



UNIVERSAL SERVICE MONITORING REPORT

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2016

(Data Received Through September 2016)

Prepared by Federal and State Staff for the
Federal-State Joint Board on Universal Service

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Universal Service Monitoring Report

2016

Introduction and Summary

This is the nineteenth report in a series prepared by federal and state staff members for the Federal-State Joint Board on Universal Service (Universal Service Joint Board).¹ This report is generally based on information available to us as of September 2016. These reports contain information designed to monitor the impact of various universal service support mechanisms and the method used to finance them. These reports are part of a monitoring program created by the Federal Communications Commission in 1997 in CC Docket No. 96-45 to replace a similar program in CC Docket No. 87-339 that previously resulted in a series of nineteen *Monitoring Reports*.²

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

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

This entire report is available electronically in page image (.pdf) format through the FCC's Federal-State Joint Board Monitoring Reports website, located at <http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports>. The tables of the report are available separately as spreadsheet files in a single compressed (.zip) format file at this site also. The *Monitoring Report* is published once a year. Information received well in advance of the next *Monitoring Report* will be made available on an interim basis in separate staff reports or in raw data files (such as most NECA filings used in the *Monitoring Report*) on the Wireline Competition Bureau Statistical Reports Internet site.

Supplementary material is available in a single compressed (.zip) format file at <http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports>. The supplementary material includes tables too extensive to be practical for a printed report. A table listing the files available when this file is unzipped is provided at the end of this introduction.

¹ The last report was released in December 2015. *Universal Service Monitoring Report*, 2015 (Data Received Through September 2015).

² In 1997, the Commission adopted rules to implement section 254 largely based on the recommendations of the Universal Service Joint Board and delegated to the Common Carrier Bureau (the predecessor to the Wireline Competition Bureau), in consultation with the state staff, the creation of a new monitoring program. *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9218, para. 869 (1997) (*Universal Service First Report and Order*). See 47 C.F.R. § 54.702(i).

We continue to look for ways to present universal service data in a way that is useful for the public. Section 3 tables now include a separate category showing the Remote Alaska and Standing Rock support. Table 6.12 now presents telephone and internet subscribership in low-income households, as well as telephone and internet expenses in low-income households. In the 2016 report, we also have eliminated certain tables.³

We invite questions or comments on this report via email at IATDreports@fcc.gov with subject: December 2016 Monitoring Report.

³ The following tables have been deleted: former Supplementary Material tables HCL Benchmarks - by Study Area and Max Subject to Rate Floor - by PC Study Area.

2016 Monitoring Report Supplementary Material

This list provides the names of files provided in the 2016 Monitoring Report Supplementary Material zip file available at <http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports>. Underlined names are folders containing those files after unzipping the file.

<u>Revenues and Contributions</u>	S.1.1. Detailed Telecommunications Revenue - 2015 S.1.2. Estimating End-User Revenue by State - 2014 Technical Appendix S.1.3. Estimating End-User Revenue by State - 2014 Tables S.1.4. Contribution Base Revenues by Program - 2015
<u>Low Income</u>	S.2.1. LI Support - by State S.2.2. LI Support - by Study Area S.2.3. LI Subscribers and Beneficiaries - by State S.2.4. ETCs Receiving Lifeline Support 2015 S.2.5. 2013 and 2014 Updated Table 2.7
<u>High Cost</u>	<u>Claims</u> S.3.1. HC Claims - by State S.3.2. HC Claims - by Study Area S.3.3. HC RoR Claims per Line - by Study Area S.3.4. HC Support Study Areas - 2015 S.3.5. 2016 Rate Floor Report S.3.6. Support Reduction Waiver Requests S.3.7. HC Rate Floor Reductions – by Study Area <u>Disbursements</u> S.3.8. HC Disbursements - by State S.3.9. HC Disbursements - by Study Area S.3.10. HC RoR Disbursements per Line - by Study Area S.3.11. HC Penalties
<u>Schools and Libraries</u>	S.4.1. SL Funds - by Service Type, State, and Funding Year S.4.2. SL Cumulative Funds - by Service Type and State S.4.3. SL Disbursements - by Service Provider Type S.4.4. SL Funds per Student - by State S.4.5. SL Funds - by Applicant Type, State, and Funding Year
<u>Rural Health Care</u>	S.5.1. RHC Funds - by State, Program, and Year S.5.2. RHC Disbursements - by Speed, Year, and State S.5.3. RHC Disbursements - by Speed, Year, and HCP Type S.5.4. RHC Disbursements per Person - by State S.5.5. RHC Funds - by HCP Type, Program, and Year
<u>Subscribership, Penetration, and Minutes of Use</u>	S.6.1. Broadband Penetration by County and Congressional District S.6.2. ILEC Interstate Switched Access Minutes of Use - by Study Area S.6.3. ILEC Interstate Switched Access Minutes of Use - by Tier S.6.4. ILEC Interstate Switched Access Minutes of Use - by State S.6.5. NECA Pool Results

Section 1 - Revenues and Contributions

Overview – Revenues and Contributions

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

Additional information about the revenues collected to support universal service can be found on the Commission's website at <http://www.fcc.gov/encyclopedia/contribution-methodology-administrative-filings> and on USAC's website at <http://www.usac.org/cont/default.aspx>. Please note that that the information provided in this report is based upon Commission rules in effect in 2015.

Table 1.1
Filer Revenues by Service Type: 2005 -2015
(in Millions of Dollars)

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Local Service and Payphone Revenues	Local Exchange and Federal/State USF Support ¹	\$66,506	\$63,264	\$62,790	\$60,721	\$56,839	\$56,993	\$52,718	\$50,598	\$49,016	\$47,495	\$46,515
	Pay Telephone ²	924	659	470	379	268	197	136	362	359	327	286
	Local Private Line ³	25,673	25,448	24,307	26,314	27,098	26,809	28,243	29,101	29,632	31,194	32,191
	Other Local ⁴	3,331	3,884	3,227	3,321	3,531	3,032	3,145	2,408	1,746	1,456	1,493
	Subscriber Line Charges ⁵	11,113	10,827	10,141	9,283	8,363	7,481	6,703	6,195	5,968	5,507	5,175
	Access ⁶	11,822	11,392	10,543	9,776	8,778	8,336	7,368	6,759	6,384	5,016	4,836
	Total Local Service and Payphone Revenues	119,368	115,474	111,478	109,795	104,876	102,847	98,313	95,422	93,105	90,994	90,495
Mobile Revenues	Total Mobile Service Revenues ⁷	104,489	112,442	117,939	120,934	114,625	111,643	107,393	105,183	98,160	86,998	75,263
Toll Service Revenues	Operator ⁸	6,631	5,577	5,874	5,444	4,340	3,585	3,162	3,092	3,064	2,785	2,351
	Non-Operator Switched Toll ⁹	44,876	41,570	42,518	39,329	34,943	27,132	27,557	25,340	23,345	22,518	21,499
	Long Distance Private Line ¹⁰	13,264	12,739	12,080	11,683	11,649	14,344	11,443	12,262	12,542	12,362	12,778
	Other Long Distance ¹¹	2,021	2,154	1,661	2,071	2,708	4,945	4,186	3,929	3,886	3,891	3,050
	Total Toll Service Revenues	66,792	62,039	62,133	58,527	53,640	50,006	46,347	44,624	42,837	41,555	39,678
Total Local, Mobile, and Toll Revenues		290,649	289,954	291,549	289,255	273,141	264,496	252,052	245,229	234,102	219,547	205,436
	Universal Service Surcharges ^{12,13}	7,273	7,314	7,902	8,110	7,911	8,662	8,986	10,012	8,986	9,084	9,041
Total Telecommunications Revenues ¹⁴		297,921	297,269	299,451	297,365	281,052	273,158	261,038	255,242	243,088	228,631	214,477
	Total Non-Telecommunications Revenues ¹⁵	86,764	101,061	131,615	151,494	158,859	173,228	214,538	224,487	251,892	268,260	301,121
Total Reported Revenues		\$384,685	\$398,329	\$431,066	\$448,860	\$439,911	\$446,386	\$475,576	\$479,729	\$494,981	\$496,892	\$515,598

Footnotes to Table 1.1

¹ Dollar amounts are calculated using the sum of Lines 303a, 308a (Federal and State USF Support Revenues), and Line 404a from Form 499-A.

² Dollar amounts are calculated using the sum of Lines 306a and 407a from Form 499-A.

³ Dollar amounts are calculated using the sum of Lines 305a and 406a from Form 499-A.

⁴ Dollar amounts are calculated using the sum of Lines 307a and 408a from Form 499-A.

⁵ Dollar amounts are calculated using Line 405a from Form 499-A. As of 2012, includes Access Recovery Charge (ARC).

⁶ Dollar amounts are calculated using Line 304a from Form 499-A.

⁷ Dollar amounts are calculated using the sum of Lines 309a, 409a, and 410a from Form 499-A.

⁸ Dollar amounts are calculated using the sum of Lines 310a, 411a, 412a, and 413a from Form 499-A.

⁹ Dollar amounts are calculated using the sum of Lines 311a and 414a from Form 499-A.

¹⁰ Dollar amounts are calculated using the sum of Lines 312a and 415a from Form 499-A.

¹¹ Dollar amounts are calculated using the sum of Lines 313a, 314a, 416a, and 417a from Form 499-A.

¹² The surcharge figure indicates only surcharges that have been explicitly reported as such in Form 499-A and does not account for implicit surcharge revenues where carriers collect the surcharge through higher prices.

¹³ Dollar amounts are calculated using Line 403a from Form 499-A.

¹⁴ Subtotal includes surcharge.

¹⁵ Dollar amounts are calculated using Line 418a from Form 499-A.

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

Source: FCC Form 499-A based on filings as of September 19, 2016.

Table 1.2
Filer Revenues¹, Wholesale vs. Retail: 2005-2015
(in Millions of Dollars)

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Wholesale (Carrier's Telecommunications Revenues²)	Local Service ^{3,4}	\$39,213	\$39,392	\$38,383	\$39,200	\$38,285	\$37,955	\$39,807	\$39,783	\$39,101	\$37,974	\$38,976
	Mobile Service ⁵	6,334	5,187	5,360	5,630	4,284	5,006	5,512	5,587	5,384	5,334	5,025
	Toll Service ⁶	16,892	15,101	16,093	13,843	13,003	15,549	11,921	11,425	10,911	10,472	9,955
	Total Wholesale Revenues	62,439	59,679	59,836	58,672	55,571	58,510	57,240	56,796	55,396	53,780	53,955
	Intrastate ⁷	27,486	24,848	22,566	21,836	20,173	22,484	20,379	18,860	17,236	16,182	15,775
	Interstate and International ^{8,9}	34,953	34,831	37,270	36,837	35,399	36,026	36,861	37,936	38,160	37,598	38,180
Percentage Interstate/International	56%	58%	62%	63%	64%	62%	64%	67%	69%	70%	71%	
Retail (End User) Telecommunications Revenues	Local Service ^{3,10}	\$80,155	\$76,082	\$73,095	\$70,598	\$66,591	\$64,892	\$58,506	\$55,639	\$54,004	\$53,020	\$51,519
	Mobile Service ¹¹	98,156	107,255	112,579	115,304	110,341	106,637	101,881	99,596	92,776	81,664	70,238
	Toll Service ¹²	49,900	46,938	46,040	44,681	40,637	34,457	34,426	33,198	31,927	31,083	29,724
	Universal Service Surcharges ¹³	7,272	7,314	7,902	8,110	7,911	8,662	8,986	10,012	8,986	9,084	9,041
	Total Retail Revenues	\$235,482	\$237,589	\$239,615	\$238,693	\$225,481	\$214,648	\$203,798	\$198,446	\$187,693	\$174,851	\$160,522
	Intrastate ¹⁴	154,310	157,653	158,380	157,737	149,493	142,356	133,475	128,409	119,294	107,909	96,592
Interstate and International ^{1,8,15}	81,173	79,937	81,235	80,956	75,988	72,292	70,323	70,037	68,399	66,942	63,930	
Percentage Interstate/International	34%	34%	34%	34%	34%	34%	35%	35%	36%	38%	40%	
Total Telecommunications Revenues (Wholesale + Retail)	Local Service ³	\$119,368	\$115,474	\$111,478	\$109,798	\$104,876	\$102,847	\$98,313	\$95,422	\$93,105	\$90,994	\$90,495
	Mobile Service	104,489	112,442	117,939	120,934	114,625	111,643	107,393	105,183	98,160	86,998	75,263
	Toll Service	66,792	62,039	62,133	58,523	53,640	50,006	46,347	44,624	42,837	41,555	39,678
	Universal Service Surcharges ¹³	7,272	7,314	7,902	8,110	7,911	8,662	8,986	10,012	8,986	9,084	9,041
	Total Telecommunications Revenues	\$297,921	\$297,268	\$299,451	\$297,365	\$281,052	\$273,158	\$261,038	\$255,242	\$243,088	\$228,631	\$214,477
	Intrastate	181,796	182,501	180,946	179,573	169,666	164,840	153,854	147,269	136,530	124,091	112,367
	Interstate and International ⁸	116,125	114,768	118,505	117,793	111,387	108,318	107,184	107,972	106,559	104,540	102,110
Percentage Interstate/International	39%	39%	40%	40%	40%	40%	41%	42%	44%	46%	48%	
Total Non-Telecommunications Revenues	\$86,764	\$101,061	\$131,615	\$151,494	\$158,859	\$173,228	\$214,538	\$224,487	\$251,892	\$268,260	\$301,121	
Total Reported Revenues	\$384,685	\$398,329	\$431,066	\$448,859	\$439,911	\$446,386	\$475,576	\$479,729	\$494,981	\$496,892	\$515,598	

Footnotes to Table 1.2

- ¹ Data include revenues for de minimis filers as well as for other carriers that are exempt from universal service contribution requirements.
- ² Wholesale revenues are reported on the FCC Form 499-A as sales to other universal service contributors for resale. This includes, for example, access services that local exchange carriers provide to toll carriers. Sales to de minimis resellers, end-user customers, government-only providers, international-only providers, and any other non-contributors are treated as end-user revenues. Filers contribute to the universal service funding mechanisms based on their end-user interstate and international revenues. See Table 1.5 for further details on the USF contribution base.
- ³ Payphone revenues and interconnected Voice over Internet Protocol (VoIP) revenues are included with local service revenues in this table.
- ⁴ Dollar amounts are calculated using the sum of Lines 303a to 308a from Form 499-A.
- ⁵ Dollar amounts are calculated using Line 309a from Form 499-A.
- ⁶ Dollar amounts are calculated using the sum of Lines 310a to 314a from Form 499-A.
- ⁷ Dollar amounts are calculated using the sum of Lines 303a to 314a, minus the sum of Lines 303d to 314d, minus the sum of Lines 303e to 314e from Form 499-A.
- ⁸ Revenues from calls that both originate and terminate in foreign points are reported as end-user revenues and are included in this table, but are not included in the universal service
- ⁹ Dollar amounts are calculated using the sum of Lines 303d to 314d, plus the sum of Lines 303e to 314e from Form 499-A.
- ¹⁰ Dollar amounts are calculated using the sum of Lines 404a to 408a from Form 499-A.
- ¹¹ Dollar amounts are calculated using the sum of Lines 409a and 410a from Form 499-A.
- ¹² Dollar amounts are calculated using the sum of Lines 411a to 417a from Form 499-A.
- ¹³ Dollar amounts are calculated using Line 403a from Form 499-A. Surcharges are contribution amounts passed through to end users.
- ¹⁴ Dollar amounts are calculated using the sum of Lines 403a to 417a, minus the sum of Lines 403d to 417d, minus the sum of Lines 403e to 417e from Form 499-A.
- ¹⁵ This line best represents the USF contribution base, which is further described in Table 1.5. Dollar amounts are calculated using the sum of Lines 403d to 417d, plus the sum of Lines 403e to 417e from Form 499-A. This is different from billed interstate and international end user revenue, which does not include international-to-international revenues and uncollected revenues.

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

Source: FCC Form 499-A based on filings as of September 19, 2016.

