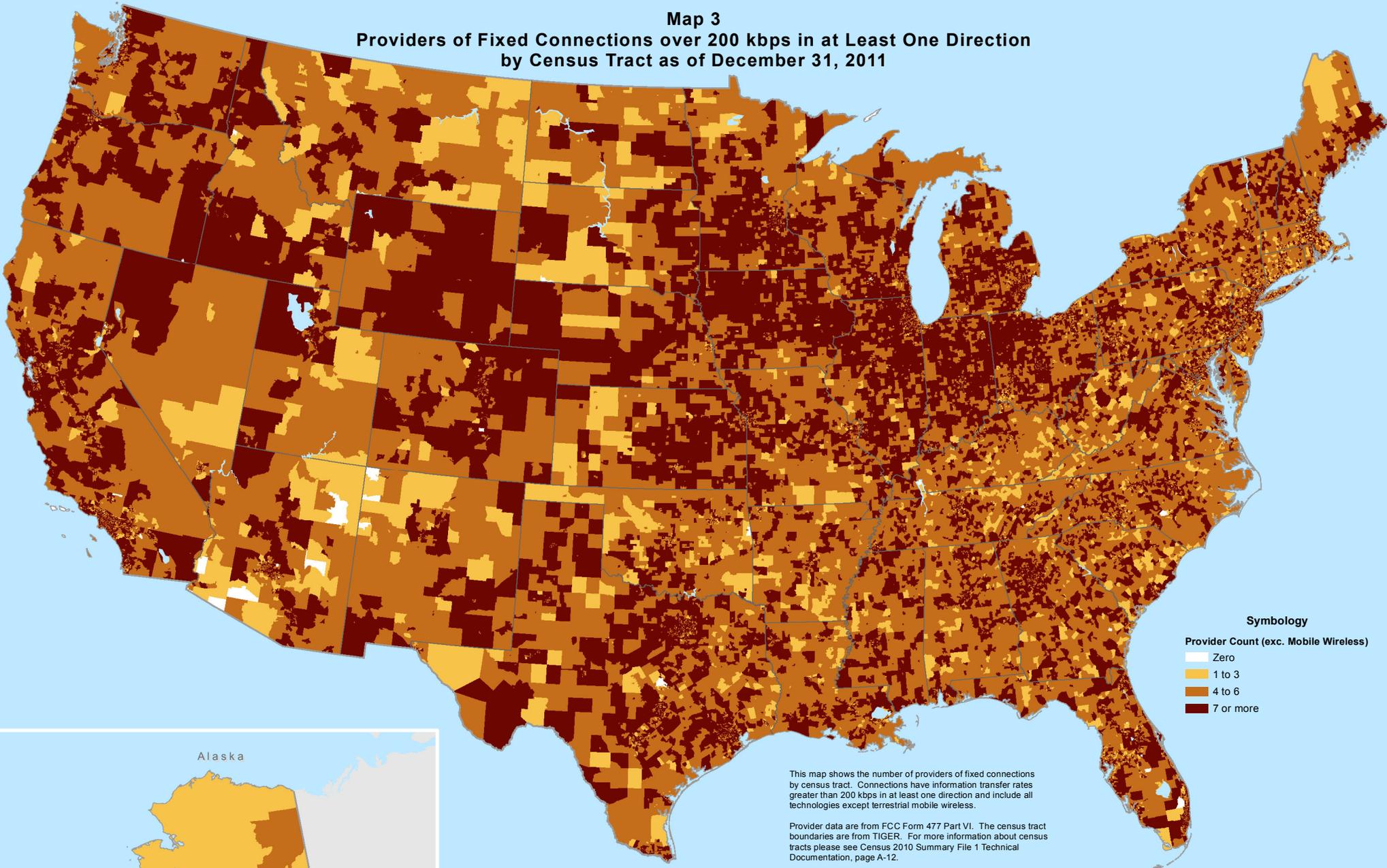


This map shows the number of residential connections per 1,000 households by census tract. Connections have information transfer rates greater than 200 kbps upstream and at least 768 kbps downstream. All technologies except terrestrial mobile wireless are included.

Connections are from FCC Form 477 Part VI. The census tract boundaries are from TIGER. Household counts for tracts in the U.S. are 2011 estimates from Geolytics. Household counts for the territories are from Census 2000. For more information about census tracts please see Census 2010 Summary File 1 Technical Documentation, page A-12.



Map 3
Providers of Fixed Connections over 200 kbps in at Least One Direction
by Census Tract as of December 31, 2011



Symbology

Provider Count (exc. Mobile Wireless)

- Zero
- 1 to 3
- 4 to 6
- 7 or more

This map shows the number of providers of fixed connections by census tract. Connections have information transfer rates greater than 200 kbps in at least one direction and include all technologies except terrestrial mobile wireless.

Provider data are from FCC Form 477 Part VI. The census tract boundaries are from TIGER. For more information about census tracts please see Census 2010 Summary File 1 Technical Documentation, page A-12.

Alaska



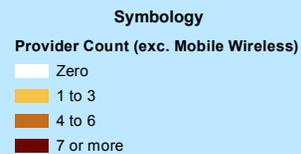
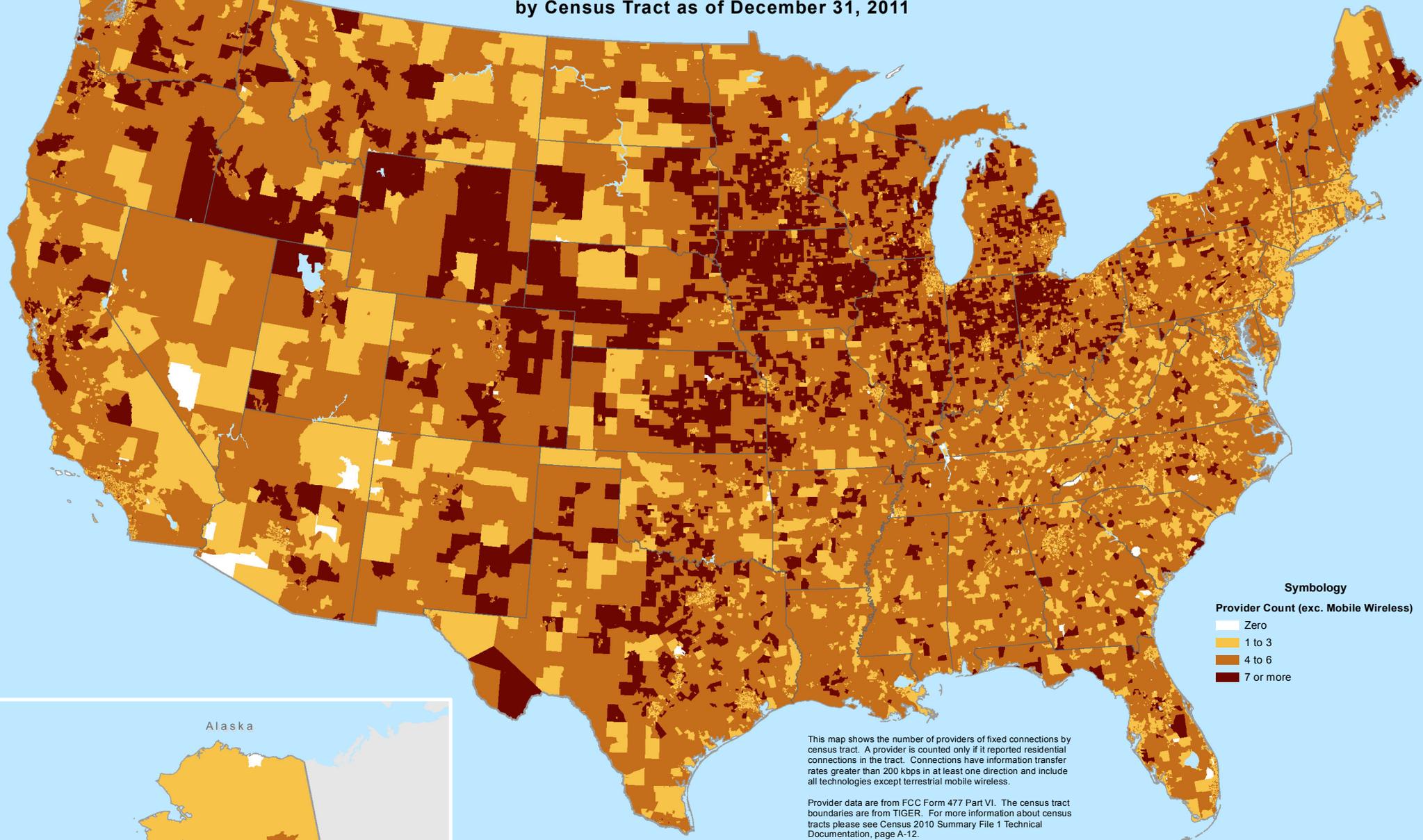
Puerto Rico



Hawaii



Map 4
Providers of Residential Fixed Connections over 200 kbps in at Least One Direction
by Census Tract as of December 31, 2011



This map shows the number of providers of fixed connections by census tract. A provider is counted only if it reported residential connections in the tract. Connections have information transfer rates greater than 200 kbps in at least one direction and include all technologies except terrestrial mobile wireless.