Table 1.3
2015 Filer Revenues by Service Type: Top 5 Affiliated Entities vs. Other Companies
(in Millions of Dollars)

		Top 5 Affiliated Entities¹	Other Companies	Total
Local Service and Payphone Revenues	Local Exchange ²	\$23,184	\$17,194	\$40,377
	Pay Telephone ³	7	279	286
	Local Private Line ⁴	22,140	10,051	32,191
	Other Local ⁵	885	608	1,493
	Federal and State USF Support ⁶	1,672	4,465	6,138
	Subscriber Line Charges ⁷	2,913	2,262	5,175
	Access ⁸	2,790	2,046	4,836
	Total Local Service and Payphone Revenues	53,590	36,905	90,495
Mobile Revenues	Total Mobile Service Revenues⁹	67,257	8,006	75,263
Toll Service Revenues	Operator ¹⁰	174	2,177	2,351
	Non-Operator Switched Toll ¹¹	9,115	12,384	21,499
	Long Distance Private Line ¹²	7,439	5,339	12,778
	Other Long Distance ¹³	530	2,519	3,050
	Total Toll Service Revenues	17,258	22,420	39,678
Total Local, Mobile, and Toll Revenues		138,105	67,331	205,436
	Universal Service Surcharges ¹⁴	6,577	2,465	9,041
Total Telecommunications Revenues		144,682	69,795	214,477
	Total Non-Telecommunications Revenues ¹⁵	200,440	100,680	301,121
Total Reported Revenues		\$345,122	\$170,476	\$515,598

¹ The "Top 5 Affiliated Entities" are those with the greatest revenues as defined by Line 419a, which includes Lines 303a to 314a and Lines 403a to 418a. These companies are (in alphabetical order): AT&T Inc., CenturyLink, Deutsche Telekom AG, SoftBank Corporation, and Verizon Communications. Affiliated entity structure is as of year-end 2015.

² Dollar amounts are calculated using the sum of Lines 303a and 404a from Form 499-A.

³ Dollar amounts are calculated using the sum of Lines 306a and 407a from Form 499-A.

⁴ Dollar amounts are calculated using the sum of Lines 305a and 406a from Form 499-A.

⁵ Dollar amounts are calculated using the sum of Lines 307a and 408a from Form 499-A.

⁶ Dollar amounts are calculated using Line 308a from Form 499-A.

⁷ Dollar amounts are calculated using Line 405a from Form 499-A. As of 2012, includes Access Recovery Charge.

⁸ Dollar amounts are calculated using Line 304a from Form 499-A.

⁹ Dollar amounts are calculated using the sum of Lines 309a, 409a, and 410a from Form 499-A.

¹⁰ Dollar amounts are calculated using the sum of Lines 310a, 411a, 412a, and 413a from Form 499-A.

¹¹ Dollar amounts are calculated using the sum of Lines 311a and 414a from Form 499-A.

¹² Dollar amounts are calculated using the sum of Lines 312a and 415a from Form 499-A.

¹³ Dollar amounts are calculated using the sum of Lines 313a, 314a, 416a, and 417a from Form 499-A.

¹⁴ Dollar amounts are calculated using Line 403a from Form 499-A.

¹⁵ Dollar amounts are calculated using Line 418a from Form 499-A.

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

Source: FCC Form 499-A based on filings as of September 19, 2016.

Table 1.4
Telecommunications Revenue Reported on FCC Form 499-Q: 2014-2016
(in Millions of Dollars)

Data from FCC Form 499-Q			All Filers	LIRE Exemption ¹	Total Less LIRE
Projected Revenues for 2014	Interstate and International ²	Retail (End User) Billed ³	\$68,042		
		Retail Net of Uncollectibles ⁴	67,005	(2,868)	64,137
		Implied Uncollectible Rate	1.5%		
Historical Revenues Reported for 2014	Intrastate, Interstate, and International	Wholesale (Carrier's Carrier) Billed ⁵	53,148		
		Retail (End User) Billed	174,520		
		Total Revenue	227,668		
	Interstate and International	Retail (End User) Billed	66,091		
Projected Revenues for 2015	Interstate and International	Retail (End User) Billed	64,691		
		Retail Net of Uncollectibles	64,066	(2,881)	61,185
		Implied Uncollectible Rate	1.0%		
Historical Revenues Reported for 2015	Intrastate, Interstate, and International	Wholesale (Carrier's Carrier) Billed	52,382		
		Retail (End User) Billed	160,970		
		Total Revenue	213,352		
	Interstate and International	Retail (End User) Billed	63,447		
Projected Revenues for 2016	Interstate and International	Retail (End User) Billed ⁶	61,506		
		Retail Net of Uncollectibles ^{7,8}	60,955	(2,446)	58,509
		Implied Uncollectible Rate	0.90%		
Historical Revenues Reported for First Half of 2016	Intrastate, Interstate, and International	Wholesale (Carrier's Carrier) Billed ⁹	25,393		
		Retail (End User) Billed ¹⁰	75,450		
		Total Revenue	100,843		
	Interstate and International	Retail (End User) Billed ¹¹	30,592		

¹ A provider receives the Limited International Revenue Exemption (LIRE) and its international revenues are excluded from the contribution base if the total amount of interstate end-user revenues for the filing entity consolidated with all affiliates is less than 12% of the total of interstate and international end-user revenues for the filing entity consolidated with all affiliates. Affiliated filer entities who do not pass the 12% rule, but whose USF obligation exceeds its interstate revenue may be considered for the LIRE exemption on a case by case basis. See 47 C.F.R. § 54.706(c). In addition, filers that provide only international services are exempt regardless of services offered by affiliates.

² Projected intrastate revenues are not reported on FCC Form 499-Q.

³ Prior to 2014, line was referred to as "Billed to End Users".

⁴ Prior to 2014, line was referred to as "Collected from End Users".

⁵ Prior to 2014, line was referred to as "Billed to Resellers".

⁶ Dollar amounts for projected revenues billed to end users are calculated using the sum of Lines 119b and 119c from Form 499-Q.

⁷ Dollar amounts for projected revenues collected from end users are calculated using the sum of Lines 120b and 120c from Form 499-Q.

⁸ Dollar amounts for projected LIRE exempt revenues are calculated using the sum of Lines 120b and 120c in the Form 499Q filings from those filers who are LIRE-exempt.

⁹ Dollar amounts for historical revenues billed to wholesaler is calculated using Line 115a from Form 499-Q.

¹⁰ Dollar amounts for historical revenues billed to retail is calculated using Line 116a from Form 499-Q.

¹¹ Dollar amounts for interstate and international historical revenues billed to end users is calculated using the sum of Lines 116b and 116c from Form 499-Q.

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

Source: FCC Form 499-Q.

Table 1.5
USF Contribution Base by Year¹: 2005-2015
(in Millions of Dollars)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Revenues Subject to USF Contribution											
Billed interstate and international retail (end-user) revenues (includes Universal Service Surcharge) [Line 403 to Line 417, parts (d) and (e)]	\$81,173	\$79,937	\$81,235	\$80,956	\$75,988	\$72,292	\$70,323	\$70,037	\$68,399	\$66,942	\$63,930
less revenues for international-to-international services [Line 412(e)]	873	708	886	862	576	469	452	444	589	673	362
less international revenues of international-only filers and international revenues that were excluded because of the LIRE Exemption ²	3,742	3,598	3,978	4,148	3,393	3,326	3,079	2,653	3,086	2,827	2,616
less interstate and other international revenues for filers who are de minimis or otherwise exempt from universal service support requirements	54	57	50	51	49	34	31	28	31	31	31
less uncollectible contribution base revenues [Line 422(d) + Line 422(e)] ³	1,231	1,073	1,301	1,131	1,075	960	787	709	610	527	470
equals	\$75,272	\$74,499	\$75,020	\$74,764	\$70,895	\$67,503	\$65,971	\$66,203	\$64,083	\$62,884	\$60,451

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

² A provider receives the Limited International Revenue Exemption (LIRE) and its international revenues are excluded from the contribution base if the total amount of interstate end-user revenues for the filing entity consolidated with all affiliates is less than 12% of the total of interstate and international end-user revenues for the filing entity consolidated with all affiliates. Affiliated filer entities who do not pass the 12% rule, but whose USF obligation exceeds its interstate revenue may request to be considered for the LIRE exemption on a case by case basis. See 47 C.F.R. § 54.706(c). In addition, filers that provide only international services are exempt regardless of services offered by affiliates.

³ Does not include uncollectible amounts associated with filers who are de minimis or LIRE exempt.

Note: Detail may not add to totals due to rounding. Revisions have been made for 2007.

Source: FCC Form 499-A based on filings as of September 19, 2016.

Table 1.6
Universal Service Fund Contribution Factor¹

Year	Quarter	Factor
2004	First Quarter	8.7
	Second Quarter	8.7
	Third Quarter	8.9
	Fourth Quarter	8.9
2005	First Quarter	10.7
	Second Quarter	11.1
	Third Quarter	10.2
	Fourth Quarter	10.2
2006	First Quarter	10.2
	Second Quarter	10.9
	Third Quarter	10.5
	Fourth Quarter	9.1
2007	First Quarter	9.7
	Second Quarter	11.7
	Third Quarter	11.3
	Fourth Quarter	11.0
2008	First Quarter	10.2
	Second Quarter	11.3
	Third Quarter	11.4
	Fourth Quarter	11.4
2009	First Quarter	9.5
	Second Quarter	11.3
	Third Quarter	12.9
	Fourth Quarter	12.3
2010	First Quarter	14.1
	Second Quarter	15.3
	Third Quarter	13.6
	Fourth Quarter	12.9
2011	First Quarter	15.5
	Second Quarter	14.9
	Third Quarter	14.4
	Fourth Quarter	15.3
2012	First Quarter	17.9
	Second Quarter	17.4
	Third Quarter	15.7
	Fourth Quarter	17.4
2013	First Quarter	16.1
	Second Quarter	15.5
	Third Quarter	15.1
	Fourth Quarter	15.6
2014	First Quarter	16.4
	Second Quarter	16.6
	Third Quarter	15.7
	Fourth Quarter	16.1
2015	First Quarter	16.8
	Second Quarter	17.4
	Third Quarter	17.1
	Fourth Quarter	16.7
2016	First Quarter	18.2
	Second Quarter	17.9
	Third Quarter	17.9
	Fourth Quarter	17.4

¹ Carriers contribute based on projected, collected, end-user interstate and international telecommunications revenues.

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

Table 1.7
Billed Interstate and International Retail Telecommunications Revenues¹ by
Top 5 Affiliated Entities vs. Other Companies: 2013 - First Half 2016
(in Millions of Dollars)

	2013	2014	2015	Preliminary ³ First Half 2016
Top 5 Affiliated Entities²	\$48,530	\$46,870	\$43,682	\$20,738
Other Companies	19,870	20,072	20,247	9,854
Total	\$68,399	\$66,942	\$63,930	\$30,592

¹ Revenues for 2013-2015 are calculated as the sum of Lines 403d to 417d (interstate end user revenue) and 403e to 417e (international end user revenue). The method for calculating revenue figures has been adjusted from previous years.

² The "Top 5 Affiliated Entities" are the five affiliated entities with the greatest revenues as defined by Line 419a, which is the sum of Lines 303a to 314a and Lines 403a to 418a, and is determined as of each year-end affiliate structure. These companies for 2012 are (in alphabetical order): AT&T Inc., CenturyLink, Deutsche Telekom AG, Sprint Nextel Corporation, and Verizon Communications. These companies for 2013 - 2015 are (in alphabetical order): AT&T Inc., CenturyLink, Deutsche Telekom AG, SoftBank Corporation (which acquired Sprint Nextel Corporation in June 2013), and Verizon Communications.

³ Preliminary revenues are calculated using Line 116b plus Line 116c for each quarter in FCC Form 499-Q.

Note: Detail may not add to totals due to rounding. Figures include VoIP revenues.

Source: Data for 2013 are based on filings as of May 5, 2014. Data for 2014 are based on filings as of June 3, 2015. Data for 2015 are based on filings as of September 19, 2016. Data for 2016 are based on FCC Form 499-Q.

Table 1.8
End User Telecommunications Revenue by State: 2014
(in Millions of Dollars)

	Intrastate	Interstate and International	Total	% Intrastate	% Interstate and International	% Total
Alabama	\$1,506	\$931	\$2,437	1.40 %	1.39 %	1.39 %
Alaska	245	169	414	0.23	0.25	0.24
American Samoa	9	6	14	0.01	0.01	0.01
Arizona	2,045	1,358	3,403	1.89	2.03	1.95
Arkansas	917	578	1,495	0.85	0.86	0.86
California	13,114	7,216	20,329	12.15	10.78	11.63
Colorado	1,781	1,274	3,055	1.65	1.90	1.75
Connecticut	1,334	946	2,280	1.24	1.41	1.30
Delaware	345	247	591	0.32	0.37	0.34
District of Columbia	545	359	903	0.50	0.54	0.52
Florida	6,570	4,130	10,700	6.09	6.17	6.12
Georgia	3,319	2,098	5,417	3.08	3.13	3.10
Guam	50	35	85	0.05	0.05	0.05
Hawaii	466	328	794	0.43	0.49	0.45
Idaho	460	316	229	0.43	0.47	0.13
Illinois	4,384	2,691	7,074	4.06	4.02	4.05
Indiana	2,037	1,272	3,309	1.89	1.90	1.89
Iowa	959	638	1,597	0.89	0.95	0.91
Kansas	932	570	1,502	0.86	0.85	0.86
Kentucky	1,357	879	2,236	1.26	1.31	1.28
Louisiana	1,534	895	2,429	1.42	1.34	1.39
Maine	454	302	756	0.42	0.45	0.43
Maryland	2,229	1,458	3,687	2.07	2.18	2.11
Massachusetts	2,600	1,601	4,201	2.41	2.39	2.40
Michigan	3,279	1,914	5,193	3.04	2.86	2.97
Minnesota	1,910	1,221	3,131	1.77	1.82	1.79
Mississippi	848	530	1,378	0.79	0.79	0.79
Missouri	1,942	1,257	3,199	1.80	1.88	1.83
Montana	328	234	563	0.30	0.35	0.32
Nebraska	613	464	1,077	0.57	0.69	0.62
Nevada	934	582	1,516	0.87	0.87	0.87
New Hampshire	460	317	776	0.43	0.47	0.44
New Jersey	3,418	2,193	5,611	3.17	3.28	3.21
New Mexico	618	424	1,042	0.57	0.63	0.60
New York	7,554	4,444	11,997	7.00	6.64	6.86
North Carolina	3,115	1,980	5,095	2.89	2.96	2.91
North Dakota	245	169	414	0.23	0.25	0.24
N. Mariana Islands	12	7	19	0.01	0.01	0.01
Ohio	4,008	2,408	6,417	3.71	3.60	3.67
Oklahoma	1,201	717	1,918	1.11	1.07	1.10
Oregon	1,232	801	2,033	1.14	1.20	1.16
Pennsylvania	4,587	2,871	7,459	4.25	4.29	4.27
Puerto Rico	910	715	1,626	0.84	1.07	0.93
Rhode Island	364	222	586	0.34	0.33	0.33
South Carolina	1,507	972	2,479	1.40	1.45	1.42
South Dakota	283	189	471	0.26	0.28	0.27
Tennessee	2,125	1,289	3,413	1.97	1.93	1.95
Texas	8,284	4,797	13,082	7.68	7.17	7.48
Utah	800	548	1,348	0.74	0.82	0.77
Vermont	227	166	393	0.21	0.25	0.22
Virgin Islands	46	52	99	0.04	0.08	0.06
Virginia	2,967	1,955	4,922	2.75	2.92	2.81
Washington	2,278	1,436	3,713	2.11	2.14	2.12
West Virginia	588	452	1,041	0.55	0.68	0.60
Wisconsin	1,846	1,187	3,033	1.71	1.77	1.73
Wyoming	190	133	323	0.18	0.20	0.18
Total	\$107,909	\$66,942	\$174,851	100.00 %	100.00 %	100.00 %

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

Source: FCC/WCB staff estimates. For methodology end-user revenue per state, see the Technical Appendix at <http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports>.

Table 1.9
Universal Service Support Mechanisms by State: 2015
(Annual Payments and Contributions in Thousands of Dollars)

	Payments from USF to Providers						Estimated Contributions ³		Estimated Net Dollar Flow ⁴
	High-Cost Support	Low-Income Support	Schools & Libraries	Rural Health Care ²	Total		Amount	% of Total	
					Amount	% of Total			
Alabama	\$87,616	\$22,662	\$37,499	\$2,634	\$150,411	1.80 %	\$118,386	1.39 %	\$32,025
Alaska	195,911	13,206	57,810	97,921	364,848	4.36	21,534	0.25	343,314
American Samoa	2,998	109	1,809	0	4,916	0.06	716	0.01	4,200
Arizona	73,224	48,724	46,407	2,502	170,857	2.04	172,815	2.03	-1,958
Arkansas	115,936	12,440	21,853	9,971	160,200	1.91	73,510	0.86	86,690
California	134,263	223,252	302,143	22,466	682,124	8.15	917,956	10.78	-235,831
Colorado	66,943	9,729	20,278	3,845	100,795	1.20	162,013	1.90	-61,218
Connecticut	461	12,950	15,912	16	29,339	0.35	120,367	1.41	-91,028
Delaware	228	3,627	1,703	0	5,557	0.07	31,398	0.37	-25,841
District of Columbia	0	4,645	5,636	0	10,281	0.12	45,613	0.54	-35,332
Florida	64,604	86,593	68,089	896	220,182	2.63	525,405	6.17	-305,224
Georgia	118,016	51,891	68,992	9,321	248,220	2.96	266,928	3.13	-18,708
Guam	11,967	177	229	108	12,480	0.15	4,431	0.05	8,050
Hawaii	16,388	2,991	3,154	76	22,609	0.27	41,773	0.49	-19,164
Idaho	45,001	1,785	7,975	1,403	56,164	0.67	40,157	0.47	16,007
Illinois	108,785	55,686	86,682	6,037	257,190	3.07	342,293	4.02	-85,103
Indiana	113,919	22,139	51,656	3,623	191,337	2.29	161,843	1.90	29,494
Iowa	175,365	6,414	15,517	1,670	198,966	2.38	81,164	0.95	117,802
Kansas	173,296	7,223	18,052	2,578	201,150	2.40	72,518	0.85	128,632
Kentucky	147,437	26,601	32,065	4,428	210,531	2.51	111,785	1.31	98,746
Louisiana	94,385	25,746	47,747	1,814	169,692	2.03	113,806	1.34	55,886
Maine	28,953	4,837	7,441	2,814	44,046	0.53	38,404	0.45	5,641
Maryland	3,584	21,456	25,540	210	50,791	0.61	185,440	2.18	-134,650
Massachusetts	2,289	25,434	30,057	544	58,324	0.70	203,691	2.39	-145,367
Michigan	84,470	60,540	40,140	3,609	188,759	2.25	243,485	2.86	-54,726
Minnesota	172,381	11,347	29,450	3,666	216,844	2.59	155,384	1.82	61,461
Mississippi	185,395	17,055	23,282	6,921	232,654	2.78	67,411	0.79	165,242
Missouri	164,843	18,402	49,638	4,314	237,197	2.83	159,874	1.88	77,323
Montana	94,911	1,675	5,189	1,143	102,918	1.23	29,822	0.35	73,096
Nebraska	92,575	1,090	11,174	1,928	106,767	1.28	59,012	0.69	47,755
Nevada	21,799	14,413	5,989	808	43,009	0.51	74,006	0.87	-30,997
New Hampshire	12,414	2,004	3,037	266	17,721	0.21	40,306	0.47	-22,585
New Jersey	1,107	26,838	56,449	0	84,394	1.01	278,922	3.28	-194,528
New Mexico	83,418	17,831	24,114	4,962	130,325	1.56	53,919	0.63	76,406
New York	49,298	99,825	100,846	3,817	253,786	3.03	565,274	6.64	-311,489
North Carolina	80,638	36,732	78,161	6,668	202,198	2.42	251,923	2.96	-49,725
North Dakota	109,713	1,716	3,355	1,988	116,772	1.39	21,462	0.25	95,310
N. Mariana Islands	3,209	269	737	0	4,215	0.05	862	0.01	3,353
Ohio	84,698	62,168	75,440	2,696	225,002	2.69	306,331	3.60	-81,330
Oklahoma	129,511	113,521	49,259	9,562	301,853	3.61	91,217	1.07	210,636
Oregon	76,974	7,967	16,200	3,749	104,890	1.25	101,950	1.20	2,940
Pennsylvania	79,464	50,132	63,814	2,723	196,132	2.34	365,290	4.29	-169,157
Puerto Rico	114,776	60,601	21,912	0	197,289	2.36	90,998	1.07	106,292
Rhode Island	30	5,563	6,395	0	11,988	0.14	28,245	0.33	-16,257
South Carolina	108,351	24,818	39,443	1,903	174,515	2.08	123,669	1.45	50,847
South Dakota	90,180	1,011	3,112	1,811	96,114	1.15	24,017	0.28	72,097
Tennessee	91,221	34,349	39,556	4,186	169,312	2.02	163,931	1.93	5,382
Texas	274,574	80,707	201,931	17,812	575,025	6.87	610,277	7.17	-35,253
Utah	27,034	4,006	19,570	1,271	51,880	0.62	69,768	0.82	-17,888
Vermont	20,622	1,282	3,567	148	25,618	0.31	21,171	0.25	4,447
Virgin Islands	16,428	380	2,419	0	19,227	0.23	6,623	0.08	12,603
Virginia	81,780	19,629	35,764	4,558	141,731	1.69	248,655	2.92	-106,924
Washington	76,977	18,729	33,505	786	129,997	1.55	182,621	2.14	-52,624
West Virginia	53,573	8,749	18,993	2,098	83,413	1.00	57,562	0.68	25,851
Wisconsin	192,904	19,760	41,847	10,205	264,716	3.16	150,988	1.77	113,728
Wyoming	42,581	92	1,853	485	45,011	0.54	16,928	0.20	28,084
Total	\$4,499,415	\$1,513,520	\$2,080,387	\$278,960	\$8,372,282	100.00 %	\$8,515,850	100.00 %	-\$143,568

Notes: Figures may not add due to rounding. USF is an abbreviation for the Universal Service Fund.

¹ Data are from USAC.

² Includes both the primary and pilot programs.

³ Contributions include administrative cost of approximately \$144 million, as shown in USAC's Annual Report. Allocation of contributions among states is an FCC estimate. See the Technical Appendix at <http://www.fcc.gov/encyclopedia/federal-state-joint-board-monitoring-reports>.

⁴ Net dollar flow is positive when payments from USF to carriers exceed contributions to USF. Total is negative because of administrative expenses.

Table 1.10
Universal Service Disbursements 2001-2015
(in Millions of Dollars)

Year	High-Cost Support	Low-Income Support	Rural Health Care	Schools and Libraries	Total
2001	\$2,602	\$584	\$8	\$1,464	\$4,659
2002	2,978	673	16	1,683	5,350
2003	3,273	713	3	1,644	5,633
2004	3,488	759	1	1,076	5,324
2005	3,824	809	26	1,862	6,520
2006	4,096	820	41	1,669	6,626
2007	4,287	823	37	1,808	6,955
2008	4,478	819	49	1,760	7,106
2009	4,292	1,025	72	1,878	7,268
2010	4,268	1,316	110	2,282	7,976
2011	4,031	1,751	141	2,233	8,156
2012	4,147	2,189	155	2,218	8,710
2013	4,165	1,798	159	2,204	8,326
2014	3,733	1,660	193	2,269	7,855
2015	4,499	1,514	279	2,080	8,372

Notes: Figures may not add due to rounding. The figures used in this table are for the calendar year and include disbursements that were committed over several years but paid out in the respective calendar year. In Sections 4 and 5, figures for the Schools and Libraries program and the Rural Health Care program are reported based on fiscal year rather than calendar year. Rural Health Care support includes both the primary and pilot programs.

Source: Universal Service Administration Company (USAC).

Table 1.11
Universal Service Program Requirements and Contribution Factors for 2016
(in Millions of Dollars)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
High Cost					
High Cost Loop Support	\$181.57	\$181.59	\$177.51	\$170.85	\$711.52
Interstate Common Line Support	\$241.00	\$241.02	\$250.15	\$237.86	\$970.03
CAF - Phase I Frozen Support ¹	\$43.54	\$43.15	\$43.14	\$41.69	\$171.52
Frozen Competitive ETC Support ²	\$148.60	\$149.11	\$148.66	\$147.21	\$593.58
CAF - Inter-carrier Compensation Support	\$106.35	\$106.75	\$107.00	\$106.99	\$427.09
Change to High-Cost Account ³	\$7.26	\$6.83	\$0.38	\$11.07	\$25.54
CAF - Phase II Cost Model	\$396.40	\$395.85	\$397.41	\$408.58	\$1,598.24
Rural Broadband Experiments	\$0.28	\$0.70	\$0.75	\$0.75	\$2.48
Prior Period Adjustment	\$27.06	-\$10.33	-\$9.12	\$5.77	\$13.38
USAC Administrative Costs	\$10.58	\$9.25	\$11.46	\$9.25	\$40.54
Interest Income ⁴	-\$2.65	-\$2.56	-\$3.30	-\$3.92	-\$12.43
Program Total	\$1,159.99	\$1,121.36	\$1,124.04	\$1,136.10	\$4,541.49
Low Income					
Lifeline Assistance	\$395.46	\$400.47	\$229.00	\$391.62	\$1,570.56
Link-Up	\$0.11	\$0.11	\$0.17	\$0.08	\$0.47
Prior Period Adjustment	-\$0.26	-\$0.40	-\$22.24	-\$7.54	-\$30.44
USAC Administrative Costs	\$5.60	\$5.04	\$6.06	\$7.81	\$24.51
Interest Income ⁴	-\$0.16	-\$0.11	-\$0.10	-\$0.14	-\$0.51
Program Total	\$400.75	\$405.11	\$212.89	\$391.83	\$1,564.59
Rural Health					
Rural Health Care Support	\$72.79	\$67.97	\$72.19	\$147.80	\$360.75
Prior Period Adjustment	\$1.14	-\$0.80	-\$0.52	\$0.32	\$0.14
USAC Administrative Costs	\$3.10	\$3.00	\$3.24	\$4.75	\$14.09
Interest Income ⁴	-\$0.42	-\$0.44	-\$0.59	-\$0.61	-\$2.06
Program Total	\$76.61	\$69.73	\$74.32	\$152.26	\$372.92
Schools & Libraries					
Schools and Libraries Support	\$603.45	\$603.45	\$603.45	\$380.03	\$2,190.38
Prior Period Adjustment	\$17.17	-\$5.55	-\$5.69	\$1.36	\$7.29
Interest Income ⁴	-\$6.00	-\$6.17	-\$8.06	-\$9.60	-\$29.83
Administrative expenses	\$24.83	\$23.46	\$29.20	\$31.61	\$109.10
Program Total	\$639.45	\$615.19	\$618.90	\$403.40	\$2,276.94
Grand Total	\$2,276.80	\$2,211.39	\$2,030.15	\$2,083.59	\$8,755.94
Applicable interstate and international end-user revenues					
Reported contribution base revenues	\$14,928.53	\$14,737.05	\$14,555.86	\$14,215.13	
Circulatory Adjustment					
Amount carriers will contribute to USF in this quarter	-\$2,276.80	-\$2,211.39	-\$2,184.16	-\$2,083.59	
Subtotal	\$12,651.73	\$12,525.66	\$12,371.70	\$12,131.54	
Adjustment factor for uncollectibles	1.0%	1.0%	1.0%	1.0%	
Contribution base at the time the factor was calculated	\$12,525.21	\$12,400.41	\$12,247.98	\$12,010.22	
Contribution factor	18.2%	17.9%	17.9%	17.4%	
Contribution factor times contribution base	\$2,279.59	\$2,219.67	\$2,192.39	\$2,089.78	

¹ In the *USF/ICC Transformation Order*, the Commission converted support received by Price Cap carriers and their rate-of-return affiliates, including IAS, HCMS, ICLS, LSS, and HCLS, to CAF Phase I Frozen Support. *USF/ICC Transformation Order*, paras. 128-57.

² In the *USF/ICC Transformation Order*, the Commission froze support received by competitive ETCs, including IAS, HCMS, ICLS, LSS, and HCLS at 2011 levels, effective January 1, 2012, and began phasing the frozen support down effective July 1, 2012. *USF/ICC Transformation Order*, paras. 498-32.

³ In the *USF/ICC Transformation Order*, the Commission created the Connect America reserve to be used to manage fluctuations in high-cost demand. *Id.*, paras. 547-56. Subsequently, in 2016, in the *Rate-of-Return Reform Order*, para. 60 n.130, the Commission directed USAC to eliminate the CAF reserve and to combine those funds with the high-cost account.

⁴ Interest income is shown as negative because it is subtracted from expenses to yield the total.

Source: Support mechanism data are from USAC Appendix M02 from pertinent filings as shown at <http://www.usac.org/about/tools/fcc/filings/default.aspx>. Contribution factor information is available at <https://www.fcc.gov/encyclopedia/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support>.

Table 1.12
Monthly Universal Service Contributions per Household
Inflation Adjusted 2015 Dollars

	Total Contributions					Residential Contributions	
	High-Cost Support	Low-Income Support	Rural Health Care	Schools and Libraries	Total	Per-Household Low Estimate	Per-Household High Estimate
2011	\$3.34	\$1.25	\$0.07	\$1.75	\$6.41	\$2.88	\$3.52
2012	3.28	1.74	0.09	1.74	6.85	3.08	3.77
2013	3.12	1.12	0.12	1.62	5.98	2.69	3.29
2014	3.05	1.13	0.16	1.60	5.94	2.67	3.26
2015	2.99	0.98	0.18	1.61	5.76	2.59	3.17
2016	2.96	1.02	0.24	1.48	5.70	2.56	3.13

Notes: Performance measures reported pursuant to the *USF/ICC Transformation Order* and *Lifeline Reform Order*. Figures do not represent the average amount individual households see on their bills because universal service contribution data do not separate business from residential contributions. The Commission does not currently collect data that would allow the residential amount to be calculated accurately. FCC staff, using data from FCC Forms 477 and 499, Access filings with the FCC and a third party report, estimates that contributions based on services typically sold to residential users represent roughly one-half of overall contributions; the third party data source used in creating these estimates is the 2015 Telecommunications Industry Association (TIA) Market Forecast and Review. FCC staff believe that the residential portion of the total contribution is between 45% (low estimate) and 55% (high estimate).

Source: Universal service contributions in 2011 from Table 1.10 of the 2011 *Monitoring Report* and for 2012 from Table 1.9 of the 2012 *Monitoring Report* and for 2013 from Table 1.9 and for 2014 from Table 1.11 and for 2015 from Table 1.11. Inflation adjusted using CPI values reported for July of each year in Table 7.3. Household data as reported in Table 6.1 were used to calculate per household amount.

Section 2 – Lifeline (Low Income)

Overview – Lifeline Program for Low-Income Consumers

Since 1985, the Universal Service Lifeline program has provided a discount on phone service for qualifying low-income consumers to ensure that all Americans have the opportunities and security that phone service brings, including being able to connect to jobs, family and emergency services. Recently, the Commission has made ensuring the availability of broadband service for low-income Americans a goal of the Lifeline program. In 2016, the Commission adopted the Lifeline Modernization Order, which sets forth a comprehensive reform and modernization of the Lifeline program. In that Order, the Commission included broadband as a supported service in the Lifeline program, set out minimum service standards for Lifeline-supported services to ensure maximum value for the universal service dollar, and established a National Eligibility Verifier to make independent subscriber eligibility determinations. Many of the reforms in the Lifeline Modernization Order take effect on December 2, 2016.

The Lifeline program is available to eligible low-income consumers in every state, territory, commonwealth, and on Tribal lands. Consumers with proper proof of eligibility may be qualified to enroll. To participate in the program, consumers must have an income that is at or below 135% of the federal Poverty Guidelines or participate in a qualifying assistance program. The Lifeline program is administered by the Universal Service Administrative Company (USAC).

Additional information about the Lifeline program can be found on the Commission’s website at <http://www.fcc.gov/lifeline> and on USAC’s website at <http://www.usac.org/li/>. Please note that the information provided in this report is based upon the program rules through September 15, 2016.

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

Year	Lifeline			Link Up		
	Non-Tribal	Tribal	Total	Non-Tribal	Tribal	Total
1987			1,063			8
1988			1,829			106
1989			2,115			207
1990			2,467			513
1991			2,984			640
1992			3,440			743
1993			3,972			737
1994			4,423			838
1995			4,914			824
1996			5,233			808
1997 ¹			5,111			NA
1998	5,376	0	5,376	2,195	0	2,195
1999	5,638	0	5,638	1,835	0	1,835
2000	5,856	4	5,861	1,690	2	1,692
2001	6,088	53	6,140	1,670	23	1,694
2002	6,393	111	6,504	1,657	30	1,687
2003	6,352	146	6,498	1,662	23	1,685
2004	6,612	176	6,788	1,670	42	1,712
2005	6,829	234	7,063	1,672	90	1,762
2006	6,634	287	6,921	1,553	101	1,654
2007	6,615	328	6,943	1,382	112	1,494
2008	6,382	350	6,732	1,510	118	1,627
2009	7,661	371	8,032	1,751	111	1,862
2010	9,883	382	10,265	2,510	126	2,636
2011	13,301	463	13,764	4,014	285	4,300
2012	16,405	761	17,166	1,228	180	1,408
2013	13,834	650	14,484	0	17	17
2014	12,944	503	13,447	0	29	29
2015	12,090	418	12,509	0	20	20

NA - Not available.

Note: The Lifeline subscribers and Link Up beneficiaries represent USAC data for the time period January through December, including true-ups reported through August 2016. Data for 2009-2014 were revised.

¹ Subscriber data were not collected in 1997. Lifeline subscribership data were estimated by USAC.

Source: Universal Service Administrative Company.