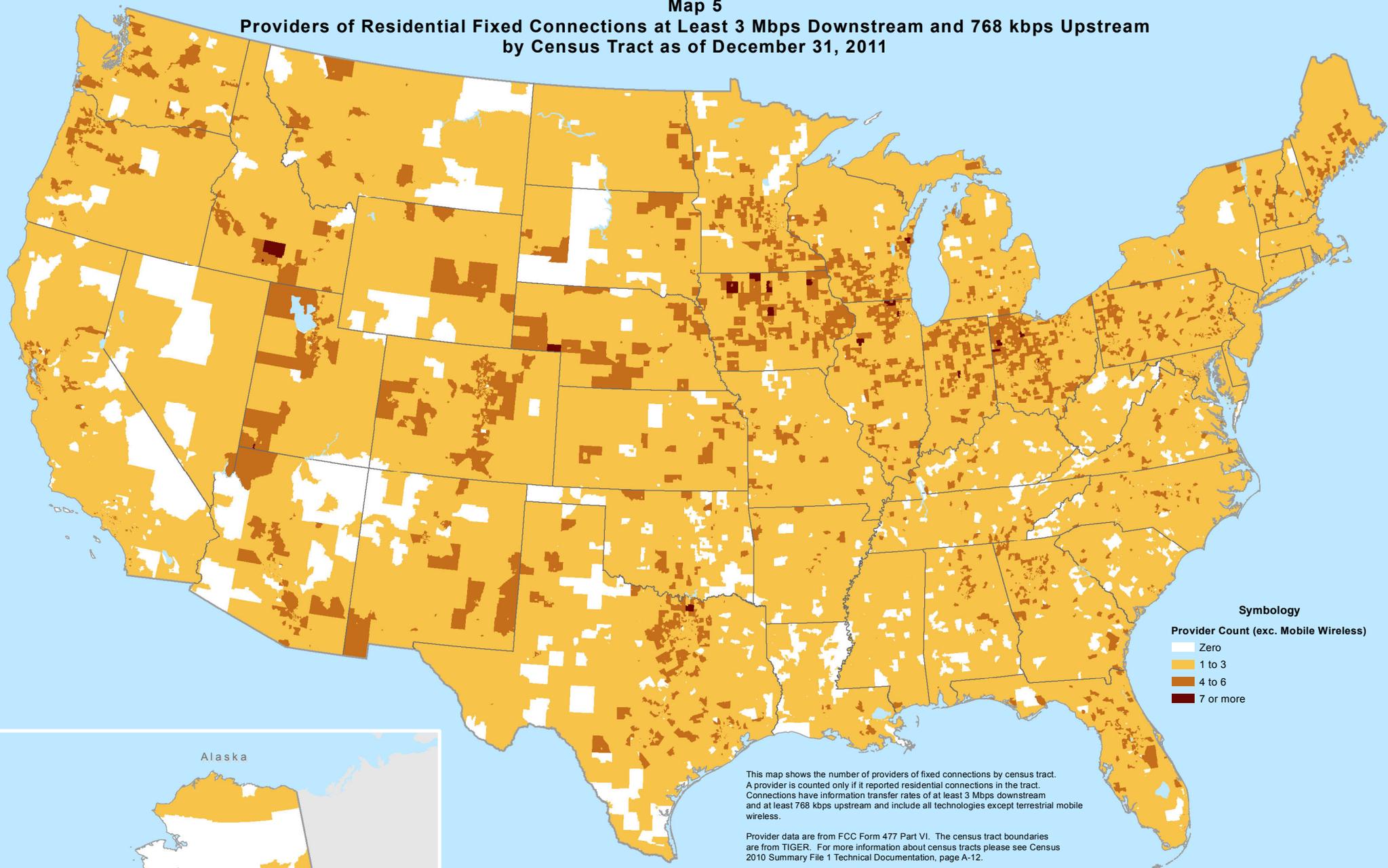
Provider data are from FCC Form 477 Part VI. The census tract boundaries are from TIGER. For more information about census tracts please see Census 2010 Summary File 1 Technical Documentation, page A-12.

Alaska

Puerto Rico

Hawaii

Map 5
Providers of Residential Fixed Connections at Least 3 Mbps Downstream and 768 kbps Upstream
by Census Tract as of December 31, 2011



Symbology
Provider Count (exc. Mobile Wireless)

- Zero
- 1 to 3
- 4 to 6
- 7 or more

This map shows the number of providers of fixed connections by census tract. A provider is counted only if it reported residential connections in the tract. Connections have information transfer rates of at least 3 Mbps downstream and at least 768 kbps upstream and include all technologies except terrestrial mobile wireless.

Provider data are from FCC Form 477 Part VI. The census tract boundaries are from TIGER. For more information about census tracts please see Census 2010 Summary File 1 Technical Documentation, page A-12.

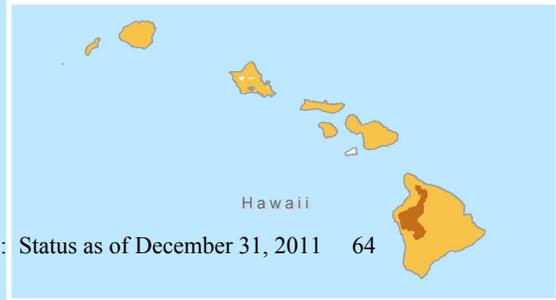
Alaska



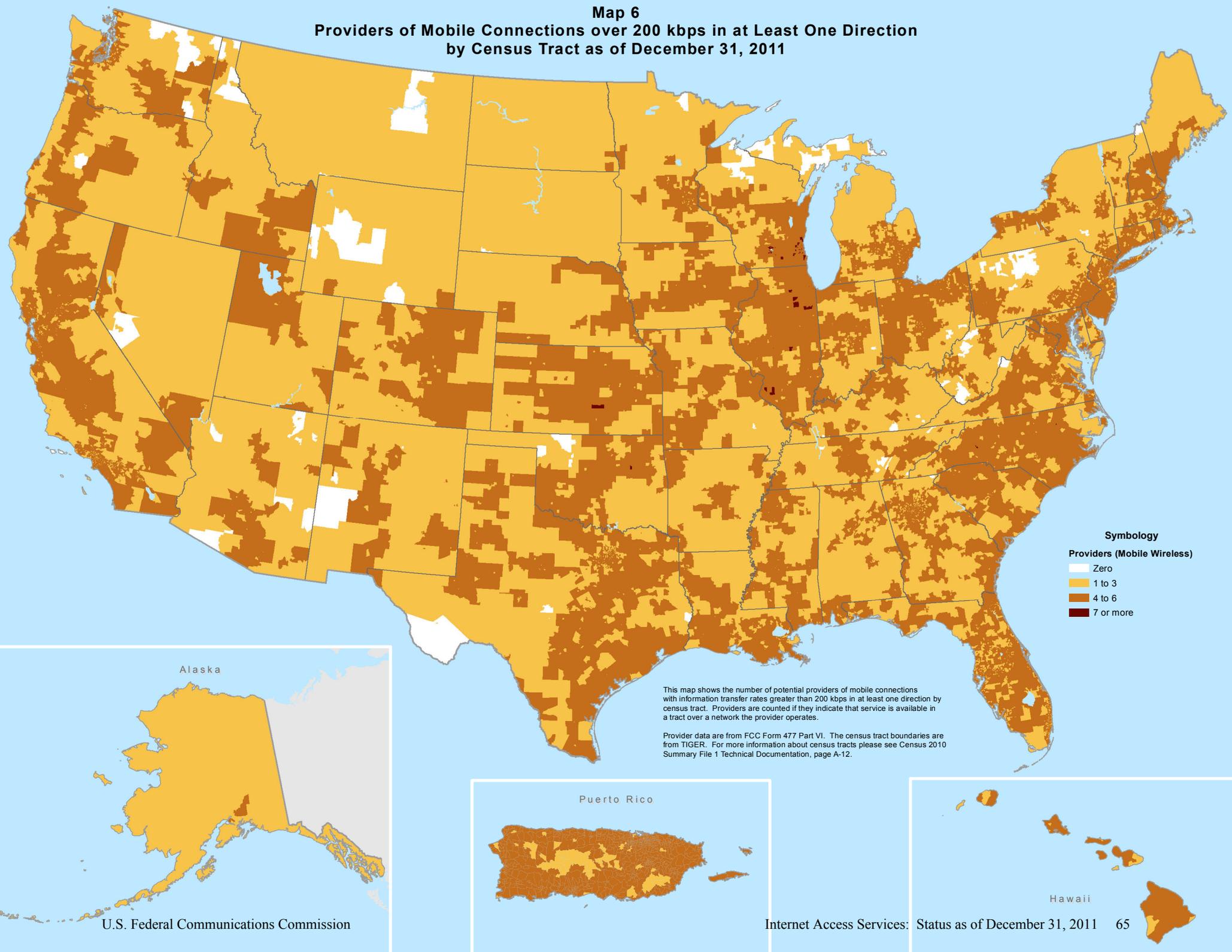
Puerto Rico



Hawaii



Map 6
Providers of Mobile Connections over 200 kbps in at Least One Direction
by Census Tract as of December 31, 2011



Symbology
Providers (Mobile Wireless)
 Zero
 1 to 3
 4 to 6
 7 or more

This map shows the number of potential providers of mobile connections with information transfer rates greater than 200 kbps in at least one direction by census tract. Providers are counted if they indicate that service is available in a tract over a network the provider operates.

Provider data are from FCC Form 477 Part VI. The census tract boundaries are from TIGER. For more information about census tracts please see Census 2010 Summary File 1 Technical Documentation, page A-12.