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

Year	Lifeline					Link Up			Total
	General	Additional Tribal ²	TLS ³	PICC ⁴	Total	Non-Tribal	Tribal	Total	
1988	\$31,952	\$0	\$0	\$0	\$31,952	\$1,991	\$0	\$1,991	\$33,943
1989	50,878	0	0	0	50,878	4,480	0	4,480	55,358
1990	62,464	0	0	0	62,464	11,351	0	11,351	73,815
1991	79,104	0	0	0	79,104	13,705	0	13,705	92,809
1992	93,766	0	0	0	93,766	15,342	0	15,342	109,108
1993	109,083	0	0	0	109,083	17,019	0	17,019	126,102
1994	123,284	0	0	0	123,284	18,573	0	18,573	141,857
1995	137,277	0	0	0	137,277	18,392	0	18,392	155,670
1996	148,186	0	0	0	148,186	18,247	0	18,247	166,433
1997	147,579	0	0	0	147,579	13,711	0	13,711	161,290
1998 ¹	416,504	0	2,700	2,802	422,006	42,461	0	42,461	464,467
1999	438,578	0	3,134	4,450	446,162	33,988	0	33,988	480,150
2000	482,052	522	2,846	3,168	488,588	30,411	30	30,441	519,029
2001	548,419	6,960	3,195	0	558,574	30,314	475	30,788	589,362
2002	623,350	17,955	3,779	0	645,083	30,323	700	31,022	676,106
2003	657,095	24,167	4,425	0	685,687	30,170	515	30,686	716,373
2004	695,188	30,502	5,111	0	730,800	30,898	1,230	32,129	762,929
2005	716,133	45,124	6,215	0	767,472	31,715	2,788	34,503	801,975
2006	703,958	61,524	8,885	0	774,367	29,832	2,869	32,701	807,068
2007	710,180	73,145	8,514	0	791,839	27,816	3,575	31,391	823,230
2008	695,015	80,914	8,634	0	784,563	30,682	6,578	37,260	821,823
2009	867,541	88,061	8,959	0	964,561	40,807	7,485	48,291	1,012,852
2010	1,125,630	92,877	22,214	0	1,240,721	67,296	9,798	77,094	1,317,815
2011	1,521,906	118,119	10,872	0	1,650,897	108,577	21,528	130,104	1,781,001
2012	1,919,838	210,393	6,646	0	2,136,878	34,770	11,940	46,710	2,183,588
2013	1,607,205	179,894	2,690	0	1,789,789	0	567	567	1,790,356
2014	1,492,371	137,366	0	0	1,629,737	0	640	640	1,630,377
2015	1,388,442	119,006	0	0	1,507,448	0	447	447	1,507,895

Note: Data for 2009-2014 were updated to account for true-ups.

¹ Effective in 1998, the federal Lifeline support mechanism was expanded so that a basic level of assistance would be provided in all states. Further, the basic level of federal support was increased in 1998.

² Tribal Lifeline subscribers also receive General support which is currently \$9.25 per subscriber. This amount is not included in Additional Tribal support.

³ TLS is an abbreviation for toll limitation service.

⁴ Carriers no longer charge a residential Presubscribed Interexchange Carrier Charge (PICC) as of July 1, 2000.

Source: Universal Service Administrative Company.

Table 2.3
Low-Income Claims by State: 2015
(in Thousands of Dollars)

State or Jurisdiction	Lifeline		Link Up		TLS	Total
	General	Additional Tribal	Non-Tribal	Tribal		
Alabama	\$21,685	\$99	\$0	\$0	\$0	\$21,784
Alaska	3,869	9,483	0	16	0	13,368
American Samoa	82	0	0	0	0	82
Arizona	32,507	16,015	0	205	0	48,728
Arkansas	11,874	2	0	0	0	11,876
California	229,207	32	0	0	0	229,239
Colorado	9,366	8	0	0	0	9,374
Connecticut	12,913	0	0	0	0	12,913
Delaware	3,593	0	0	0	0	3,593
District of Columbia	4,636	0	0	0	0	4,636
Florida	94,599	0	0	0	0	94,599
Georgia	50,438	0	0	0	0	50,438
Guam	177	0	0	0	0	177
Hawaii	2,627	555	0	0	0	3,181
Idaho	1,509	146	0	0	0	1,655
Illinois	53,765	0	0	0	0	53,765
Indiana	21,768	0	0	0	0	21,768
Iowa	6,364	14	0	0	0	6,378
Kansas	6,549	14	0	0	0	6,564
Kentucky	26,360	0	0	0	0	26,360
Louisiana	25,440	0	0	0	0	25,440
Maine	4,748	13	0	0	0	4,761
Maryland	21,696	0	0	0	0	21,696
Massachusetts	25,167	0	0	0	0	25,167
Michigan	59,681	50	0	0	0	59,732
Minnesota	10,551	981	0	0	0	11,532
Mississippi	16,453	18	0	0	0	16,471
Missouri	17,197	2	0	0	0	17,199
Montana	685	927	0	16	0	1,628
Nebraska	969	64	0	0	0	1,033
Nevada	13,716	452	0	0	0	14,168
New Hampshire	1,992	0	0	0	0	1,992
New Jersey	27,105	0	0	0	0	27,105
New Mexico	9,426	8,543	0	147	0	18,117
New York	98,989	0	0	0	0	98,989
North Carolina	35,743	36	0	0	0	35,778
North Dakota	965	787	0	9	0	1,761
Northern Mariana Islands	267	0	0	0	0	267
Ohio	59,530	0	0	0	0	59,530
Oklahoma	30,356	78,294	0	36	0	108,687
Oregon	7,461	24	0	0	0	7,485
Pennsylvania	50,235	0	0	0	0	50,235
Puerto Rico	61,434	0	0	0	0	61,434
Rhode Island	5,539	0	0	0	0	5,539
South Carolina	23,811	19	0	0	0	23,830
South Dakota	806	216	0	9	0	1,030
Tennessee	33,286	0	0	0	0	33,286
Texas	82,184	0	0	0	0	82,184
Utah	3,470	381	0	7	0	3,857
Vermont	1,282	0	0	0	0	1,282
Virgin Islands	419	0	0	0	0	419
Virginia	19,458	0	0	0	0	19,458
Washington	16,915	1,299	0	0	0	18,214
West Virginia	8,809	0	0	0	0	8,809
Wisconsin	18,685	527	0	1	0	19,214
Wyoming	83	5	0	0	0	88
Total	\$1,388,442	\$119,006	\$0	\$447	\$0	\$1,507,895

Notes: These dollars represent submitted claims to USAC for the time period January 2015 through December 2015, including true-ups reported through August 2016. Tribal Lifeline subscribers also receive General support which is currently \$9.25 per subscriber. This amount is not included in Tribal support. For Link Up, the payments and subscribers for the two categories of recipients are kept separate.

Source: Universal Service Administrative Company.

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

	ILECs	CETCs	Total	Percent CETCs
1998	\$464,207	\$260	\$464,467	0.1 %
1999	479,353	796	480,150	0.2
2000	517,901	1,128	519,029	0.2
2001	585,790	3,572	589,362	0.6
2002	663,009	13,097	676,106	1.9
2003	693,378	22,994	716,373	3.2
2004	723,580	39,349	762,929	5.2
2005	734,344	67,631	801,975	8.4
2006	707,135	99,933	807,068	12.4
2007	701,990	121,240	823,230	14.7
2008	674,805	147,017	821,823	17.9
2009	642,644	370,208	1,012,852	36.6
2010	595,604	722,211	1,317,815	54.8
2011	532,227	1,248,774	1,781,001	70.1
2012	450,656	1,732,931	2,183,588	79.4
2013	296,046	1,494,311	1,790,356	83.5
2014	224,067	1,406,310	1,630,377	86.3
2015	165,768	1,342,127	1,507,895	89.0

Notes: ILECs is an abbreviation for incumbent local exchange carriers. CETCs is an abbreviation for competitive eligible telecommunications carriers. CETCs include both wireless and wireline carriers. Data for 2009-2014 were updated to account for true-ups.

Source: Universal Service Administrative Company.

Table 2.5
Low-Income Claims by Program and by Affiliated Entities: 2015
(in Thousands of Dollars)

Rank	Affiliated Entity Name ¹	Lifeline Support	Link Up Support	Total Low-Income Support	Percent of Total	Cumulative Percent of Total
1	América Móvil ²	\$444,795	\$0	\$444,795	29.5%	29.5%
2	SoftBank Corp. ³	235,834	0	235,834	15.6	45.1
3	I-Wireless, LLC	98,015	0	98,015	6.5	51.6
4	Budget PrePay, Inc.	91,902	1	91,903	6.1	57.7
5	Telrite Corporation	89,892	0	89,892	6.0	63.7
6	AT&T Inc.	81,468	1	81,469	5.4	69.1
7	Assist Wireless, LLC	38,816	0	38,816	2.6	71.7
8	Quadrant Holdings Group LLC	37,169	0	37,169	2.5	74.1
9	Verizon Communications Inc.	33,879	0	33,879	2.2	76.4
10	TSC Acquisition Corporation	32,081	0	32,081	2.1	78.5
11	KDDI America, Inc.	29,487	0	29,487	2.0	80.5
12	Smith Bagley, Inc.	25,151	333	25,484	1.7	82.2
13	American Broadband and Telecommunications Company	23,659	0	23,659	1.6	83.7
14	Nexus Communications, Inc.	20,946	0	20,946	1.4	85.1
15	Blue Jay Wireless, LLC	18,983	0	18,983	1.3	86.4
16	TerraCom/YourTel America	18,925	0	18,925	1.3	87.6
17	Easy Telephone Services Company	17,043	0	17,043	1.1	88.8
18	CenturyLink, Inc.	16,695	0	16,695	1.1	89.9
19	Boomerang Wireless, LLC	13,008	0	13,008	0.9	90.7
20	True Wireless, LLC	11,838	0	11,838	0.8	91.5
21	General Communication, Inc.	11,514	3	11,517	0.8	92.3
22	Amvensys Telecom Holdings	10,106	0	10,106	0.7	92.9
23	Cox Communications, Inc.	8,598	0	8,598	0.6	93.5
24	PR Wireless LLC	7,265	0	7,265	0.5	94.0
25	Global Connection Inc. of America	7,051	0	7,051	0.5	94.5
26	Atlantic Tele-Network	6,296	0	6,296	0.4	94.9
27	PlatinumTel Communications LLC	5,996	0	5,996	0.4	95.3
28	Frontier Communications Corporation	5,981	1	5,981	0.4	95.7
29	Windstream Holdings, Inc.	4,657	0	4,657	0.3	96.0
30	Head Start Telecom, Inc.	4,247	0	4,247	0.3	96.3
	Other Carriers	56,153	109	56,262	3.7	100.0
	All Affiliated Entities	\$1,507,448	\$447	\$1,507,895	100.0%	100.0%

¹ Affiliated entities include all commonly-controlled or commonly-owned affiliates as of year-end 2015.

² América Móvil owns TracFone Wireless.

³ SoftBank Corp. owns Sprint and Virgin Mobile USA.

Source: Universal Service Administrative Company.

Table 2.6
Total Monthly Lifeline Subscribers Since January 2012

Month	Tribal Lifeline Subscribers	Non-Tribal Lifeline Subscribers	Total Lifeline Subscribers
January-12	549,258	15,908,572	16,457,830
February-12	575,873	16,238,084	16,813,957
March-12	662,135	16,534,059	17,196,194
April-12	722,144	16,848,841	17,570,985
May-12	782,131	17,317,869	18,100,000
June-12	815,448	17,320,169	18,135,617
July-12	846,735	16,864,804	17,711,539
August-12	843,864	16,515,337	17,359,201
September-12	842,986	16,233,523	17,076,509
October-12	831,010	16,019,555	16,850,565
November-12	858,420	15,780,413	16,638,833
December-12	804,793	15,276,872	16,081,665
January-13	687,500	13,303,601	13,991,101
February-13	717,866	12,944,960	13,662,826
March-13	740,955	13,107,807	13,848,762
April-13	717,869	13,230,187	13,948,056
May-13	708,103	13,602,507	14,310,610
June-13	695,699	14,016,431	14,712,130
July-13	628,293	14,220,097	14,848,390
August-13	611,198	14,445,164	15,056,362
September-13	576,375	14,522,851	15,099,226
October-13	578,042	14,498,009	15,076,051
November-13	577,593	14,291,510	14,869,103
December-13	555,234	13,825,919	14,381,153
January-14	534,297	13,440,283	13,974,580
February-14	534,514	13,500,445	14,034,959
March-14	521,050	13,451,544	13,972,594
April-14	518,193	13,353,226	13,871,419
May-14	496,124	13,195,365	13,691,489
June-14	497,065	12,960,680	13,457,745
July-14	501,207	12,768,490	13,269,697
August-14	499,504	12,760,942	13,260,446
September-14	491,794	12,850,377	13,342,171
October-14	490,887	12,738,688	13,229,575
November-14	481,829	12,377,023	12,858,852
December-14	463,711	11,937,157	12,400,868
January-15	435,069	11,185,755	11,620,824
February-15	428,917	11,232,909	11,661,826
March-15	426,328	11,365,933	11,792,261
April-15	421,320	11,528,461	11,949,781
May-15	412,426	11,807,905	12,220,331
June-15	417,384	12,025,179	12,442,563
July-15	421,869	12,323,680	12,745,549
August-15	415,091	12,544,240	12,959,331
September-15	416,913	12,709,537	13,126,450
October-15	411,406	12,815,696	13,227,102
November-15	405,301	12,786,852	13,192,153
December-15	407,253	12,756,858	13,164,111
January-16	390,984	12,320,964	12,711,948
February-16	391,732	12,293,281	12,685,013
March-16	397,651	12,369,189	12,766,840
April-16	372,256	12,494,820	12,867,076
May-16	375,290	12,533,397	12,908,687
June-16	299,965	12,473,765	12,773,730

Source: Universal Service Administration Company.

Table 2.7
Lifeline De-Enrollments or Scheduled to be De-Enrolled by State in 2015
(in Thousands)

State	As a result of ETC recertification attempt ¹	As a result of attempt by State Administrator, ETC Access to Eligibility Data, or USAC ²	Total
Alabama	23	0	23
Alaska	7	0	8
American Samoa	0	0	0
Arizona	32	5	37
Arkansas	7	1	9
California	0	508	508
Colorado	12	0	12
Connecticut	6	1	7
Delaware	1	2	2
District of Columbia	1	2	3
Florida	31	23	54
Georgia	24	9	33
Guam	0	0	0
Hawaii	5	0	5
Idaho	3	0	3
Illinois	32	7	39
Indiana	14	3	17
Iowa	6	0	7
Kansas	5	1	6
Kentucky	20	0	20
Louisiana	17	2	19
Maine	5	0	5
Maryland	5	3	8
Massachusetts	10	11	21
Michigan	35	8	44
Minnesota	10	1	11
Mississippi	7	6	13
Missouri	30	2	32
Montana	1	0	2
Nebraska	0	1	1
Nevada	14	2	16
New Hampshire	1	1	1
New Jersey	4	5	9
New Mexico	5	2	7
New York	18	20	38
North Carolina	13	9	22
North Dakota	2	0	2
Northern Mariana Islands	0	0	0
Ohio	40	12	52
Oklahoma	33	5	39
Oregon	0	4	4
Pennsylvania	21	4	25
Puerto Rico	60	11	71
Rhode Island	5	1	6
South Carolina	16	7	22
South Dakota	1	0	1
Tennessee	9	5	14
Texas	25	19	43
Utah	2	1	3
Vermont	0	0	0
Virgin Islands	1	0	1
Virginia	7	7	14
Washington	6	4	9
West Virginia	6	0	6
Wisconsin	5	4	8
Wyoming	0	0	0
Total	643	721	1,364

¹ Column J of FCC Form 555.

² Column L of FCC Form 555.

Source: Universal Service Administrative Company.

Note: Table 2.7 has been updated for 2013 and 2014. See supplemental table S.2.5. 2013 and 2014 Updated Table 2.7.xlsx.