Alaska

Puerto Rico

Hawaii

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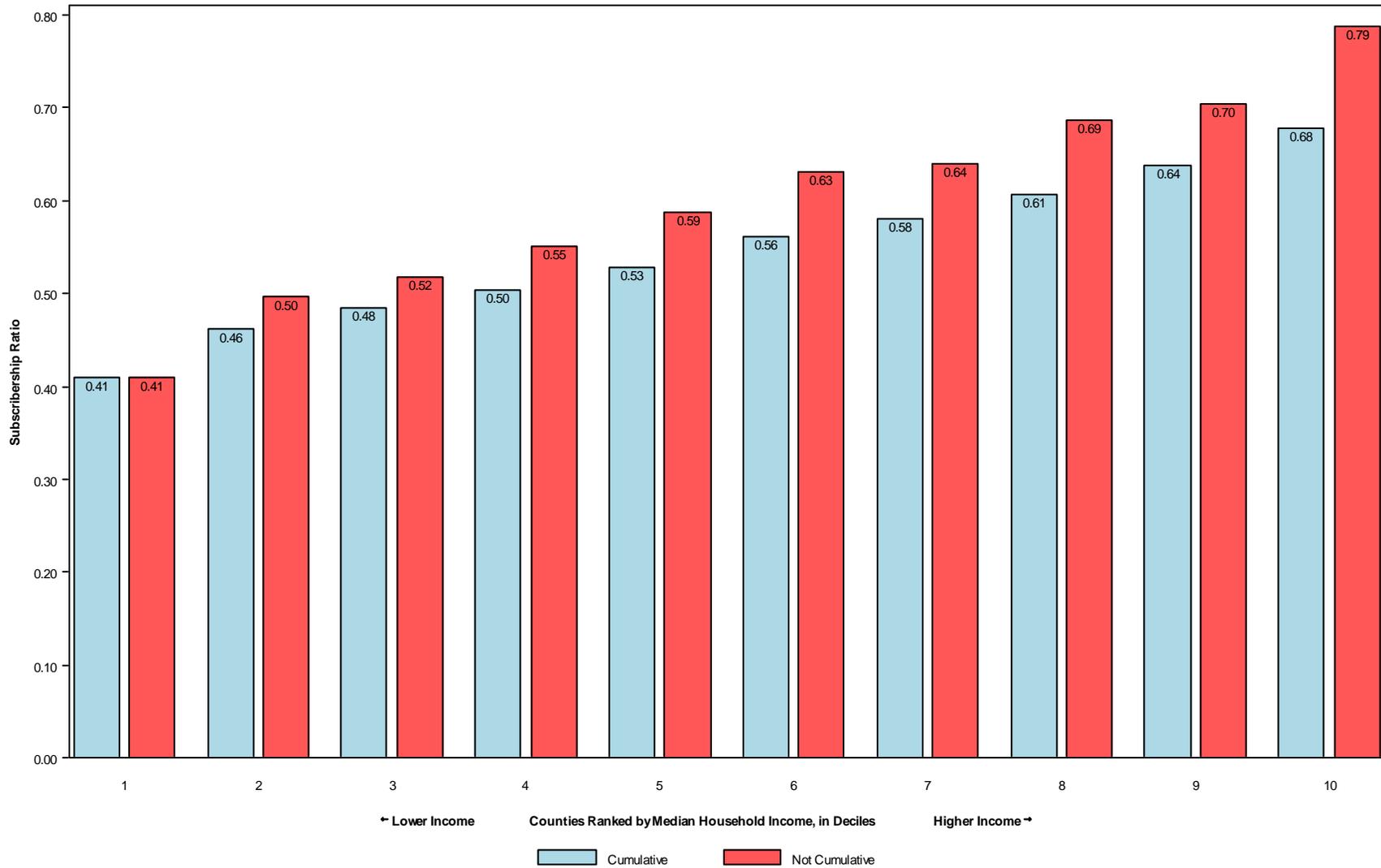
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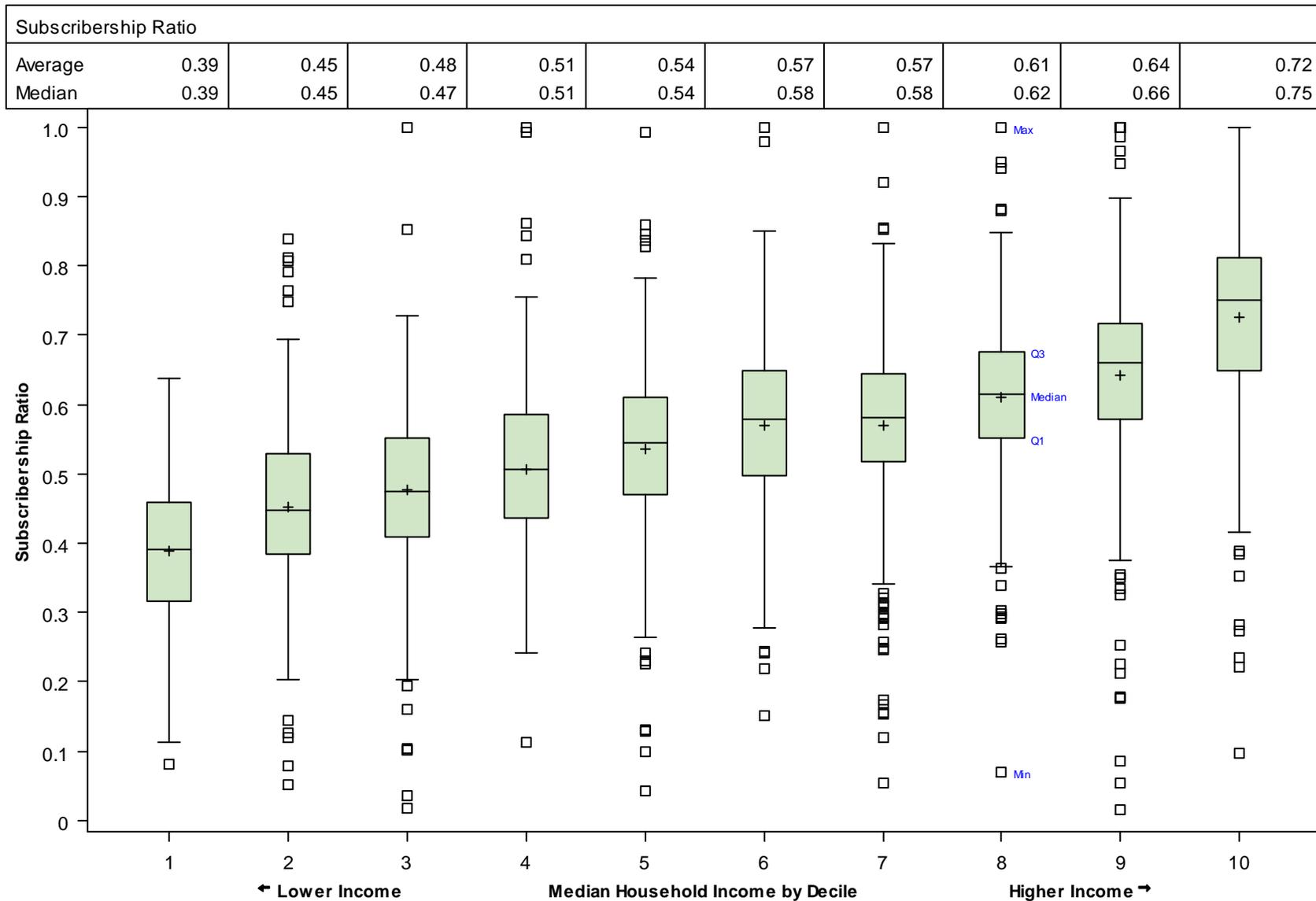
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Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Households
by Income Deciles as of December 31, 2011
(County Data)



This chart shows cumulative and non-cumulative subscribership ratios by income deciles. Counties were grouped into income deciles based on county median household income in 2009, as reported by the Census Bureau. For each decile, the height of any red, non-cumulative bar represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across counties in the decile to the sum of households across counties in the decile. The height of the blue, cumulative bar for decile N represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across all counties in decile N and all deciles less than N to the number of households in all the counties in decile N and deciles less than N.

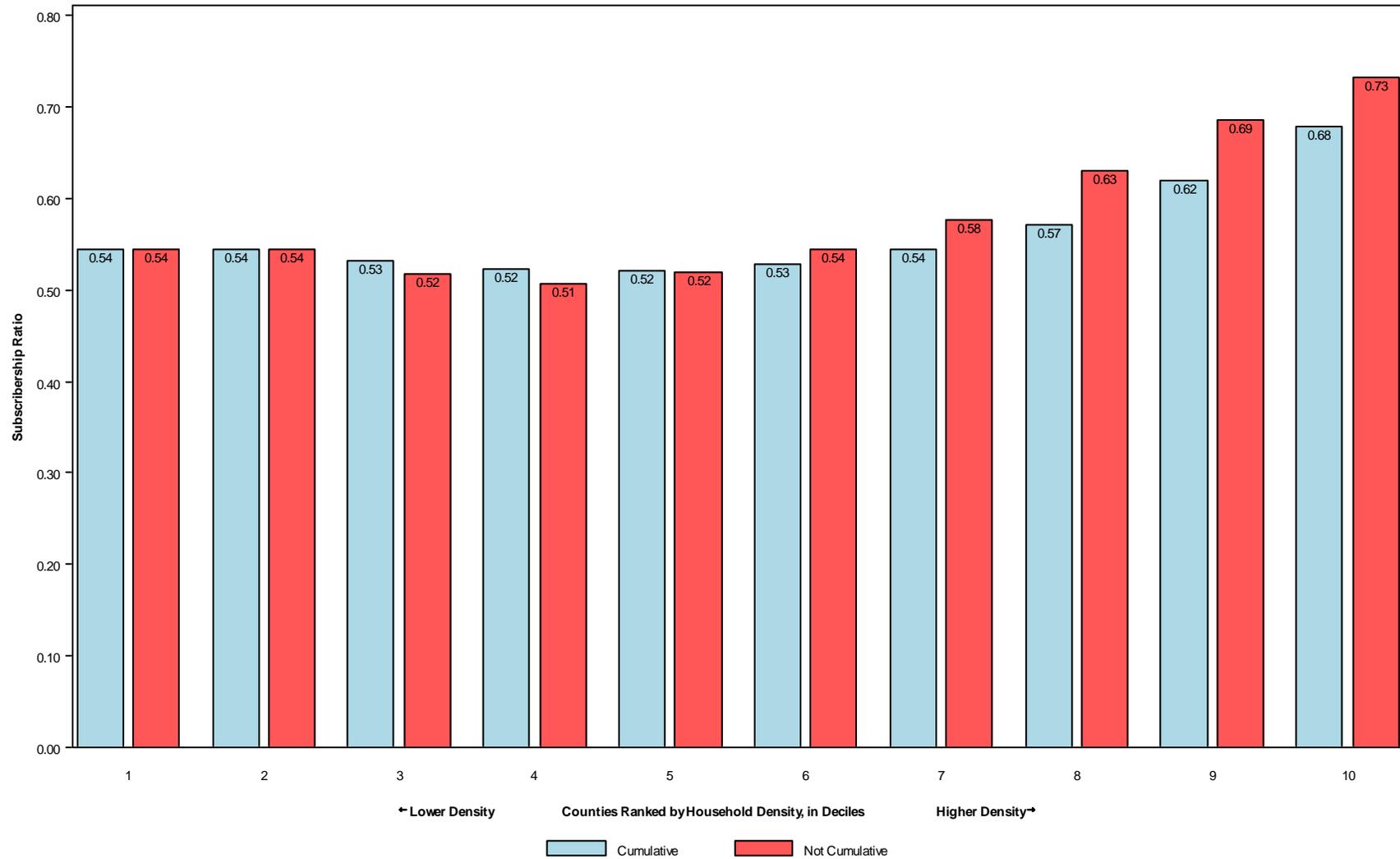
Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (Median household income).