Table 2.8
Non-Facilities Based Low-Income Subscribers by State in 2015
(in Thousands)

State	Non-Tribal			Tribal			All		
	Facilities-Based		Total	Facilities-Based		Total	Facilities-Based		Total
	No	Yes		No	Yes		No	Yes	
Alabama	133	62	195	#	#	#	134	62	195
Alaska	0	0	0	0	35	35	0	35	35
American Samoa	0	1	1	0	0	0	0	1	1
Arizona	197	40	238	6	50	55	203	90	293
Arkansas	88	19	107	0	#	#	88	19	107
California	1,093	972	2,065	0	#	#	1,093	972	2,065
Colorado	61	23	84	#	0	#	62	23	84
Connecticut	82	34	116	0	0	0	82	34	116
Delaware	24	8	32	0	0	0	24	8	32
District of Columbia	36	6	42	0	0	0	36	6	42
Florida	603	249	852	0	0	0	603	249	852
Georgia	395	60	454	0	0	0	395	60	454
Guam	0	2	2	0	0	0	0	2	2
Hawaii	19	3	22	2	#	2	20	3	24
Idaho	2	11	13	0	1	1	2	12	14
Illinois	472	13	484	0	0	0	472	13	484
Indiana	141	55	196	0	0	0	141	55	196
Iowa	34	23	57	#	0	#	34	23	57
Kansas	43	16	59	#	#	#	43	16	59
Kentucky	188	49	238	0	0	0	188	49	238
Louisiana	197	32	229	0	0	0	197	32	229
Maine	28	15	43	0	#	#	28	15	43
Maryland	156	40	196	0	0	0	156	40	196
Massachusetts	138	89	227	0	0	0	138	89	227
Michigan	458	80	537	#	#	#	458	80	538
Minnesota	55	37	92	3	#	4	58	37	95
Mississippi	117	31	148	#	#	#	117	31	148
Missouri	127	28	155	0	#	#	127	28	155
Montana	0	3	3	0	4	4	0	6	6
Nebraska	1	8	8	0	#	#	1	8	9
Nevada	91	31	122	1	1	2	92	32	124
New Hampshire	13	5	18	0	0	0	13	5	18
New Jersey	125	119	244	0	0	0	125	119	244
New Mexico	27	28	55	0	30	30	27	58	85
New York	482	410	892	0	#	#	482	410	892
North Carolina	200	122	322	0	#	#	200	122	322
North Dakota	1	5	5	2	2	3	2	6	9
Northern Mariana Islands	0	2	2	0	0	0	0	2	2
Ohio	414	122	536	0	0	0	414	122	536
Oklahoma	#	1	1	223	50	273	223	51	274
Oregon	20	47	67	0	#	#	20	47	67
Pennsylvania	331	122	453	0	0	0	331	122	453
Puerto Rico	417	137	554	0	0	0	417	137	554
Rhode Island	32	18	50	0	0	0	32	18	50
South Carolina	166	48	214	#	#	#	166	48	215
South Dakota	2	4	6	0	1	1	2	5	7
Tennessee	218	82	300	0	0	0	218	82	300
Texas	495	245	740	0	#	#	495	245	741
Utah	20	10	30	#	1	1	20	11	31
Vermont	#	11	12	0	0	0	#	11	12
Virgin Islands	2	2	4	0	0	0	2	2	4
Virginia	113	62	175	0	0	0	113	62	175
Washington	68	80	148	2	2	4	70	82	152
West Virginia	69	10	79	0	0	0	69	10	79
Wisconsin	135	31	167	1	1	2	136	32	168
Wyoming	#	1	1	0	#	#	#	1	1
Total	8,328	3,763	12,090	239	179	418	8,567	3,942	12,509

Indicates > 0 subscribers and less than 500

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

Source: Universal Service Administrative Company.

Section 3 – Connect America Fund (High Cost)

Overview – Connect America Fund Program

The federal universal service Connect America Fund program (formerly High-Cost Support) is designed to ensure that consumers in rural, insular, and high-cost areas have access to modern communications networks capable of providing voice and broadband service, both fixed and mobile, at rates that are reasonably comparable to those in urban areas. The program fulfills this universal service goal by allowing eligible carriers who serve these areas to recover some of their costs from the federal Universal Service Fund (USF). As in the 2015 Report, all support dollar values in these tables are for claims¹ as opposed to disbursements.² Claim dollars are subject to true-ups. For example, claims for support in 2012 may be true-up in 2014; such a true-up is reflected in the year supported (2012), not in the year the true-up was disbursed (2014). Additional information regarding the Connect America Fund program is available in the Appendix. Data on changes in local exchange carriers and High-Cost ILEC support data by study area are available at <http://www.fcc.gov/encyclopedia/neca-usac-data-0>. Please note that the information provided in this report is based upon the program rules through June 30, 2016.

¹ A “claim” is the distribution of funds *in support of a specified time period*. These funds were distributed in that period and *possibly a later time period*. The disbursements in later time periods are the result of true-ups to resolve differences between initial payments and disbursements necessitated by revisions to supporting data made at that later date. *Claims are positive values with the possible exceptions of CAF Intercarrier Compensation (CAF ICC) support and Connect America Cost Model (CACM) support*. CAF ICC claims can be negative when a study area’s actual access recovery charge revenues in the prior two years substantially exceed the forecasted amount. Some CACM initial claims were negative as a result of true-ups when Frozen High Cost support exceeded CACM support.

² A “disbursement” is the distribution of funds *in a specified time period*. These funds were distributed in support of high-cost mechanisms in that period and *possibly in support of earlier time periods*. The disbursements in support of earlier time periods are the result of true-ups to resolve differences between initial payments and disbursements necessitated by revisions to supporting data. *It is possible for disbursements to be negative*, thus requiring the recipient to return dollars to the high-cost fund. Some negative disbursements are penalties (see the file “HC Penalties” in the Supplementary Material). Penalties are not included in claims.

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

	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	High-Cost Model Support	Interstate Common Line Support	Interstate Access Support	Local Switching Support	ILEC Frozen High-Cost Support	CETC Frozen High-Cost Support	Remote Alaska Support ¹	CAF Phase I	CAF ICC	Mobility Fund Phase I Support	Connect America Cost Model Phase II	Remote Broadband Experiments	Total Support
2009	\$1,398	\$51	\$5	\$329	\$1,594	\$566	\$389	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,332
2010	1,320	77	7	311	1,631	549	383	0	0	0	0	0	0	0	0	4,278
2011	1,213	97	9	291	1,640	521	370	0	0	0	0	0	0	0	0	4,142
2012	791	48	6	0	845	0	110	1,037	889	78	114	213	0	0	0	4,134
2013	767	31	6	0	871	0	0	1,034	629	79	307	430	74	0	0	4,229
2014	745	28	5	0	894	0	0	1,035	525	79	17	427	4	0	0	3,759
2015	718	20	5	0	920	0	0	641	514	78	0	421	16	1,159	8	4,500
2016*	696	12	5	0	938	0	0	167	510	79	0	428	26	1,662	3	4,527

Notes: Detail may not appear to add to totals due to rounding. CAF ICC stands for Connect America Fund Intercarrier Compensation Support. CAF Phase I is Phase I Incremental Support.

* Estimate for 2016 extrapolated from claims through June 2016.

¹ The 2012-2016 Remote Alaska Support is composed of competitive ETC support in Alaska that was frozen on a per-line basis in the USF/ICC Transformation Order. Further details are provided in Table 3.2. It also includes competitive ETC support for Standing Rock.

Source: Universal Service Administrative Company.

Table 3.2
High-Cost Support Fund Claim History - ILECs and CETCs
(in Millions of Dollars)

	Companies	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	High-Cost Model Support	Interstate Common Line Support	Interstate Access Support	Local Switching Support	Frozen High-Cost Support	Remote Alaska Support ¹	CAF Phase I	CAF ICC	Mobility Fund Phase I Support	Connect America Cost Model Phase II	Remote Broadband Experiments	Total Support
2009	ILEC	\$1,007.3	\$37.7	\$4.9	\$169.3	\$1,069.4	\$456.1	\$288.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3,033.0
	CETC	390.6	13.6	0.5	159.4	524.2	109.9	100.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,298.5
	Total	1,397.9	51.4	5.3	328.6	1,593.6	565.9	388.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,331.5
2010	ILEC	961.9	60.0	5.7	155.7	1,110.1	455.2	287.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3,035.9
	CETC	358.2	17.1	1.2	155.0	521.1	94.2	95.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,242.1
	Total	1,320.1	77.1	6.9	310.7	1,631.2	549.3	382.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,278.0
2011	ILEC	905.8	76.2	6.5	144.6	1,131.4	440.7	280.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,985.8
	CETC	307.4	21.0	2.5	146.4	508.3	80.5	89.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,155.7
	Total	1,213.2	97.2	8.9	291.0	1,639.8	521.2	370.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,141.5
2012	ILEC	791.3	48.4	6.3	0.0	845.4	0.0	109.8	1,037.5	0.0	114.3	213.2	0.0	0.0	0.0	3,166.1
	CETC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	888.9	78.5	0.0	0.0	0.0	0.0	0.0	967.4
	Total	791.3	48.4	6.3	0.0	845.4	0.0	109.8	1,926.4	78.5	114.3	213.2	0.0	0.0	0.0	4,133.6
2013	ILEC	767.3	31.4	6.1	0.0	870.8	0.0	0.0	1,033.8	0.0	307.2	430.2	0.0	0.0	0.0	3,446.9
	CETC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	629.2	78.7	0.0	0.0	74.1	0.0	0.0	782.0
	Total	767.3	31.4	6.1	0.0	870.8	0.0	0.0	1,663.0	78.7	307.2	430.2	74.1	0.0	0.0	4,229.0
2014	ILEC	745.4	28.2	5.5	0.0	894.2	0.0	0.0	1,034.8	0.0	16.7	426.5	0.0	0.0	0.0	3,151.3
	CETC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	525.5	78.6	0.0	0.0	3.6	0.0	0.0	607.6
	Total	745.4	28.2	5.5	0.0	894.2	0.0	0.0	1,560.3	78.6	16.7	426.5	3.6	0.0	0.0	3,758.9
2015	ILEC	717.9	20.4	4.6	0.0	920.1	0.0	0.0	641.1	0.0	0.0	420.8	0.0	1,159.2	0.0	3,884.1
	CETC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	513.9	78.2	0.0	0.0	16.0	0.0	7.7	615.8
	Total	717.9	20.4	4.6	0.0	920.1	0.0	0.0	1,155.0	78.2	0.0	420.8	16.0	1,159.2	7.7	4,499.9
2016*	ILEC	696.4	12.1	4.9	0.0	938.4	0.0	0.0	166.8	0.0	0.0	428.0	0.0	1,661.9	0.0	3,908.3
	CETC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	510.4	79.3	0.0	0.0	26.1	0.0	3.0	618.9
	Total	696.4	12.1	4.9	0.0	938.4	0.0	0.0	677.2	79.3	0.0	428.0	26.1	1,661.9	3.0	4,527.2

Notes: Details may not appear to add to totals due to rounding. ILECs are incumbent local exchange carriers. CAF ICC refers to Connect America Fund Inter-carrier Compensation Support. CAF Phase I is Phase I Incremental Support. CETCs are competitive eligible telecommunications carriers.

* Estimate for 2016 extrapolated from claims through June 2016.

¹ The 2012-2015 Remote Alaska Support is support that was frozen on a per-line basis for 11 study areas in Alaska and one in North Dakota. In 2011, the Commission decided that carriers in these areas would have their support per line frozen. Consequently, the sum of CETC support for these mechanisms in each of the years 2012-2015 represents their per-line frozen high-cost support. Details on support for these areas may be found in the Supplementary Material file "High Cost Claims – by Study Area".

Source: Universal Service Administrative Company.

Table 3.3
High-Cost Support Fund Claim History - Price Cap and Rate-of-Return ILECs
(in Millions of Dollars)

	Regulatory Type	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	High-Cost Model Support	Interstate Common Line Support	Interstate Access Support	Local Switching Support	Frozen High-Cost Support	CAF Phase I	CAF ICC	Connect America Cost Model Phase II	Total Support
2009	Price Cap	\$209.1	\$8.4	\$0.2	\$169.3	\$292.8	\$456.1	\$48.1	\$0.0	\$0.0	\$0.0	\$0.0	\$1,184.0
	Rate-of-Return	798.2	29.3	4.7	0.0	776.6	0.0	240.2	0.0	0.0	0.0	0.0	1,849.1
	Total	1,007.3	37.7	4.9	169.3	1,069.4	456.1	288.4	0.0	0.0	0.0	0.0	3,033.0
2010	Price Cap	145.1	10.0	0.0	155.7	283.0	455.2	59.5	0.0	0.0	0.0	0.0	1,108.4
	Rate-of-Return	816.8	50.0	5.7	0.0	827.1	0.0	227.8	0.0	0.0	0.0	0.0	1,927.4
	Total	961.9	60.0	5.7	155.7	1,110.1	455.2	287.3	0.0	0.0	0.0	0.0	3,035.9
2011	Price Cap	99.8	10.7	0.0	144.6	272.6	440.7	60.8	0.0	0.0	0.0	0.0	1,029.2
	Rate-of-Return	806.0	65.5	6.5	0.0	858.9	0.0	219.7	0.0	0.0	0.0	0.0	1,956.6
	Total	905.8	76.2	6.5	144.6	1,131.4	440.7	280.5	0.0	0.0	0.0	0.0	2,985.8
2012	Price Cap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,037.5	114.3	44.2	0.0	1,196.0
	Rate-of-Return	791.3	48.4	6.3	0.0	845.4	0.0	109.8	0.0	0.0	169.0	0.0	1,970.1
	Total	791.3	48.4	6.3	0.0	845.4	0.0	109.8	1,037.5	114.3	213.2	0.0	3,166.1
2013	Price Cap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,033.8	307.2	86.2	0.0	1,427.3
	Rate-of-Return	767.3	31.4	6.1	0.0	870.8	0.0	0.0	0.0	0.0	344.0	0.0	2,019.6
	Total	767.3	31.4	6.1	0.0	870.8	0.0	0.0	1,033.8	307.2	430.2	0.0	3,446.9
2014	Price Cap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,034.8	16.7	68.1	0.0	1,119.6
	Rate-of-Return	745.4	28.2	5.5	0.0	894.2	0.0	0.0	0.0	0.0	358.4	0.0	2,031.7
	Total	745.4	28.2	5.5	0.0	894.2	0.0	0.0	1,034.8	16.7	426.5	0.0	3,151.3
2015	Price Cap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	641.1	0.0	44.4	1,159.2	1,844.7
	Rate-of-Return	717.9	20.4	4.6	0.0	920.1	0.0	0.0	0.0	0.0	376.4	0.0	2,039.4
	Total	717.9	20.4	4.6	0.0	920.1	0.0	0.0	641.1	0.0	420.8	1,159.2	3,884.1
2016*	Price Cap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	166.8	0.0	38.2	1,661.9	1,866.8
	Rate-of-Return	696.4	12.1	4.9	0.0	938.4	0.0	0.0	0.0	0.0	389.8	0.0	2,041.5
	Total	696.4	12.1	4.9	0.0	938.4	0.0	0.0	166.8	0.0	428.0	1,661.9	3,908.3

Notes: Details may not appear to add to totals due to rounding. ILECs are incumbent local exchange carriers. CAF ICC refers to Connect America Fund Inter-carrier Compensation Fund. CAF Phase I is Phase I Incremental Support. Price cap carriers include their Rate-of-Return affiliates. The designation of price cap versus Rate-of-Return carriers for 2009-2012 is based on their regulatory status in 2012.

* Estimate for 2016 extrapolated from claims through June 2016. Claims for CAF Phase I Incremental Support and Mobility Fund Phase I Support were not extrapolated.

Source: Universal Service Administrative Company.