Chart 18
Subscribership Ratio Distributions by Income Deciles as of December 31, 2011



Note: Each box plot shows the distribution of residential subscribership to connections over 200 kbps in at least one direction for counties in the income decile. Some of the features are labeled, but note also that + denotes the position of the average residential subscribership ratio taken across all counties in the decile; L is the minimum observation above $Q1-1.5(Q3-Q1)$; T is the maximum observation below $Q3+1.5(Q3-Q1)$; and \square is any data point beyond $Q1-1.5(Q3-Q1)$ or $Q3+1.5(Q3-Q1)$. Ratios greater than 1 were set to 1.
 Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (Median household income).

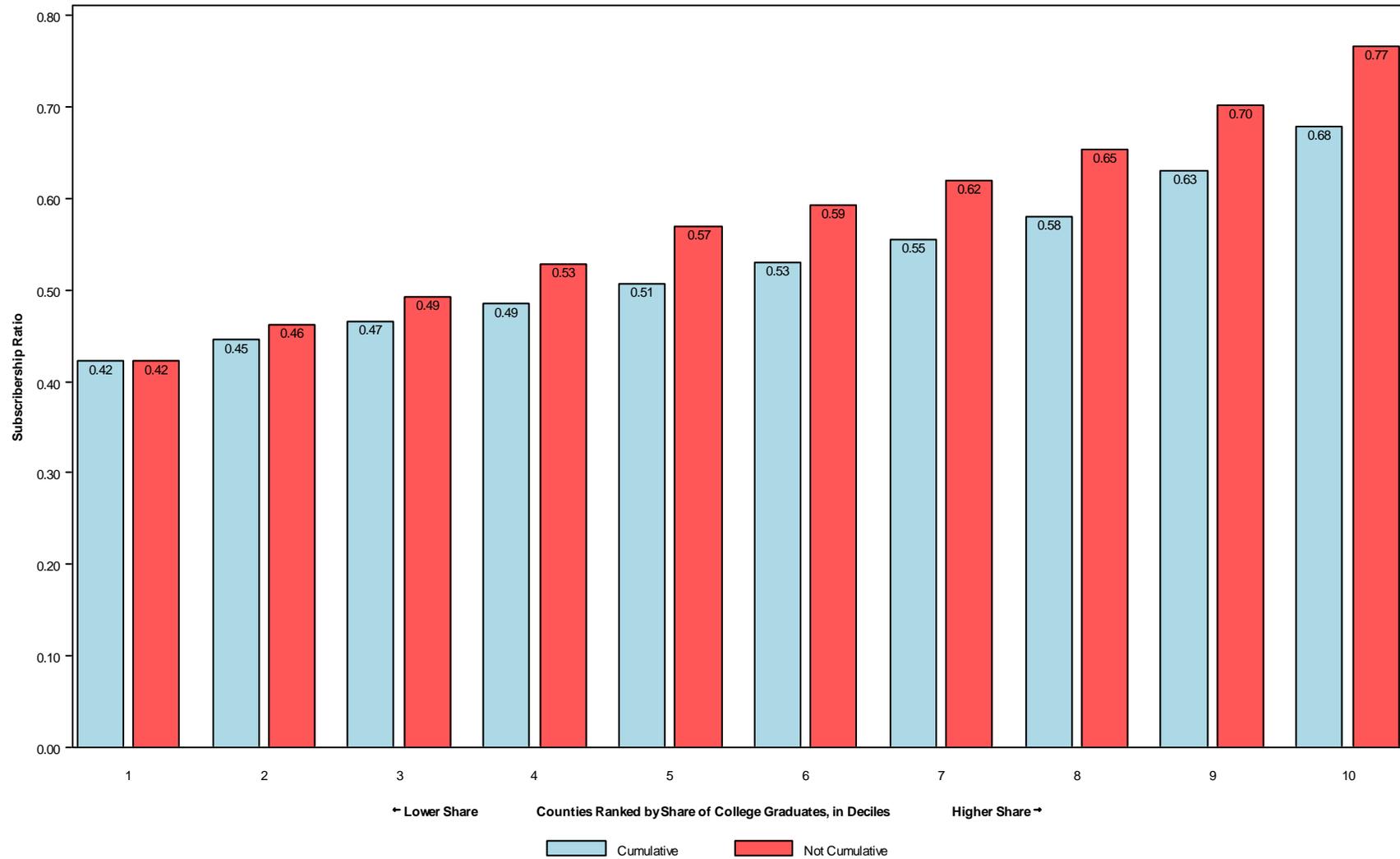
Chart 19
Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Households
by Density Deciles as of December 31, 2011
(County Data)



This chart shows cumulative and non-cumulative subscribership ratios by density deciles. Counties were grouped into density deciles based on households per square mile, calculated as the ratio of estimated county households in 2010 to county land area from the Census Bureau. For each decile, the height of any red, non-cumulative bar represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across counties in the decile to the sum of households across counties in the decile. The height of the blue, cumulative bar for decile N represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across all counties in decile N and all deciles less than N to the number of households in all the counties in decile N and deciles less than N.

Sources: FCC Form 477, Part VI: Geolitics 2011 Block-Level Estimates (Households in 2011); and Census 2010 (County land area).

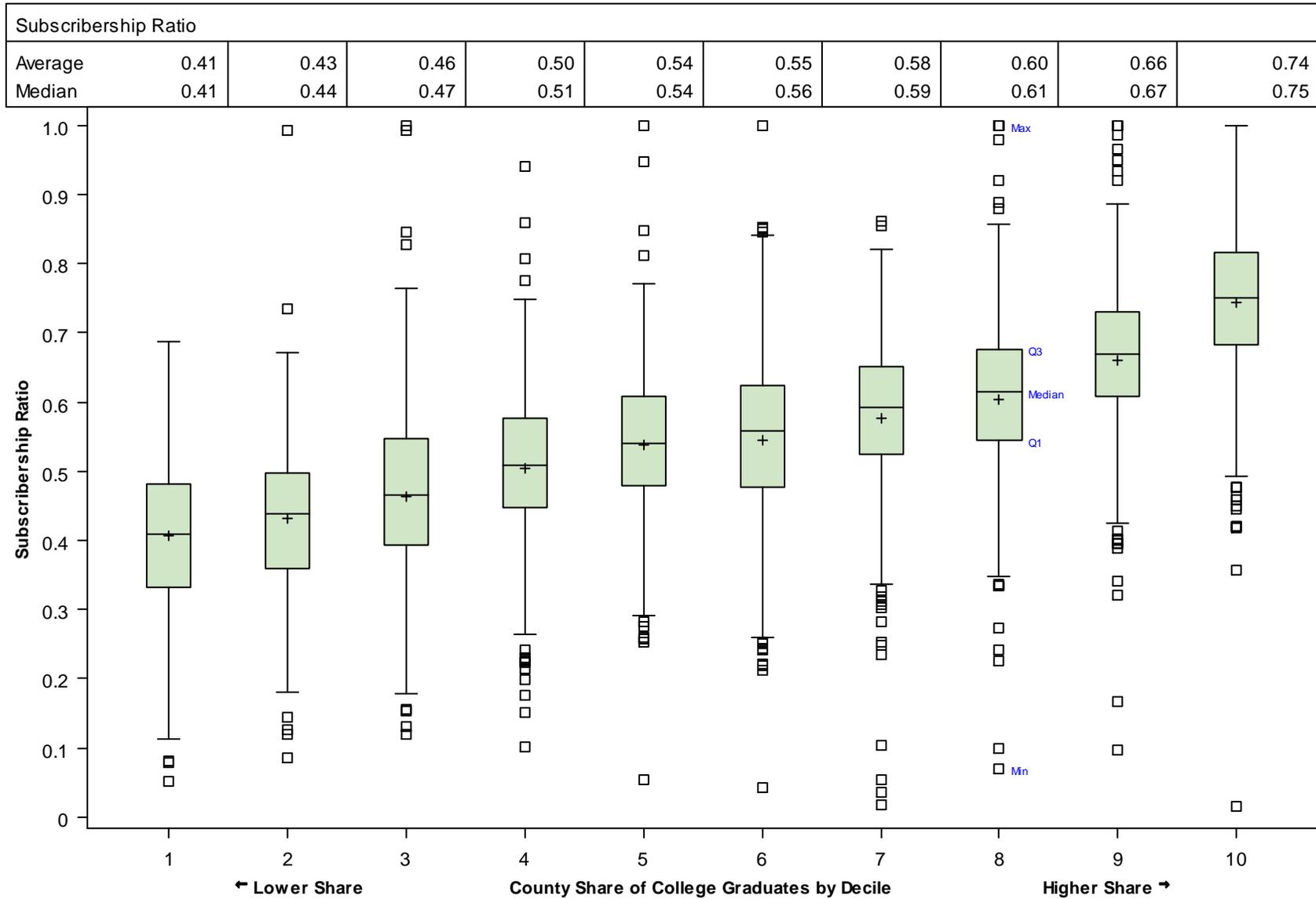
Chart 21
Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Households
by Share of College Graduates in Deciles as of December 31, 2011
(County Data)



This chart shows cumulative and non-cumulative subscribership ratios by county share of college graduates in deciles. Counties were grouped into deciles based on the share of the county population at least 25 years of age with a college degree or higher educational attainment. For each decile, the height of any red, non-cumulative bar represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across counties in the decile to the sum of households across counties in the decile. The height of the blue, cumulative bar for decile N represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across all counties in decile N and all deciles less than N, to the number of households in all the counties in decile N and deciles less than N.