Table 3.4
High-Cost Support Fund Claims - by Mechanism and State: 2015
(in Thousands of Dollars)

State	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	Interstate Common Line Support	Frozen High-Cost Support ¹	Remote Alaska Support*	CAF ICC	Mobility Fund Phase I Support	Connect America Cost Model Phase II	Rural Broadband Experiments	Total Support	CETC Share of Support
Alabama	\$8,610	\$404	\$0	\$14,767	\$31,126	\$0	\$11,608	\$0	\$20,539	\$0	\$87,054	5.8 %
Alaska	21,516	58	0	24,965	47,034	77,980	10,689	13,805	0	0	196,046	60.8
American Samoa	0	0	0	1,159	1,619	0	283	0	0	0	3,062	52.9
Arizona	23,308	281	0	15,236	13,383	0	6,010	0	15,455	0	73,672	7.1
Arkansas	17,547	429	0	16,197	25,412	0	10,224	0	46,040	0	115,850	2.5
California	24,765	165	0	21,248	23,961	0	3,011	0	61,291	0	134,441	0.0
Colorado	12,703	220	0	8,771	28,792	0	1,853	0	14,533	0	66,872	9.0
Connecticut	0	0	0	0	193	0	0	0	268	0	461	0.0
Delaware	0	0	0	0	228	0	0	0	0	0	228	0.0
District of Columbia	0	0	0	0	0	0	0	0	0	0	0	0.0
Florida	1,488	94	0	4,049	34,154	0	8,072	0	16,872	0	64,729	4.9
Georgia	17,707	1,179	0	29,798	18,384	0	16,267	0	35,137	0	118,472	0.2
Guam	0	0	0	5,930	5,405	0	110	0	0	0	11,445	47.2
Hawaii	3,483	29	0	1,915	6,312	0	2,714	0	3,276	0	17,730	29.1
Idaho	7,960	0	0	9,816	10,297	0	5,563	0	11,485	137	45,257	9.3
Illinois	16,403	817	0	20,530	17,923	0	10,250	0	40,883	1,600	108,407	9.4
Indiana	28,899	1,063	0	27,090	7,379	0	5,802	0	43,807	0	114,040	0.1
Iowa	25,701	3,104	216	42,477	35,559	0	17,889	0	47,671	2,067	174,686	18.7
Kansas	60,984	629	4,316	44,110	25,533	0	8,439	0	30,853	295	175,158	11.8
Kentucky	20,311	178	0	28,657	30,834	0	27,683	0	39,994	0	147,657	11.0
Louisiana	11,299	32	0	11,723	42,645	0	2,086	0	30,150	0	97,935	25.9
Maine	561	44	0	6,092	11,233	0	2,792	0	8,717	0	29,438	22.6
Maryland	0	0	0	1,046	2,303	0	191	0	0	0	3,540	0.0
Massachusetts	0	0	0	212	1,467	0	611	0	0	0	2,291	0.0
Michigan	3,756	0	0	10,656	9,450	0	6,019	0	55,470	0	85,352	5.2
Minnesota	22,140	1,760	0	41,683	10,844	0	18,686	0	80,404	85	175,603	0.8
Mississippi	4,492	30	0	7,088	138,131	0	6,217	0	29,985	0	185,944	47.0
Missouri	23,958	296	0	24,725	25,701	0	13,664	0	76,155	0	164,499	6.1
Montana	34,962	542	0	32,174	13,086	0	5,787	9	8,370	0	94,931	5.5
Nebraska	21,893	881	0	22,296	16,106	0	11,954	357	17,929	1,187	92,602	13.4
Nevada	3,325	0	0	5,226	4,224	0	2,373	0	3,016	0	18,165	6.8
New Hampshire	109	0	0	5,282	961	0	2,866	0	3,546	0	12,765	1.0
New Jersey	0	0	0	259	151	0	344	0	300	0	1,053	0.0
New Mexico	30,819	338	0	19,132	12,147	0	5,325	690	12,621	0	81,072	6.8
New York	1,251	0	0	10,663	14,619	0	6,366	0	16,443	0	49,341	3.0

Table 3.4
High-Cost Support Fund Claims - by Mechanism and State: 2015
(in Thousands of Dollars)

State	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	Interstate Common Line Support	Frozen High-Cost Support ¹	Remote Alaska Support*	CAF ICC	Mobility Fund Phase I Support	Connect America Cost Model Phase II	Rural Broadband Experiments	Total Support	CETC Share of Support
North Carolina	3,882	728	0	23,889	19,629	0	16,617	0	15,028	0	79,774	2.2
North Dakota	25,763	749	21	37,224	25,945	146	11,312	351	5,423	433	107,366	24.8
Northern Mariana Island	0	0	0	0	980	0	0	0	2,229	0	3,209	18.1
Ohio	4,667	104	0	10,442	6,506	0	11,112	0	52,503	0	85,334	0.0
Oklahoma	35,218	40	0	37,610	33,732	0	17,620	0	5,097	80	129,397	20.2
Oregon	14,345	284	0	16,569	21,608	0	9,329	0	14,362	740	77,237	15.7
Pennsylvania	319	45	0	7,217	33,568	0	11,757	0	26,787	0	79,693	0.2
Puerto Rico	0	0	0	0	115,237	0	0	0	0	0	115,237	68.7
Rhode Island	0	0	0	0	30	0	0	0	0	0	30	0.0
South Carolina	20,305	1,254	0	47,661	7,402	0	19,205	0	12,606	0	108,434	1.5
South Dakota	29,951	704	0	33,475	2,411	44	12,829	756	8,517	0	88,688	2.9
Tennessee	9,240	681	0	33,498	9,132	0	10,425	0	26,615	0	89,591	0.8
Texas	78,535	2,197	0	63,269	41,887	0	13,050	0	71,241	1,111	271,290	4.0
Utah	4,596	41	0	13,973	1,466	0	4,833	0	3,064	0	27,973	0.3
Vermont	386	0	0	6,245	5,015	0	4,752	0	3,774	0	20,173	0.0
Virgin Islands	0	0	0	0	16,428	0	0	0	0	0	16,428	0.4
Virginia	1,129	0	0	10,386	42,400	0	18,678	0	9,862	4	82,459	1.8
Washington	5,333	40	0	9,288	33,544	0	6,644	0	22,516	0	77,364	23.9
West Virginia	1,418	81	0	3,307	20,712	0	1,978	0	25,768	0	53,264	16.3
Wisconsin	22,984	770	0	40,563	32,026	0	15,063	0	82,636	0	194,042	9.9
Wyoming	9,889	94	0	10,526	18,708	0	3,878	0	0	0	43,095	13.5
Total	\$717,913	\$20,383	\$4,553	\$920,115	\$1,154,965	\$78,170	\$420,830	\$15,968	\$1,159,240	\$7,739	\$4,499,876	13.7 %

Notes: CAF ICC refers to Connect America Fund Intercarrier Compensation Support. Remote Alaska Support also includes support to Standing Rock.

¹ Includes Phase I Frozen Support for price cap carriers and for competitive ETCs.

* The Remote Alaska Support consists of CETC support that was frozen on a per-line basis for 11 study areas in Alaska and for Standing Rock in North Dakota in the USF/ICC Transformation Order.

Source: Universal Service Administrative Company.

Table 3.5
Annual High-Cost Claims by Year-End 2015 Affiliate Structure: 2013-2015
(in Thousands of Dollars)

Rank	Affiliate Name ¹	2013	2014	2015	Total	CETC Share of 3-Year Total ²
1	AT&T Inc.	\$465,891	\$347,001	\$614,947	\$1,427,839	36.7 %
2	CenturyLink, Inc.	399,214	347,934	573,366	1,320,515	0.0
3	Frontier Communications Corporation	230,598	162,233	318,221	711,052	0.0
4	Windstream Holdings, Inc.	229,806	163,623	232,016	625,446	0.0
5	Telephone and Data Systems, Inc.	207,306	180,489	178,676	566,470	55.4
6	Verizon Communications Inc. ³	140,517	133,801	116,342	390,659	18.5
7	América Móvil	99,151	63,077	63,077	225,306	38.0
8	General Communication, Inc.	53,310	54,710	83,100	191,119	89.5
9	Telapex, Inc. ⁴	61,241	51,987	51,572	164,801	88.8
10	FairPoint Communications, Inc.	45,929	43,800	51,996	141,724	0.0
11	Consolidated Communications, Inc.	36,704	39,587	38,987	115,278	0.0
12	Alaska Communications Systems Holdings, Inc.	40,681	38,935	24,404	104,020	43.0
13	Rural Telephone Service/Golden Belt	37,376	31,442	27,753	96,571	37.0
14	Deutsche Telekom AG	34,902	21,473	20,887	77,263	100.0
15	Smithville Holding Company, Inc.	24,960	24,533	23,428	72,921	0.0

¹ These responses refer to “affiliate name” rather than “holding company” so as to include all entities under common ownership or control, to the extent this information is readily available to the Commission. In most cases, the “affiliate name” is reported by the entity or entities in FCC Form 477. Carriers appear on this list if they are in the top 10 for any of the presented years.

² In the *USF/ICC Transformation Order*, the Commission eliminated the rule providing identical support to competitive ETCs, determining the rule did not provide an “appropriate level of support for the efficient deployment of mobile services in areas that do not support a private business case for mobile voice and broadband.” *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17666, 17851-59, para. 502 (2011), *aff’d In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014). The Commission, however, transitioned the elimination of that support over five years, beginning on July 1, 2012. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17853, para. 513. This phase down of support for competitive ETCs was halted at 40 percent on June 30, 2014 under the terms adopted in the *USF/ICC Transformation Order* because the Mobility Fund Phase II is not operational. See *id.* at 17832, para. 519.

³ Verizon Wireless and Sprint Nextel, in separate transactions in 2008, each committed to phase down their CETC high-cost universal service support in 20 percent increments over five years, beginning in 2009. These commitments were not implemented until the Commission released an Order on August 31, 2010 providing guidance to the Universal Service Administrative Company regarding the methodology to achieve those commitments. *High-Cost Universal Service Support, Federal-State Joint Board on Universal Service, Request for Review of Decision of Universal Service Administrator by Corr Wireless Communications, LLC*, WC Docket No. 05-337, CC Docket No. 96-45, Order and Notice of Proposed Rulemaking, 25 FCC Rcd 12854 (2010). To the extent that Verizon Wireless received support prior to the August 31, 2010 Order that should have been surrendered under its commitment, USAC reclaimed that support in 2010 and 2011.

⁴ Telapex, Inc. owns C Spire Wireless.

Source: Universal Service Administrative Company.

Table 3.6
High-Cost Support Fund Claims by Affiliate: 2015 (in Thousands of Dollars)

Rank	Affiliate Name ¹	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	Interstate Access Support	CAF ICC	CAF Phase 1 Frozen	CETC Frozen High-Cost Support	Remote Alaska Support	Mobility Fund Phase I Support	Connect America Cost Model Phase II	Total Support	CETC Share of Total Support ²
1	AT&T Inc.	\$0	\$0	\$0	\$0	\$0	\$101,190	\$160,562	\$0	\$0	\$353,195	\$614,947	26.1 %
2	CenturyLink, Inc.	0	0	0	0	0	209,331	0	0	0	364,035	573,366	0.0
3	Frontier Communications Corporation	0	0	0	0	0	64,889	0	0	0	253,332	318,221	0.0
4	Windstream Holdings, Inc.	0	0	0	0	35,536	52,344	42	0	0	144,094	232,016	0.0
5	Telephone and Data Systems, Inc.	2,396	644	0	50,685	29,467	0	95,483	0	0	0	178,676	53.4
6	Verizon Communications Inc.	0	0	0	0	0	94,435	21,907	0	0	0	116,342	18.8
7	General Communication, Inc.	1,550	0	0	3,061	2,778	0	10,291	51,615	13,805	0	83,100	91.1
8	América Móvil	0	0	0	0	0	36,054	27,023	0	0	0	63,077	42.8
9	FairPoint Communications, Inc.	0	0	0	0	4,491	23,438	0	0	0	24,067	51,996	0.0
10	Telapex, Inc.	1,671	0	0	2,454	1,541	0	45,906	0	0	0	51,572	89.0
11	Consolidated Communications, Inc.	0	0	0	0	4,387	21,368	0	0	0	13,232	38,987	0.0
12	Rural Telephone Service/Golden Belt	7,254	0	1,982	5,949	1,274	0	11,295	0	0	0	27,753	40.7
13	Golden West Telecommunications Cooperative, Inc.	9,906	33	0	11,654	3,205	0	0	0	0	0	24,798	0.0
14	Triangle Telephone Cooperative Assn., Inc.	13,861	425	0	9,321	847	0	0	0	0	0	24,455	0.0
15	Alaska Communications Systems Holdings, Inc.	0	0	0	0	0	19,683	996	3,725	0	0	24,404	19.3
16	Smithville Holding Company, Inc.	13,113	855	0	8,411	1,049	0	0	0	0	0	23,428	0.0
17	Valley Telephone Cooperative, Inc.	12,397	172	0	7,681	1,367	0	28	0	0	0	21,645	0.1
18	Deutsche Telekom AG	0	0	0	0	0	0	20,887	0	0	0	20,887	100.0
19	Nemont Telephone Cooperative, Inc.	7,750	0	0	7,757	1,218	0	4,114	0	9	0	20,848	19.8
20	Copper Valley Telephone Cooperative	7,504	0	0	3,175	462	0	0	9,129	0	0	20,271	45.0
21	Comporium, Inc.	2,706	428	0	11,453	4,481	0	0	0	0	0	19,068	0.0
22	Hargray Communications Group, Inc.	5,621	0	0	8,984	4,374	0	0	0	0	0	18,980	0.0
23	Lumos Networks Corp.	625	0	0	3,230	14,238	0	740	0	0	0	18,833	3.9
24	Farmers Telephone Cooperative, Inc. (SC)	5,142	0	0	8,059	3,485	0	1,579	0	0	0	18,265	8.6
25	Pioneer Telephone Cooperative (OK)	0	0	0	5,252	4,090	0	8,870	0	0	0	18,213	48.7

Notes: Details may not add to totals due to rounding. CAF ICC refers to Connect America Fund Inter-carrier Compensation Support. Remote Alaska Support also includes support provided to Standing Rock.

¹ These responses refer to "affiliate name" rather than "holding company" so as to include all entities under common ownership or control, to the extent this information is readily available to the Commission. In most cases, the "affiliate name" is reported by the entity or entities in FCC Form 477.

² In the *USF/ICC Transformation Order*, the Commission eliminated the rule providing identical support to competitive ETCs, determining the rule did not provide an "appropriate level of support for the efficient deployment of mobile services in areas that do not support a private business case for mobile voice and broadband." *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17666, 17851-59, para. 502 (2011), *aff'd In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014). The Commission, however, transitioned the elimination of that support over five years, beginning on July 1, 2012. See *USF/ICC Transformation Order*, 26 FCC Rcd at 17853, para. 513. This phase down of support for competitive ETCs was halted at 40 percent on June 30, 2014 under the terms adopted in the *USF/ICC Transformation Order* because the Mobility Fund Phase II is not operational. See *id.* at 17832, para. 519.

Source: Universal Service Administrative Company.

Section 4 – E-rate (Schools and Libraries)

Overview – Schools and Libraries Program

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

Eligible schools, school districts and libraries may apply individually or as part of a consortium. Funding may be requested under two categories of service: category one services to a school or library (telecommunications, telecommunications services and Internet access), and category two services that deliver Internet access within schools and libraries (internal connections, basic maintenance of internal connections, and managed internal broadband services). Discounts for support depend on the level of poverty and whether the school or library is located in an urban or rural area. The discounts range from 20 percent to 90 percent of the costs of eligible services. E-rate program funding is based on demand up to an annual Commission-established cap of about \$3.9 billion.

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

Additional information about the Schools and Library program can be found on the Commission's website at <http://www.fcc.gov/encyclopedia/e-rate-schools-libraries-usf-program> and on USAC's website at <http://www.usac.org/sl/>.

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

Year	Funding Commitments						Funding Disbursements					
	Total Commitments	Libraries ¹	Schools	School Districts	Statewide Contract ²	Other Consortia	Total Disbursements	Libraries ¹	Schools	School Districts	Statewide Contract ²	Other Consortia
1998	\$1,699,125	\$65,988	\$110,701	\$1,288,421	\$0	\$234,015	\$1,399,098	\$49,883	\$83,343	\$1,069,783	\$0	\$196,090
1999	2,148,000	66,172	180,741	1,598,385	0	302,701	1,650,004	47,457	140,131	1,265,896	0	196,521
2000	2,078,777	65,879	110,857	1,692,230	0	209,810	1,647,014	43,566	88,514	1,384,113	0	130,821
2001	2,176,505	57,824	164,598	1,739,594	0	214,490	1,695,758	41,940	117,487	1,400,664	0	135,668
2002	2,122,797	62,941	167,229	1,642,692	0	249,935	1,598,198	42,697	106,197	1,286,705	0	162,599
2003	2,531,004	63,310	200,601	2,005,192	0	261,902	1,940,112	44,325	136,108	1,587,204	0	172,475
2004	2,036,269	54,303	158,787	1,568,231	0	254,947	1,536,420	39,723	107,113	1,210,052	0	179,532
2005	2,022,058	54,435	153,398	1,599,242	0	214,983	1,625,555	48,598	111,132	1,287,991	0	177,833
2006	1,951,888	59,711	129,449	1,502,064	0	260,664	1,568,995	46,138	96,295	1,222,975	0	203,587
2007	2,359,180	60,628	174,825	1,880,403	0	243,324	1,955,781	47,964	135,913	1,563,637	0	208,267
2008	2,384,128	75,771	151,848	1,897,118	0	259,391	1,915,581	58,114	113,552	1,522,479	0	221,436
2009	2,820,130	84,709	195,655	2,269,756	0	270,010	2,305,057	69,214	151,255	1,858,098	0	226,490
2010	3,004,552	91,104	211,037	2,413,044	0	289,367	2,419,868	71,890	156,900	1,950,956	0	240,121
2011	2,674,495	90,910	218,072	2,045,344	0	320,170	2,119,954	73,149	161,634	1,636,183	0	248,988
2012	2,960,119	96,432	289,148	2,267,904	12,130	294,505	2,244,959	77,667	204,669	1,717,752	7,941	236,929
2013	2,166,289	91,327	136,499	1,632,802	20,209	285,452	1,716,412	75,068	96,617	1,307,021	10,164	227,541
2014	2,286,474	94,359	158,894	1,715,298	34,867	283,056	1,788,693	77,710	112,682	1,363,175	18,023	217,104
2015	3,310,615	107,828	191,749	2,666,133	22,349	322,556	1,350,063	44,025	82,059	1,132,264	2,968	88,747

Note: Activity through June 30, 2016. Funding Year 2016 commitment and disbursement information have not been displayed because only a small fraction of commitments (and no disbursements) have been made for that funding year. A substantial amount of commitments and disbursements for funding year 2016 will be made. Also, because of the appeals process, funding commitments and disbursements can be made after the end of the program year. Disbursements may also continue beyond the end of the program year in the event of delayed internal connections installation. Other adjustments and corrections may also be made.

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

² Starting January 2011, applicants could designate their consortium as a statewide entity if the application encompassed all public schools, private schools and/or all public libraries in the state. See http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-10-2218A1.pdf. In 2016, applicants filing as a consortium, school district, and library system could designate their sub-type as a statewide entity. These applicant's commitments and disbursements are included within their primary applicant type column and are not included in the Statewide Contract column.

Source: Universal Service Administrative Company

Table 4.1 is the 2016 version of Table 2.19 of the 2013 USF Monitoring Report. Funds by service type have not been included in this version, but can be found in the Supplementary Material file "SL Funds - by Service Type, State, and Funding Year".

Table 4.2
Schools and Libraries Funding Commitments and Disbursements from Program Inception through June 30, 2016
by State and Applicant Type
(in Thousands of Dollars)

State/Territory	Library/Library Consortium		Schools		School Districts		Statewide Contracts		Other Consortium		Totals	
	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed
Alabama	\$13,911	\$11,137	\$20,263	\$15,018	\$601,531	\$500,775	\$86	\$1	\$100,623	\$73,075	\$736,415	\$600,006
Alaska	10,137	7,674	4,258	3,239	514,380	429,348	0	0	17,664	13,278	546,440	453,539
American Samoa	0	0	0	0	0	0	0	0	38,344	30,204	38,344	30,204
Arizona	20,098	21,922	149,257	100,281	901,050	669,728	0	0	27,630	16,871	1,098,035	808,801
Arkansas	5,836	4,708	8,808	6,652	256,529	189,331	25,836	10,277	153,014	94,147	450,024	305,116
California	107,014	71,109	287,203	198,394	5,719,977	4,188,413	106	51	247,745	155,511	6,362,045	4,613,477
Colorado	13,987	9,832	21,215	15,400	349,904	272,260	0	0	22,964	16,139	408,070	313,632
Connecticut	5,477	3,746	48,952	35,139	273,366	221,419	0	0	112,590	93,789	440,384	354,093
Delaware	1,385	1,185	3,373	2,298	16,979	13,993	2,246	39	17,157	14,536	41,140	32,050
District of Columbia	8,816	4,540	26,828	17,176	169,090	112,441	0	0	17,947	8,589	222,681	142,745
Florida	57,910	44,362	159,438	119,465	1,153,853	911,214	0	0	98,901	82,172	1,470,102	1,157,213
Georgia	80,974	72,569	37,807	30,822	1,134,176	903,992	4,411	311	183,421	160,100	1,440,788	1,167,794
Guam	134	22	259	137	27,020	19,900	0	0	0	0	27,413	20,059
Hawaii	2,760	1,557	59,513	28,858	37,292	19,702	3,128	478	1,071	629	103,764	51,224
Idaho	4,471	3,568	7,517	4,909	98,278	75,503	0	0	23,193	13,811	133,459	97,791
Illinois	40,390	29,778	144,065	106,968	1,623,697	1,205,904	0	0	74,073	53,086	1,882,226	1,395,737
Indiana	53,971	41,681	37,371	26,738	466,100	363,312	0	0	94,682	42,828	652,124	474,559
Iowa	4,589	3,066	14,675	10,592	154,345	111,275	0	0	72,022	61,455	245,632	186,838
Kansas	11,727	9,216	10,231	7,342	262,470	207,088	0	0	23,973	19,298	308,401	242,944
Kentucky	16,475	12,436	6,831	4,403	555,989	407,710	0	0	116,929	83,389	696,223	507,938
Louisiana	63,445	52,398	54,806	39,799	747,796	616,659	0	0	33,862	24,701	899,909	733,557
Maine	1,524	1,109	15,849	11,577	62,485	43,499	0	0	56,673	50,870	136,532	107,056
Maryland	18,405	13,164	28,394	18,918	327,324	249,480	0	0	32,223	24,258	406,346	305,821
Massachusetts	43,237	30,162	61,611	45,256	449,534	352,511	11	0	51,058	25,227	605,451	453,157
Michigan	33,862	26,669	57,648	38,398	824,201	618,764	0	0	134,167	101,408	1,049,878	785,239
Minnesota	26,028	20,389	40,762	27,617	299,929	225,523	0	0	125,595	107,930	492,315	381,460
Mississippi	31,206	23,387	20,185	14,350	468,692	353,941	144	83	102,725	75,741	622,952	467,503
Missouri	21,343	17,407	46,561	34,166	502,911	394,819	0	0	203,781	136,168	774,596	582,560
Montana	1,619	1,144	4,776	3,598	76,309	62,204	0	0	609	450	83,313	67,397
Nebraska	4,243	3,370	7,880	6,060	121,250	105,251	0	0	31,814	29,002	165,187	143,683
Nevada	4,044	2,734	6,574	4,621	116,943	80,740	0	0	0	0	127,560	88,094
New Hampshire	387	217	8,473	5,288	37,379	26,926	0	0	1,443	1,080	47,682	33,511
New Jersey	28,311	19,950	140,134	97,397	905,187	652,332	0	0	16,775	11,037	1,090,407	780,716
New Mexico	5,986	3,683	79,561	55,269	503,162	384,738	0	0	96,824	37,939	685,532	481,629
New York	197,172	135,134	587,139	423,801	2,340,963	2,006,035	0	0	558,044	411,067	3,683,319	2,976,037
North Carolina	29,923	24,803	44,353	34,567	951,107	791,859	23,724	11,911	49,606	38,695	1,098,714	901,835
North Dakota	200	151	9,790	7,404	25,258	19,320	0	0	39,567	33,646	74,815	60,521
Northern Mariana Isl.	201	138	162	143	18,109	14,348	0	0	0	0	18,472	14,629
Ohio	52,594	41,893	134,595	97,488	1,120,355	859,839	0	0	86,474	70,983	1,394,018	1,070,203
Oklahoma	36,266	28,667	47,457	33,897	850,945	666,950	0	0	13,749	5,005	948,416	734,519
Oregon	5,884	3,620	11,946	8,492	221,823	175,681	0	0	39,063	24,020	278,715	211,814
Pennsylvania	44,506	36,861	167,992	112,731	1,014,649	837,433	0	0	142,889	122,030	1,370,036	1,109,056
Puerto Rico	68,084	36,111	94,235	61,114	229,441	135,967	0	0	115,312	57,743	507,072	290,935
Rhode Island	2,091	1,717	8,200	6,262	73,037	55,842	19	8	42,418	39,322	125,764	103,152
South Carolina	6,513	4,503	26,012	17,058	512,055	386,104	0	0	261,810	225,591	806,390	633,255
South Dakota	382	185	21,256	15,588	41,911	31,350	2,745	2,553	36,735	22,675	103,029	72,352
Tennessee	18,532	13,380	17,916	14,453	717,351	532,803	0	0	226,184	184,114	979,984	744,750
Texas	57,069	38,597	189,472	137,718	3,934,585	3,005,159	0	0	181,117	126,213	4,362,243	3,307,687
Utah	2,313	1,111	4,493	2,564	96,447	75,913	0	0	235,561	129,832	338,813	209,420
Vermont	1,078	652	13,876	8,912	28,362	20,250	0	0	1,940	1,388	45,255	31,202
Virgin Islands	355	160	13,849	10,565	10,665	9,412	3,854	1,836	59,985	54,351	88,708	76,324
Virginia	31,087	24,534	25,912	20,797	539,621	437,544	0	0	13,720	12,231	610,340	495,105
Washington	28,523	22,161	19,353	14,968	404,968	307,199	78	78	83,652	64,342	536,575	408,748
West Virginia	4,212	3,256	3,774	2,177	180,286	128,636	19,735	9,876	53,345	39,112	261,352	183,057
Wisconsin	15,538	11,148	44,770	31,389	332,778	259,738	0	0	169,316	125,860	562,402	428,135
Wyoming	664	451	4,692	3,371	26,144	18,871	3,432	1,591	29,409	23,809	64,341	48,093
Totals	\$1,346,892	\$999,129	\$3,112,321	\$2,201,600	\$33,429,991	\$25,766,947	\$89,554	\$39,095	\$4,771,388	\$3,470,750	\$42,750,147	\$32,477,521

Note: Activity through June 30, 2016. Unlike in Table 4.1, all commitments and disbursements have been included, including those in funding year 2016. Because of the appeals process, funding commitments and disbursements can be made after the end of the program year. Also, disbursements may continue beyond the end of the program year in the event of delayed internal connections installation. Other adjustments and corrections may also be made.

Source: Universal Service Administrative Company

Section 5 – Rural Health Care

Overview – Rural Health Care Program

The Rural Health Care Program provides funding to eligible health care providers (HCPs) for broadband and telecommunications services necessary for the provision of health care. The goal of the program is to improve the quality of health care available to patients in rural communities by ensuring that eligible HCPs have access to broadband and telecommunications services. Funding for the Rural Health Care Program is capped at \$400 million annually and is administered by USAC under the direction of the FCC.

During the time period reported upon in this report, the Rural Health Care Program provided funding through three programs: the Healthcare Connect Fund, the Rural Health Care Pilot Program, and the Telecommunications Program. In 2012, the Commission created the new Healthcare Connect Fund to reform, expand, and modernize the Rural Health Care Program. The Healthcare Connect Fund provides support for high-capacity broadband connectivity to eligible health care providers (HCPs), and encourages the formation of state and regional broadband HCP networks. The Commission established the Rural Health Care Pilot Program in September 2006 to provide funding for state or regional broadband networks designed to bring the benefits of telehealth and telemedicine services to areas of the country where the need for those benefits was most acute. Many of the lessons learned during the Pilot Program were used in establishing the Healthcare Connect Fund. While new participants are no longer accepted into the Pilot Program, there is some remaining funding already committed that existing participants are using. Established in 1997, the Telecommunications Program ensures that eligible rural HCPs pay no more than their urban counterparts for telecommunications services.

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

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

Funding year	Telecommunications and Internet Access Program		Pilot		Healthcare Connect		Totals	
	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed
1998	3,388	3,369	0	0	0	0	3,388	3,369
1999	4,653	4,291	0	0	0	0	4,653	4,291
2000	10,711	10,196	0	0	0	0	10,711	10,196
2001	19,582	18,477	0	0	0	0	19,582	18,477
2002	23,344	21,366	0	0	0	0	23,344	21,366
2003	27,908	25,726	0	0	0	0	27,908	25,726
2004	32,124	30,959	0	0	0	0	32,124	30,959
2005	40,742	39,999	0	0	0	0	40,742	39,999
2006	45,984	45,074	0	0	0	0	45,984	45,074
2007	56,210	54,818	467	467	0	0	56,677	55,285
2008	67,765	66,661	14,734	14,300	0	0	82,499	80,962
2009	72,828	71,439	350,957	275,330	0	0	423,785	346,769
2010	92,042	87,208	0	0	0	0	92,042	87,208
2011	104,360	101,272	0	0	0	0	104,360	101,272
2012	117,189	116,889	0	0	0	0	117,189	116,889
2013	133,412	128,469	0	0	48,701	38,831	182,112	167,299
2014	137,167	134,126	0	0	102,461	63,128	239,628	197,254
2015	169,395	98,502	0	0	84,428	14,968	253,824	113,469

Note: Activity through June 30, 2016. Funding Year 2016 commitment and disbursement information have not been displayed because only a small fraction of commitments (and no disbursements) have been made for that funding year. A substantial amount of commitments and disbursements for funding year 2016 will be made. Also, because of the appeals process, funding commitments and disbursements can be made after the end of the program year. Disbursements may also continue beyond the end of the program year in the event of delayed internal connections installation. Other adjustments and corrections may also be made.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division, Wireline Competition Bureau, FCC.

Table 5.2
Rural Health Care Funding Commitments and Disbursements from Program Inception through June 30, 2016
by State and Program
(in Thousands of Dollars)

State	Telecommunications and Internet Access Program		Pilot		Healthcare Connect		Totals	
	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed
Alabama	8,259	6,868	2,749	2,746	2,558	1,357	13,566	10,972
Alaska	612,883	550,939	1,882	209	753	313	615,518	551,460
American Samoa	1,512	1,419	0	0	0	0	1,512	1,419
Arizona	24,788	21,445	7,506	5,187	1,374	576	33,668	27,208
Arkansas	16,776	14,395	4,218	4,132	12,265	7,583	33,259	26,110
California	44,046	40,796	22,903	11,136	27,087	14,784	94,036	66,716
Colorado	3,498	3,117	10,870	10,702	13,594	8,091	27,962	21,910
Connecticut	12	12	0	0	907	148	920	160
Delaware	1	1	0	0	0	0	1	1
District of Columbia	18	0	0	0	0	0	18	0
Florida	5,200	4,573	82	47	5,050	1,886	10,332	6,506
Georgia	30,482	28,145	2,233	2,166	9,423	4,913	42,137	35,224
Guam	767	762	89	83	73	35	929	880
Hawaii	2,435	2,376	4,653	2,100	23	19	7,111	4,494
Idaho	5,726	4,740	0	0	1,474	875	7,200	5,616
Illinois	17,502	16,243	21,071	21,070	5,766	2,549	44,339	39,862
Indiana	9,431	6,992	15,458	12,416	5,585	2,200	30,474	21,608
Iowa	6,635	6,304	17,368	17,291	8,408	3,678	32,412	27,273
Kansas	8,787	7,866	0	0	2,906	1,415	11,694	9,281
Kentucky	13,188	11,667	2,945	913	6,841	3,114	22,973	15,694
Louisiana	5,958	4,283	15,570	375	1,881	1,147	23,410	5,805
Maine	589	469	12,957	12,639	2,800	329	16,346	13,437
Maryland	156	128	0	0	412	219	568	347
Massachusetts	941	924	0	0	1,279	821	2,220	1,744
Michigan	19,482	18,322	19,449	19,230	5,739	2,619	44,670	40,171
Minnesota	32,131	29,685	5,714	5,292	3,190	1,152	41,035	36,129
Mississippi	22,756	16,660	0	0	4,091	1,155	26,848	17,815
Missouri	11,248	9,345	2,538	2,193	6,709	3,491	20,495	15,029
Montana	10,692	10,307	15,413	14,572	660	262	26,765	25,142
Nebraska	20,205	19,144	18,010	18,010	3,058	762	41,274	37,915
Nevada	2,307	2,176	0	0	381	240	2,688	2,416
New Hampshire	234	221	6,400	6,335	490	295	7,124	6,851
New Jersey	0	0	0	0	0	0	0	0
New Mexico	9,786	8,872	11,742	8,929	5,369	4,683	26,897	22,484
New York	1,933	1,621	15,492	13,858	6,687	2,663	24,112	18,143
North Carolina	6,712	5,778	12,169	11,759	16,104	4,802	34,985	22,339
North Dakota	14,070	13,181	912	828	1,507	229	16,489	14,238
Northern Mariana Islands	43	21	46	44	6	0	94	65
Ohio	6,572	6,017	27,209	26,478	4,529	2,287	38,311	34,782
Oklahoma	26,796	23,178	0	0	11,376	5,324	38,173	28,503
Oregon	3,390	3,080	18,130	17,129	12,588	5,755	34,108	25,963
Pennsylvania	1,399	1,300	6,793	6,035	7,569	3,481	15,761	10,816
Puerto Rico	0	0	0	0	45	23	45	23
Rhode Island	0	0	0	0	0	0	0	0
South Carolina	666	536	8,763	8,282	5,846	3,725	15,276	12,544
South Dakota	10,496	10,269	4,585	4,482	3,240	2,516	18,321	17,268
Tennessee	10,992	8,484	6,834	0	1,853	926	19,679	9,411
Texas	54,182	41,808	15,503	0	7,074	3,757	76,759	45,565
Utah	8,456	8,118	8,815	7,886	1,461	58	18,732	16,061
Vermont	805	771	6,078	6,024	368	172	7,252	6,966
Virgin Islands	852	846	0	0	0	0	852	846
Virginia	20,682	16,567	2,709	563	4,941	2,709	28,332	19,839
Washington	2,213	2,043	118	117	2,012	987	4,344	3,148
West Virginia	3,065	2,634	7,070	5,751	1,685	880	11,821	9,266
Wisconsin	65,287	60,349	2,312	2,303	10,601	5,554	78,200	68,206
Wyoming	3,150	3,043	797	782	603	368	4,549	4,193
Totals	1,190,193	1,058,840	366,158	290,098	240,243	116,926	1,796,594	1,465,863

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division, Wireline Competition Bureau, FCC.

Section 6 – Subscribership & Penetration

Overview – Subscribership & Penetration: Voice & Internet

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

To provide regular, high-quality data on telephone penetration, the Commission requested that the Census Bureau include questions on telephone availability as part of its CPS, which monitors demographic trends between decennial censuses. The CPS is a staggered panel survey in which the people residing at particular addresses are included in the survey for four consecutive months in one year and the same four months in the following year. Use of the CPS has several advantages: it is conducted every month by an independent and expert agency, the sample is large, and the questions are consistent. Thus, changes in the results can be compared over time with a reasonable degree of confidence.