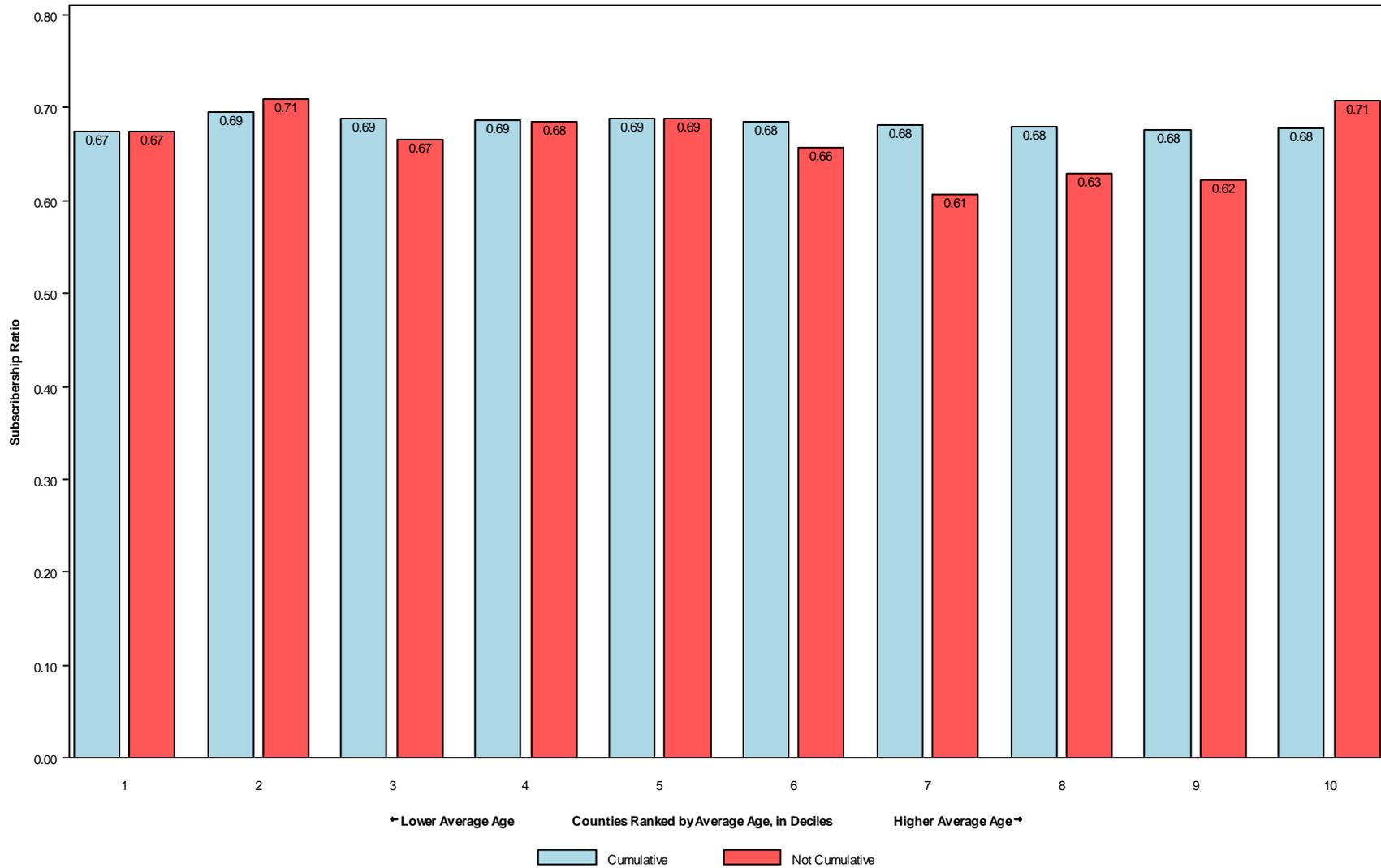
Sources: FCC Form 477, Part VI: Geolitics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (County educational attainment).

Chart 22
Subscribership Ratio Distributions by Share of Population with a College Degree (in Deciles) as of December 31, 2011



Note: Each box plot shows the distribution of residential subscribership to connections over 200 kbps in at least one direction for counties in the share decile. Some of the features are labeled, but note also that + denotes the position of the average residential subscribership ratio taken across all counties in the decile; L is the minimum observation above $Q1-1.5(Q3-Q1)$; T is the maximum observation below $Q3+1.5(Q3-Q1)$; and □ is a data point beyond $Q1-1.5(Q3-Q1)$ or $Q3+1.5(Q3-Q1)$. Ratios greater than 1 were set to 1.
 Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (County educational attainment).

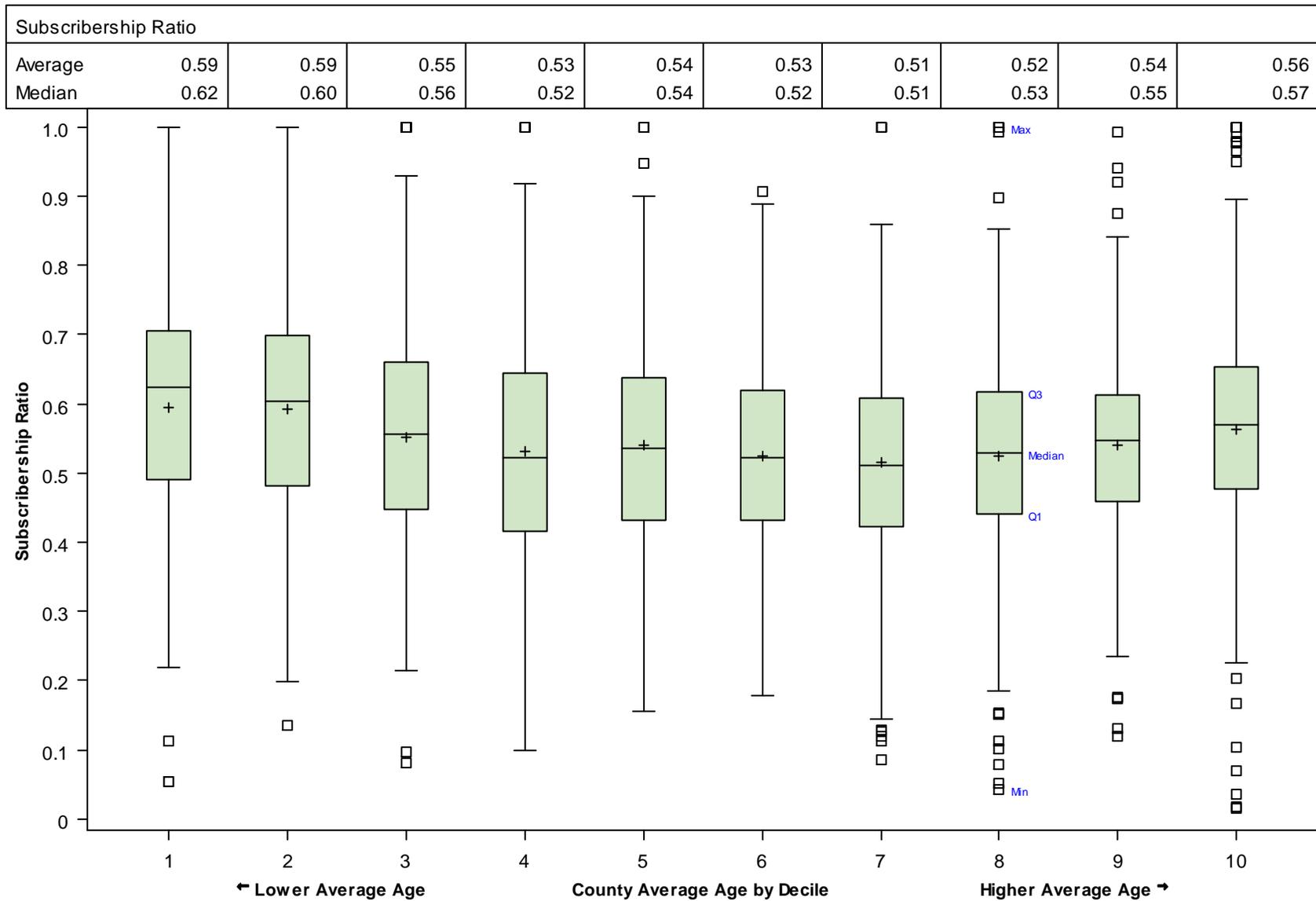
Chart 23
Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Households
by Average Age in Deciles as of December 31, 2011
(County Data)



This chart shows cumulative and non-cumulative subscribership ratios by county average age in deciles. Counties were grouped into deciles based on the average age of the county population. For each decile, the height of any red, non-cumulative bar represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across counties in the decile to the sum of households across counties in the decile. The height of the blue, cumulative bar for decile N represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across all counties in decile N and all deciles less than N, to the number of households in all the counties in decile N and deciles less than N.

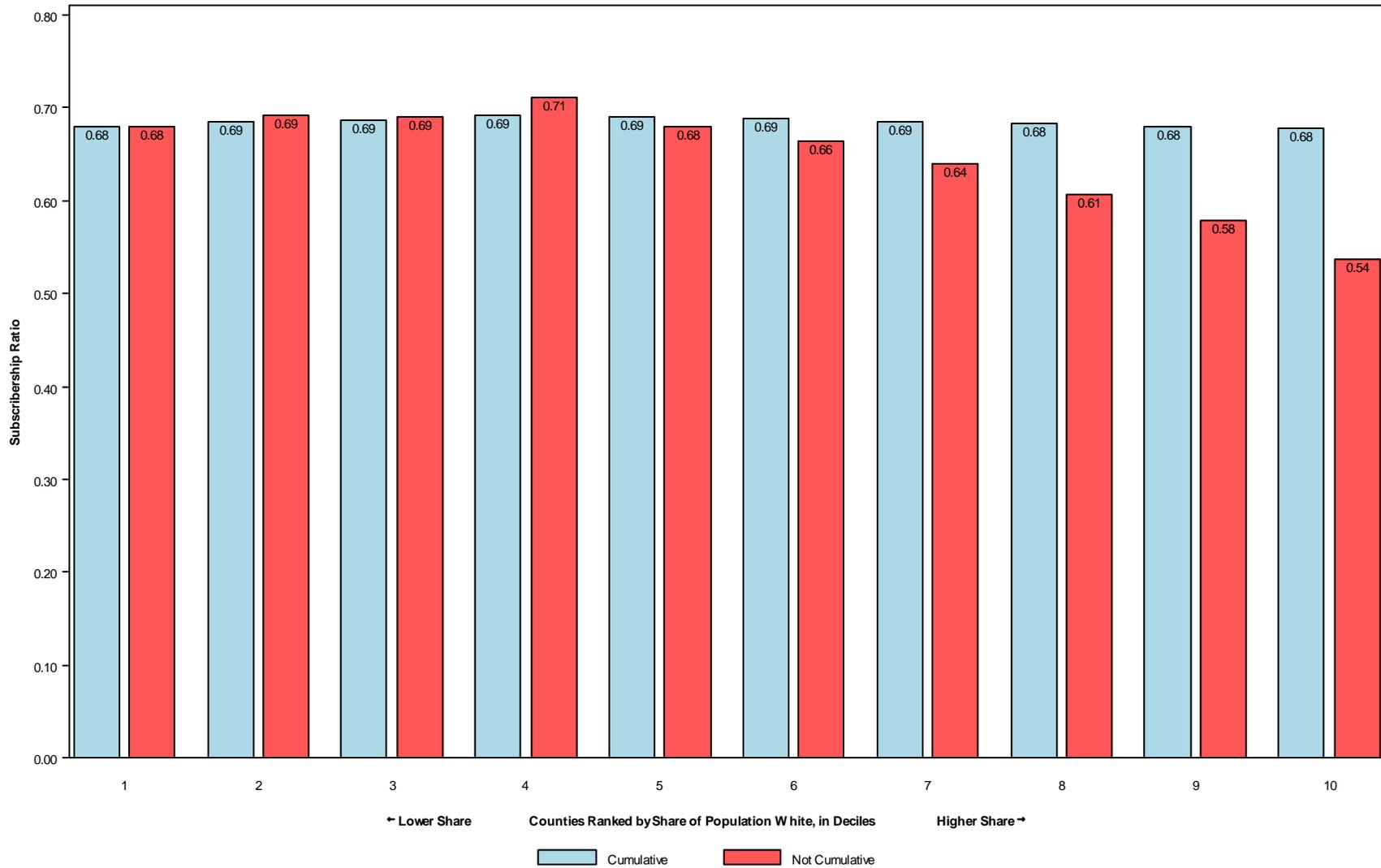
Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (County average age).

Chart 24
Subscribership Ratio Distributions by Average Age of County Population (in Deciles) as of December 31, 2011



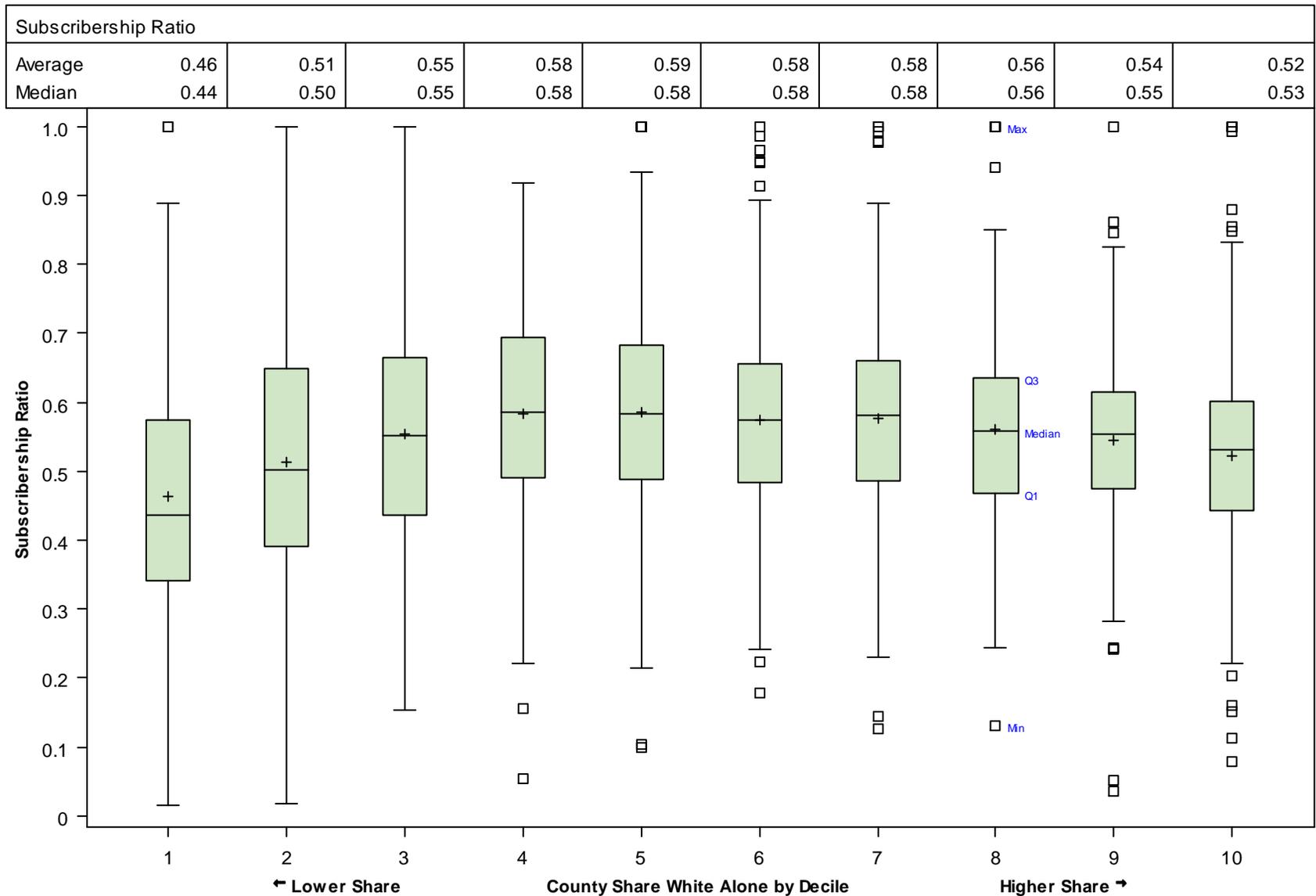
Note: Each box plot shows the distribution of residential subscribership to connections over 200 kbps in at least one direction for counties in the average age decile. Some of the features are labeled, but note also that + denotes the position of the average residential subscribership ratio taken across all counties in the decile; L is the minimum observation above $Q1-1.5(Q3-Q1)$; T is the maximum observation below $Q3+1.5(Q3-Q1)$; and □ is a data point beyond $Q1-1.5(Q3-Q1)$ or $Q3+1.5(Q3-Q1)$. Ratios greater than 1 were set to 1.
 Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (County average age).

Chart 25
Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Households
by Share White Alone in Deciles as of December 31, 2011
(County Data)



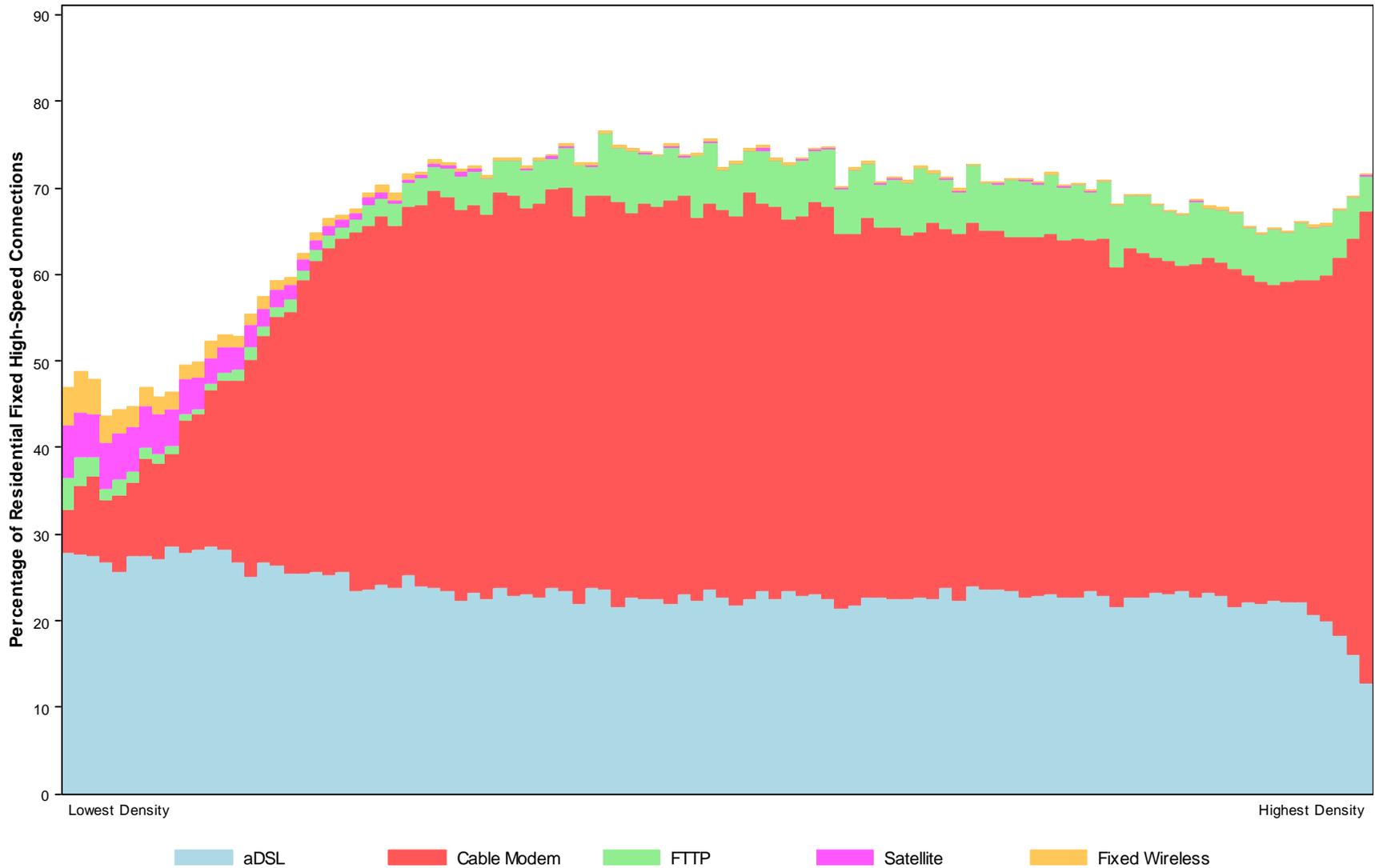
This chart shows cumulative and non-cumulative subscribership ratios by the share of county population white alone in deciles. Counties were grouped into deciles based on the share of the county population that reported their race as white alone. For each decile, the height of any red, non-cumulative bar represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across counties in the decile to the sum of households across counties in the decile. The height of the blue, cumulative bar for decile N represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across all counties in decile N and all deciles less than N, to the number of households in all the counties in decile N and deciles less than N. Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (Race).

Chart 26
Subscriberhip Ratio Distributions by Share White Alone (in Deciles) as of December 31, 2011



Note: Each box plot shows the distribution of residential subscribership to connections over 200 kbps in at least one direction for counties in each race decile. Counties were grouped into deciles based on the share of the county population that reported their race as white alone. Some of the features are labeled, but note also that + denotes the position of the average residential subscribership ratio taken across all counties in the decile; \perp is the minimum observation above $Q1-1.5(Q3-Q1)$; \top is the maximum observation below $Q3+1.5(Q3-Q1)$; and \square is a data point beyond $Q1-1.5(Q3-Q1)$ or $Q3+1.5(Q3-Q1)$. Ratios greater than 1 were set to 1.
 Sources: FCC Form 477, Part VI: Geolytics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (Race).

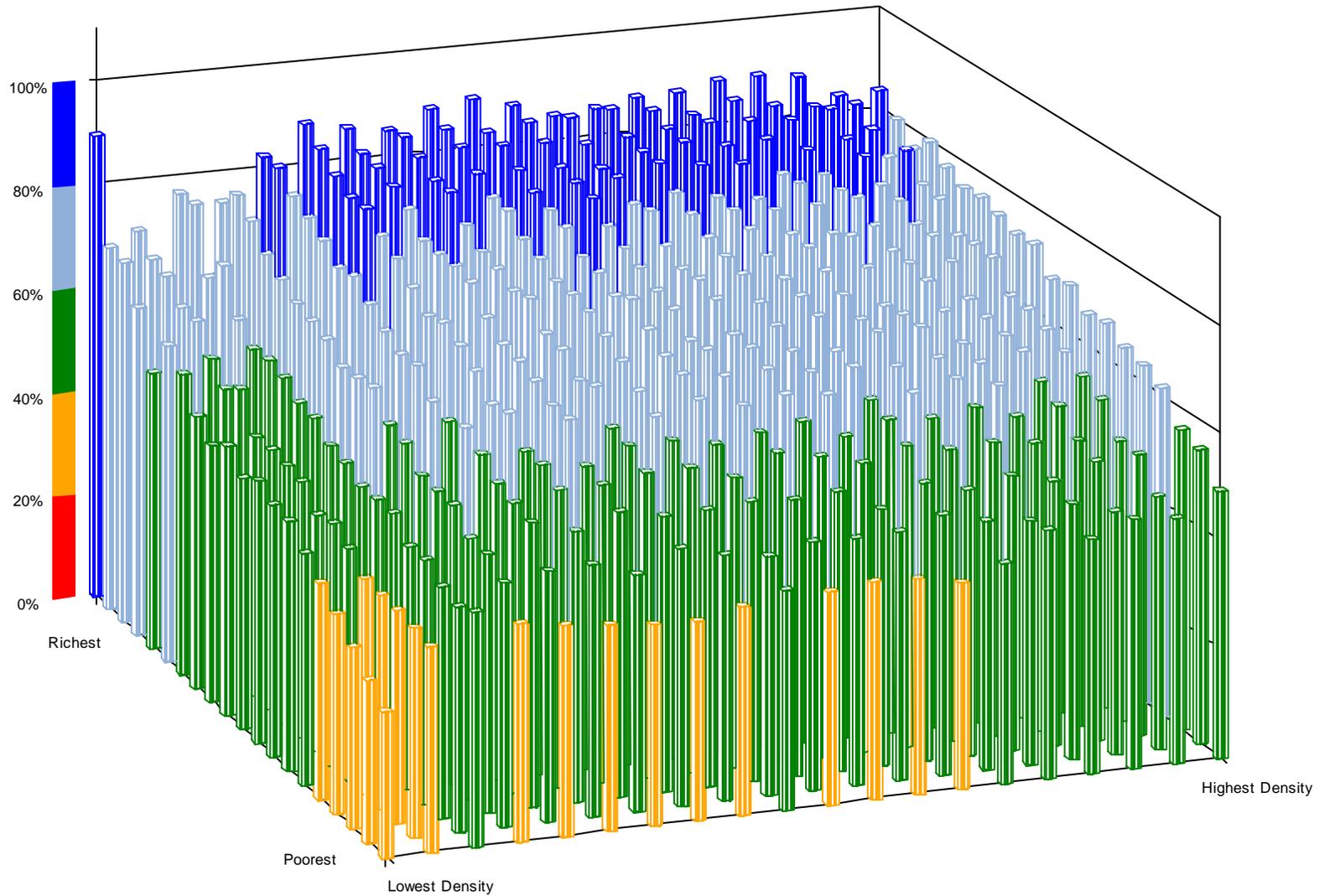
Chart 27
Subscribership Ratios by Technology and Tract Household Density as of December 31, 2011
 (Residential fixed connections over 200 kbps in at least one direction)



This chart shows subscribership ratios by technology and household density. Tracts were grouped into 100 density percentiles based on households per square mile, calculated as the ratio of estimated tract households in 2011 to tract land area from the Census Bureau. For each percentile, the height of the bar represents the household-weighted average ratio of residential fixed connections to households across tracts in the percentile.

Sources: FCC Form 477, Part VI: Geolitics 2011 Block-Level Estimates (Households in 2011); and Census 2010 (Tract land area).

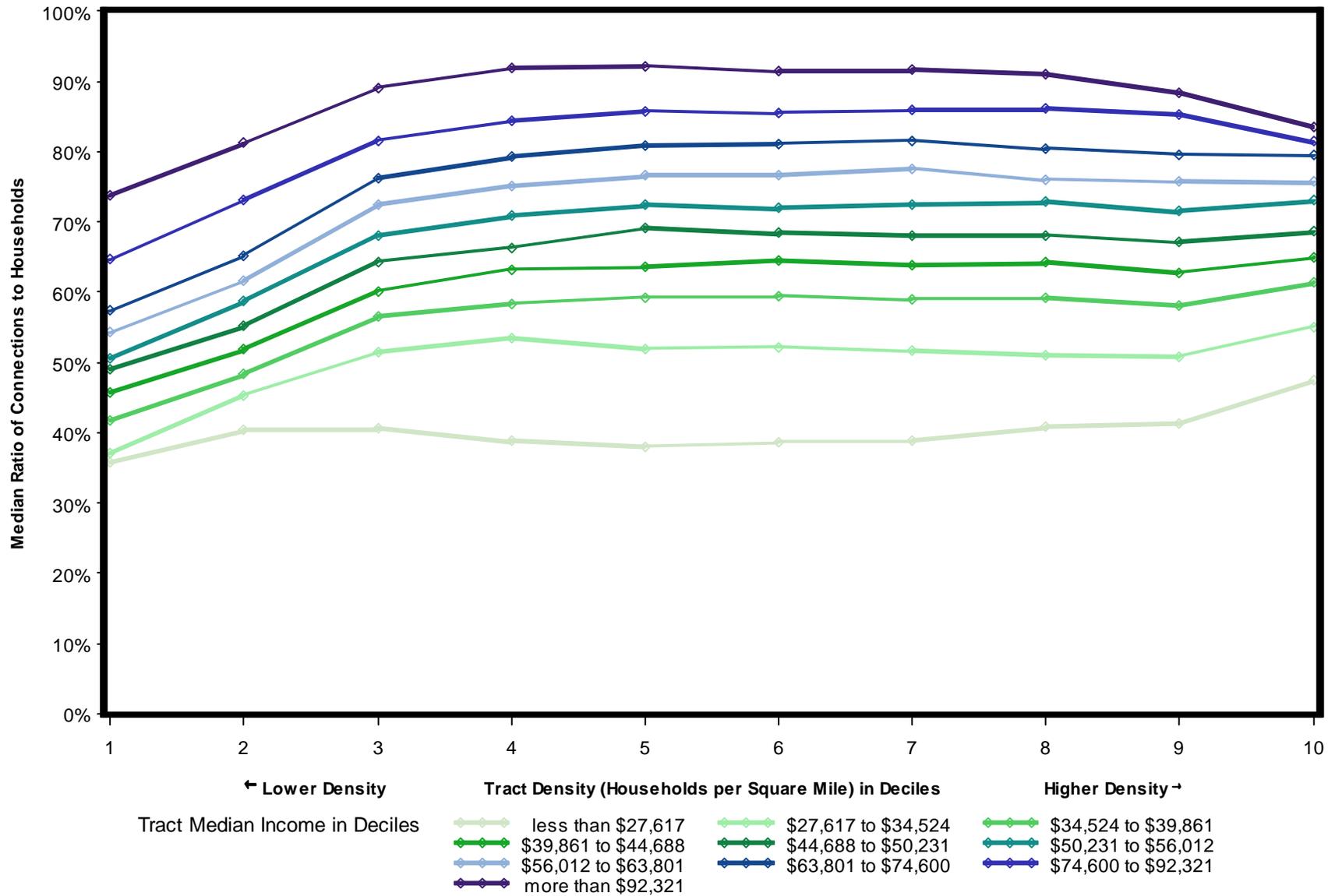
Chart 28
Average Subscriberhip Ratios by Income and Household Density as of December 31, 2011
(Residential fixed connections over 200 kbps in at least one direction by Tract)



This chart shows subscriberhip ratios by household density and income quantiles. Tracts were grouped into 400 density/income quantiles based on households per square mile, calculated as the ratio of estimated tract households in 2011 to tract land area from the Census Bureau, and median household income. For each quantile, the height of the bar represents the household-weighted average ratio of residential fixed connections to households across tracts in the decile.

Sources: FCC Form 477, Part VI: Geolitics 2011 Block-Level Estimates (Households in 2011); Census 2010 (Tract land area); 2007-2011 ACS 5-year Estimates (Median household income).

Chart 29
Median Ratios of Residential Fixed Connections over 200 kbps in at Least One Direction to Households by Income and Density
Tract Data as of December 31, 2011



Sources: FCC Form 477, Part VI: Geolitics 2011 Block-Level Estimates (Households in 2011); and 2007-2011 ACS 5-year Estimates (Median household income).

Technical Notes

General

Detailed information about FCC Form 477 reporting requirements is available at www.fcc.gov/form477.

Wherever a number of providers is cited in this report, multiple Form 477 filers within a holding company structure count as one provider.

Form 477 collects information about Internet access connections in service to end-user locations that are advertised to deliver information to and/or from the end user – that is, in at least one direction – at transfer rates (“speeds”) above 200 kilobits per second (kbps). Information is collected about connections in 72 speed tiers (nine upstream tiers and eight downstream) defined by ranges of upstream speeds and downstream speeds. Connections are further categorized by the technology employed by the part of the connection that terminates at the end-user location.

“End users” are residential, business, institutional, or government entities who use services for their own purposes and who do not resell such services to other entities. Facilities-based providers report information about connections they provide directly to their own end-user customers and also connections that they provide to Internet Service Providers for resale to end users. For Form 477 purposes, the facilities-based provider of a connection is the entity that owns the portion of the physical facility that terminates at the end-user location, obtains an unbundled network element (UNE), special access line, or other leased facility that terminates at the end-user location and provisions/equips it as a connection that transfers information at rates over 200 kbps in at least one direction, or provisions/equips a wireless channel that transfers information at rates over 200 kbps in at least one direction to the end-user location over licensed spectrum or over spectrum that the provider uses on an unlicensed basis.

The mutually exclusive Form 477 technology categories are: asymmetric Digital Subscriber Line (“aDSL” in this report), symmetric Digital Subscriber Line (“sDSL”), other wireline, cable modem, optical fiber to the end-user premises (“FTTP”), satellite, fixed wireless (using licensed or unlicensed spectrum), mobile wireless (using licensed or unlicensed spectrum), electric power line, and all other (which is included to capture deployment of additional technologies over time). In the Form 477 data collection, aDSL-based services delivered over fiber-to-the-node architecture are reported in the aDSL category. The other wireline category comprises T1/DS1, T3/DS3, and other copper-based connections, not elsewhere categorized, that deliver *Internet access* service at the end-user location. Ethernet connections delivering Internet access service are reported in the other wireline category if the connection terminates over copper and in the FTTP category if the connection terminates over fiber. Connections deployed over hybrid fiber-coax (HFC) architecture are reported in the cable modem category. Wireless ISPs (“WISPs”) report in the fixed wireless category if providing service to dispersed, fixed end-user locations and report in the mobile wireless category if providing a commercial service that can be received at any location within a service footprint. Wireless local area networks (such as Wi-Fi hotspots) that only enable local distribution and sharing of a premises connection are not included, although the shared premises connection is included.

Numbers of connections presented in this report are not adjusted for the number of persons at a single end-user location who have access to, or who use, the Internet access services delivered over the connection to that location.

Numbers of residential connections are estimated based on the total connections and percentage-residential connections information reported on Form 477.

Census tracts

Starting with data as of December 31, 2008, facilities-based providers of reportable fixed-location Internet access connections must report connection counts and percentage residential information at the census tract level of detail. Because of the inherent mobility of their service, facilities-based mobile wireless providers do not report subscriber counts by census tract. Instead, they report the census tracts in the state that best represent the areas where service is available over the provider's own network, for each of the speed tiers in which the provider offers service.

The census tract-level data summarized in this report were collected for tracts in the 2010 decennial census. For the purposes of this report, there are 73,767 census tracts because we exclude census tracts delineated specifically to cover large bodies of water.

About 110 of the census tracts have population but no households because the population resides in group living quarters. For the purpose of estimating residential subscribership rates by census tract, we assume these census tracts have no reportable *residential* Internet access service because persons residing in group quarters would have Internet access over a business connection provided to the operator of the group quarters. Therefore, these census tracts are included in the "zero" column.

Decline in reported mobile wireless connections between June 2008 and December 2008

Changed reporting instructions starting in December 2008 caused a one-time decrease in the reported number of mobile wireless Internet access service connections, from about 60 million in June 2008 to about 25 million in December 2008. For reporting periods through June 30, 2008, Form 477 had instructed mobile wireless providers to report the number of subscribers whose mobile device (such as a wireless modem laptop card, smartphone, or handset) was capable of sending or receiving data at speeds above 200 kbps. The Commission found these instructions insufficiently precise to enable it to determine, from the reported data, the number of subscribers making regular use of Internet access service above 200 kbps as part of their mobile service package. Starting with the December 31, 2008 data, therefore, Form 477 requires mobile wireless providers to report the number of subscribers that have a capable device (as discussed above) for which the subscription includes a data plan for transferring, on a monthly basis, either a specified or an unlimited amount of data to and from Internet sites of the subscriber's choice, and *excluding* subscribers whose choice of content is restricted to only customized-for-mobile content (for example, text and multimedia messaging, or the capacity to download ringtones and games).

Starting with the December 31, 2008, data, providers also must report, explicitly and separately, total subscribers with a device capable of sending or receiving data at speeds above 200 kbps, irrespective of the service plan purchased. The number of such devices reported for December 2008 was about 86 million. That figure is not directly comparable to mobile wireless connections reported for June 2008 or earlier reporting periods, however, because individual providers – to a varying and largely unknown degree – included or excluded subscribers with service plans for less than full Internet access in the earlier data.

Finally, the Form 477 modifications adopted for the December 31, 2008, and later, data specify how mobile wireless providers should distinguish between residential subscribers and other subscribers, and

some of these providers consequently reported a larger share of residential subscribers than they had reported for earlier dates.

Ratios of residential fixed-location connections to households that exceed 100%

Starting with data as of December 31, 2008, information about connections over fixed-location technologies must be reported for individual census tracts. This allows us to estimate the share of households with fixed-location connections in individual census tracts by taking the ratio of the reported number of fixed-location residential service connections to the estimated number of households. In the year-end 2009 data, we continue to find “outlier” estimates at or above 100% and to find that the number of outliers is substantially reduced when estimates are made for individual counties rather than for individual census tracts.

Possible explanations of ratios at or above 100% include (1) geocoding misallocations of service locations to census tracts; (2) proper allocation of connections to the county level by some filers, but improper allocation of all connections to a single tract in the county; (3) possible overestimation of residential connections in service plans for which the customer base is primarily residential; and (4) connections at seasonally or occasionally occupied housing units, such as vacation homes, while the household is counted elsewhere. The numbers of households in census tracts that were used to generate the estimated ratios are themselves estimates (for 2010, from GeoLytics, Inc.), which could have an independent effect.

Maps showing number of providers by census tract

Readers of previous reports in this series may note certain differences in the provider-count maps in this report as compared to maps for June 30, 2008 and earlier dates, which showed the number of providers by 5-digit geographical ZIP Code. The ZIP Code-based maps counted (at the holding company level) each provider with any fixed-location connections (wired, terrestrial fixed wireless, or satellite) reported for the ZIP Code and also any mobile wireless service provider who listed the ZIP Code as part of its service area. By contrast, in this report we provide separate maps for providers (counted at the holding company level) of fixed-location connections and for mobile wireless providers. Also, we present maps showing the number of providers that reported any *residential* fixed-location connections, thereby excluding any providers of exclusively business fixed-location connections in the census tract.

Maps showing residential subscribership rates by census tract

The two maps based on estimated Internet access connections over 200 kbps in at least one direction per 1,000 households (that is, estimated household subscribership, or *adoption*, rates) are not comparable to ZIP Code-based maps developed from FCC Form 477 data for June 30, 2008 and earlier dates because *numbers* of connections were never reported for individual ZIP Codes. Readers should note that these two maps (1) exclude all connections identified as business connections and (2) necessarily exclude residential mobile wireless connections (which are reported for the state but not for individual census tracts).

Glossary

Term	Definition
aDSL	Asymmetric Digital Subscriber Line: A digital local loop typically using copper facilities and providing greater bandwidth in one direction than the other.
Cable modem service	A service which offers customers access to the Internet over a cable system.
Downstream speed	Speed of transmission from the Internet to the end user.
End users	Residential, business, institutional, or government entities who use services for their own purposes and who do not resell such services to other entities.
Facilities-based provider	Entity that owns the portion of the physical facility that terminates at the end-user location, obtains an unbundled network element (UNE), special access line, or other leased facility that terminates at the end-user location and provisions/equips it as a connection that transfers information at rates over 200 kbps in at least one direction, or provisions/equips a wireless channel that transfers information at rates over 200 kbps in at least one direction to the end-user location over licensed spectrum or over spectrum that the provider uses on an unlicensed basis.
Fixed wireless	A radio communication service between specified fixed points.
Fixed-location technologies	All technologies other than terrestrial mobile wireless.
FTTH or FTTP	Fiber to the Home (Premises): A network access architecture in which optical fiber is deployed all the way to the customer's home (premises).
Internet access service	Service that provides end users access to the Internet.
ISPs	Internet Service Providers: Companies or organizations that provide Internet access service (see above).
iVoIP	Interconnected Voice Over Internet Protocol: A service that enables real-time, two-way voice communications; requires a broadband connection from the user's location; requires Internet-protocol compatible customer premises equipment; and permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network.
Mobile wireless service	A radio communication service between mobile and fixed stations, or between mobile stations.
Mobile wireless provider	Provider of mobile wireless service (see above).
Other wireline	All copper-wire based technologies other than DSL technologies; Ethernet over copper and T-1 are examples.
Power line	Internet access service delivered over electric power transmission lines.
Satellite communications	A telecommunications service provided via one or more satellite relays and their associated uplinks and downlinks.
sDSL	Symmetric Digital Subscriber Line: DSL technology that provides equal bandwidth for both uploads and downloads.

Speed tiers	Sub-groupings defined by ranges of upstream speeds and downstream speeds.
Upstream speed	Speed of transmission from the end user to the Internet.
Wi-Fi hotspot	Wireless Fidelity: Generic term referring to any type of IEEE 802.11 wireless network. A hotspot is a small geographic area in which users can gain access to a Wi-Fi network which in turn connects to the Internet.
Wireless service	Telephone, Internet, data, and other services provided to customers through the transmission of signals over networks of radio towers.
Wireless service provider	Provider of wireless service (see above).
Wireless telecommunications	Any means of electronic data transfer using electromagnetic means, most commonly radio waves.
WISP	Wireless ISP: A company that provides end users with wireless access to the Internet, most commonly by using radio spectrum designated for unlicensed use.
WLAN	Wireless local area network: A WLAN uses radio waves to connect user devices to a local area network (LAN), thereby extending an existing wired LAN.

Customer Response

Publication: *Internet Access Services: Status as of December 31, 2011*

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2. Please rate the report: Excellent Good Satisfactory Poor No opinion

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3. Overall, how do you rate this report? Excellent Good Satisfactory Poor No opinion

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