In addition to the CPS, the ACS also provides data for calculating a measure of telephone penetration. The ACS has replaced the decennial census long form and thus also provides a wealth of data and large sample sizes, though on a less frequent basis than the CPS. Whereas the CPS reports household penetration, the ACS follows the design of past decennial censuses and reports telephone penetration for occupied housing units. In this chapter, penetration measures from the CPS, the ACS, and decennial censuses (prior to the ACS) are reported as complements to each other.¹

While the ACS provides telephone penetration data, the ACS now also provides data for calculating high-speed Internet penetration rates. Specifically, the ACS for the first time in 2013 asked whether households have access to the Internet. The ACS asks, "At this house, apartment, or mobile home – do you or any member of this household access the Internet?" Statistics based on 2015 data from the ACS on high-speed Internet penetration has been incorporated into this report. Since the ACS is conducted throughout the year, a 1-year average is calculated using the data.

¹ Penetration statistics derived from the CPS cannot be directly compared with the penetration estimates based on the responses to the long forms of the 1990 and 2000 decennial censuses or the ACS. This is due to differences in sampling techniques and survey methodologies as well as differences in the context in which the questions are asked. For example, the 2013 ACS reported 97.7% of all occupied housing units in the United States had telephone service available, whereas the March 2013 CPS data showed a household penetration rate of 96.0%. This difference is statistically significant and may indicate that the CPS value is on the low side and the ACS value is on the high side, with the most probable value lying somewhere in between.

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

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

The CPS data are based on a nationwide sample of about 50 to 60 thousand households in the 50 states and the District of Columbia. The CPS does not cover outlying areas that are not states, such as Puerto Rico, Guam, American Samoa, the Virgin Islands, and the Northern Mariana Islands.² The ACS form is sent to approximately 250 thousand addresses per month, for a total of about 3 million addresses per year. The ACS covers the states, the District of Columbia, and Puerto Rico.

² Annual data for Puerto Rico have been available from the ACS starting with 2005. The percentage of occupied housing units with voice service for the last five years of available data are reported in Table 6.6.

Table 6.1
Household Voice Subscribership in the United States, 1983 - 2016

Month	Year	Households (millions)	Households with a Telephone in Unit (millions)	Percentage with Telephone in Unit	Households without a Telephone in Unit (millions)	Percentage without Telephone in Unit
November	1983	85.8	78.4	91.4	7.4	8.6
November	1984	87.4	79.9	91.4	7.5	8.6
November	1985	88.8	81.6	91.9	7.2	8.1
November	1986	89.9	83.1	92.4	6.8	7.6
November	1987	91.3	84.3	92.3	7.0	7.7
November	1988	92.6	85.7	92.5	6.9	7.5
November	1989	93.9	87.3	93.0	6.6	7.0
November	1990	94.7	88.4	93.3	6.3	6.7
November	1991	95.7	89.4	93.4	6.3	6.6
November	1992	97.0	91.0	93.8	6.0	6.2
November	1993	98.8	93.0	94.2	5.8	5.8
November	1994	99.8	93.7	93.8	6.2	6.2
November	1995	100.4	94.2	93.9	6.2	6.1
November	1996	101.3	95.1	93.9	6.2	6.1
November	1997	102.8	96.5	93.8	6.3	6.2
November	1998	104.1	98.0	94.2	6.1	5.8
November	1999	105.4	99.1	94.1	6.3	5.9
November	2000	106.5	100.2	94.1	6.3	5.9
November	2001	107.7	102.2	94.9	5.5	5.1
November	2002	109.0	104.0	95.3	5.1	4.7
November	2003	113.1	107.1	94.7	6.0	5.3
November	2004	113.8	106.4	93.5	7.4	6.5
November	2005	115.2	107.0	92.9	8.2	7.1
November	2006	116.4	108.8	93.4	7.6	6.6
March	2007	117.1	110.8	94.6	6.4	5.4
July	2007	117.7	111.7	95.0	5.9	5.0
November	2007	118.2	112.2	94.9	6.0	5.1
March	2008	117.8	112.2	95.2	5.6	4.8
July	2008	118.0	112.6	95.4	5.5	4.6
November	2008	118.6	112.7	95.0	5.9	5.0
March	2009	118.4	113.2	95.6	5.2	4.4
July	2009	118.4	113.3	95.7	5.1	4.3
November	2009	119.2	114.0	95.7	5.1	4.3
March	2010	118.3	113.6	96.0	4.7	4.0
July	2010	118.3	113.5	96.0	4.8	4.0
November	2010	119.4	114.0	95.5	5.4	4.5
March	2011	119.8	114.9	95.9	4.9	4.1
July	2011	119.3	114.1	95.6	5.2	4.4
November	2011	119.7	114.4	95.6	5.3	4.4
March	2012	121.9	117.0	96.0	4.9	4.0
July	2012	121.7	117.0	96.1	4.7	3.9
November	2012	122.0	116.9	95.8	5.1	4.2
March	2013	123.3	118.3	96.0	5.0	4.0
July	2013	123.1	118.3	96.1	4.8	3.9
November	2013	123.7	118.4	95.7	5.3	4.3
March	2014	124.2	119.5	96.3	4.7	3.7
July	2014	123.9	119.0	96.0	4.9	4.0
November	2014	124.8	119.9	96.1	4.9	3.9
March	2015	125.5	121.1	96.5	4.4	3.5
July	2015	125.8	121.7	96.3	4.1	3.5
November	2015	126.1	122.2	96.3	3.9	3.1
March	2016	127.2	123.4	97.0	3.8	3.0
July	2016	127.0	123.3	97.1	3.7	2.9

Source: United States Census Bureau, Current Population Survey

Table 6.2
Household Voice Penetration by Income, 1997-2016

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

Source: U.S. Census Bureau, Current Population Survey (March CPS Supplement). Note: Income groups classified by 1984 dollars. Total penetration rates may differ slightly from those in Table 6.1 due to sampling differences between the March CPS and the March CPS Supplement.

Table 6.3
Nominal Dollar Equivalent by Year
(in 1984 Dollars)

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

Note: All numbers based on CPI non-adjusted series, March 1984 base of 102.6

**Table 6.4
Historical Voice Penetration Estimates**

	Percentage of Occupied Housing Units with Telephone Service ¹	Percentage of Households with Telephone Service ²
1920	35.0	
1930	40.9	
1940	36.9	
1950	61.8	
1960	78.3	
1970	90.5	
1980	92.9	
1990	94.8	93.3
2000	97.6	94.4
2001	96.9	94.9
2002	96.6	95.3
2003	96.2	95.1
2004	95.7	93.8
2005	94.8	93.1
2006	94.1	93.6
2007	94.6	94.8
2008 ³	98.2	95.2
2009	97.7	95.7
2010	97.5	95.8
2011	97.4	95.7
2012	97.4	95.9
2013	97.7	95.9
2014	97.6	96.1
2015	97.4	96.3
2016	NA ⁴	96.4

¹ Housing Unit penetration statistics are from the U.S. Census Bureau's *Historical Statistics of the United States, Colonial Times to 1970*, Part 2, page 783 (1920 - 1970); the decennial censuses (1980 - 2000); and the Census Bureau's American Community Survey (ACS) 1-year estimates (2001 - 2016).

² Household penetration data (1990 - 2016) are annual averages from the U.S. Census based on the Current Population Survey. For 2016, July CPS data are used.

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

⁴ ACS statistics for 2016 are not available.

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

Characteristic	2013	2014	2015	2016
<i>Persons in Household</i>				
1	94.0	94.2	94.6	94.7
2 - 3	96.7	96.8	96.9	97.1
4 - 5	96.8	97.1	97.4	97.3
6 +	95.8	96.4	96.9	96.1
<i>Age of Householder</i>				
15 - 24 Yrs Old	93.8	94.6	95.5	94.9
25 - 54 Yrs Old	95.6	95.9	96.2	96.3
55 - 59 Yrs Old	96.6	96.5	96.9	96.9
60 - 64 Yrs Old	96.4	96.4	96.7	97.0
65 - 69 Yrs Old	97.1	97.1	97.1	97.0
70 - 99 Yrs Old	96.6	96.6	96.2	96.4
<i>Race of Householder</i>				
White	96.4	96.6	96.8	96.8
Black	93.0	93.7	94.1	94.7
Hispanic Origin	93.1	93.5	94.7	94.6
Total United States	95.9	96.1	96.3	96.4

Source: U.S. Census Bureau, Current Population Survey. Note that 2012 to 2015 values are annual averages. For 2016, values are July 2016 figures since complete 2016 figures were unavailable at the time of publication.

Table 6.6
Voice Penetration by State, 2011 - 2015
(Percentage of Occupied Housing Units with Voice Service)

	2011	2012	2013	2014	2015
Alabama	97.2	97.3	97.4	97.4	97.2
Alaska	98.1	97.7	98.0	98.1	97.3
Arizona	97.0	97.2	97.3	97.5	97.4
Arkansas	96.6	96.2	97.2	97.3	96.4
California	97.9	97.9	98.0	97.9	97.8
Colorado	97.5	97.7	97.7	97.9	97.9
Connecticut	98.5	98.5	98.6	98.5	98.5
Delaware	98.2	97.8	98.1	97.9	98.3
District of Columbia	96.7	97.0	97.2	97.6	97.2
Florida	96.6	96.5	97.0	97.1	97.1
Georgia	96.4	96.0	97.6	97.3	97.3
Hawaii	97.4	97.4	97.7	97.7	97.7
Idaho	96.5	97.1	97.1	97.3	97.3
Illinois	97.7	97.7	97.7	97.4	97.6
Indiana	96.6	96.7	97.4	97.5	97.4
Iowa	96.9	97.4	97.9	97.6	97.5
Kansas	97.6	97.3	97.4	97.4	97.1
Kentucky	96.9	96.8	97.2	97.1	97.3
Louisiana	97.2	97.4	97.3	97.0	97.2
Maine	98.2	98.2	97.6	98.1	97.6
Maryland	97.5	97.8	98.1	97.6	97.7
Massachusetts	98.3	98.4	98.4	98.2	98.1
Michigan	97.0	97.2	97.4	97.6	97.4
Minnesota	98.0	98.0	98.1	97.9	97.3
Mississippi	96.9	97.2	96.8	97.2	97.0
Missouri	97.3	97.1	97.6	97.1	97.2
Montana	97.1	97.4	96.9	97.0	97.0
Nebraska	97.8	97.6	97.5	97.7	97.3
Nevada	97.8	97.5	97.9	96.5	97.2
New Hampshire	98.2	98.0	97.9	98.3	98.3
New Jersey	97.6	98.2	98.5	98.5	97.8
New Mexico	94.9	96.5	96.8	97.2	96.6
New York	97.2	97.5	98.0	97.8	97.9
North Carolina	97.5	97.6	97.8	97.7	97.6
North Dakota	98.1	97.3	97.8	98.1	96.9
Ohio	97.1	96.8	97.2	97.3	97.3
Oklahoma	97.5	97.7	97.5	97.1	97.0
Oregon	97.2	97.5	97.6	97.6	97.3
Pennsylvania	97.8	98.0	98.0	98.2	98.0
Rhode Island	97.5	97.9	98.3	97.8	98.1
South Carolina	97.2	97.3	97.7	97.6	97.0
South Dakota	97.3	97.2	97.5	97.2	96.7
Tennessee	97.1	97.3	97.6	97.5	97.6
Texas	97.2	97.4	97.7	97.7	97.4
Utah	97.6	97.6	97.9	98.0	97.7
Vermont	98.2	98.6	98.1	98.1	97.9
Virginia	97.5	97.6	98.2	98.1	97.6
Washington	97.9	97.4	97.9	97.6	97.5
West Virginia	96.0	96.5	97.0	96.9	97.3
Wisconsin	97.7	97.7	97.9	97.7	97.3
Wyoming	97.8	97.7	98.1	97.9	97.4
Total United States	97.4	97.4	97.7	97.6	97.4
Puerto Rico	93.8	94.2	93.8	94.3	95.5

Source: U.S. Census Bureau, American Community Survey. U.S. Total does not include Puerto Rico.

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

	1984	1996	2000	2007	2015
Alabama	88.4	92.2	91.9	91.8	95.9
Alaska	86.5	94.4	94.3	96.5	97.5
Arizona	86.9	93.1	93.9	92.9	95.7
Arkansas	86.6	86.9	88.6	92.0	93.7
California	92.5	95.0	95.8	96.5	95.6
Colorado	93.2	95.5	96.3	96.8	97.5
Connecticut	95.5	97.5	96.4	96.6	97.8
Delaware	94.3	96.1	96.3	94.9	94.6
District of Columbia	94.9	93.0	93.2	91.6	96.8
Florida	88.7	93.1	92.1	93.6	94.8
Georgia	86.2	89.7	91.1	92.6	95.5
Hawaii	93.5	94.8	94.7	96.0	94.6
Idaho	90.7	92.9	93.9	96.4	96.9
Illinois	94.2	93.0	91.5	94.1	96.4
Indiana	91.6	93.7	94.5	90.4	95.2
Iowa	96.2	96.6	96.2	97.0	98.4
Kansas	94.3	93.9	94.8	96.2	96.8
Kentucky	88.1	92.3	93.3	94.4	96.4
Louisiana	89.7	91.1	92.6	94.9	96.2
Maine	93.4	96.5	97.9	96.6	96.9
Maryland	95.7	96.7	95.0	95.5	97.1
Massachusetts	95.9	95.7	94.6	96.3	97.7
Michigan	92.8	95.0	95.0	95.0	97.0
Minnesota	95.8	97.1	97.4	97.9	98.9
Mississippi	82.4	87.5	89.2	90.5	96.0
Missouri	91.5	95.3	95.8	96.1	97.7
Montana	91.0	94.3	94.6	95.4	96.5
Nebraska	95.7	96.0	97.3	93.7	97.1
Nevada	90.4	93.5	94.0	95.2	95.7
New Hampshire	94.3	96.1	97.7	96.8	98.0
New Jersey	94.8	93.6	94.6	95.7	93.4
New Mexico	82.0	86.2	91.2	91.6	91.6
New York	91.8	93.4	95.1	93.4	95.6
North Carolina	88.3	93.5	93.9	94.5	96.3
North Dakota	94.6	96.3	95.8	98.0	98.2
Ohio	92.4	94.5	94.8	95.9	97.3
Oklahoma	90.3	91.3	91.2	94.9	96.6
Oregon	90.6	96.0	94.8	96.7	97.8
Pennsylvania	94.9	96.9	96.6	97.0	98.5
Rhode Island	93.6	95.7	94.9	95.3	96.9
South Carolina	83.7	91.3	93.2	90.6	95.5
South Dakota	93.2	93.3	94.3	97.2	97.6
Tennessee	88.5	94.0	95.5	93.2	92.6
Texas	88.4	91.0	93.5	93.5	96.9
Utah	92.5	96.7	95.9	96.8	96.9
Vermont	92.3	95.9	95.6	97.4	98.3
Virginia	93.1	94.9	95.4	95.3	97.4
Washington	93.0	94.5	94.9	96.8	98.4
West Virginia	87.7	92.9	94.0	94.5	95.8
Wisconsin	95.2	97.0	94.8	96.8	98.5
Wyoming	89.9	95.0	94.7	96.1	96.3
Total United States	91.6	93.9	94.4	94.8	96.3

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

Table 6.8
Household Voice Penetration by State and Income, 2016

	\$9,999 or Less	\$10,000 to \$19,999	\$19,999 to \$29,999	\$30,000 to \$39,999	\$40,000 or More	All Households
Alabama	92.3	96.6	96.4	97.9	98.4	95.9
Alaska	97.5	97.1	99.5	97.8	99.4	98.5
Arizona	92.8	96.8	96.3	96.6	96.6	95.8
Arkansas	92.3	94.3	96.0	95.9	96.6	94.7
California	93.3	95.1	95.5	96.6	97.7	95.9
Colorado	96.1	98.2	98.8	98.9	99.7	98.6
Connecticut	97.9	100.0	100.0	100.0	100.0	99.7
Delaware	93.2	92.8	89.7	94.4	97.9	94.0
District of Columbia	97.6	90.5	95.0	97.3	96.5	95.7
Florida	90.3	95.2	96.4	97.3	97.1	94.9
Georgia	93.0	96.2	95.7	96.5	95.5	95.2
Hawaii	87.9	93.1	96.6	97.0	94.7	93.8
Idaho	92.2	94.6	99.3	97.8	98.1	96.3
Illinois	93.2	96.7	96.2	97.8	98.3	96.6
Indiana	89.9	96.3	94.7	94.0	97.4	94.5
Iowa	96.8	98.7	100.0	100.0	99.1	98.9
Kansas	91.1	96.1	97.8	97.1	98.4	96.0
Kentucky	95.6	98.7	99.0	99.3	99.0	98.0
Louisiana	94.2	97.6	97.8	97.2	98.7	96.9
Maine	98.8	100.0	100.0	98.6	98.0	99.1
Maryland	91.9	95.8	95.2	98.2	97.9	96.2
Massachusetts	97.9	97.7	98.6	99.2	99.1	98.6
Michigan	96.9	95.6	97.9	97.4	99.3	97.5
Minnesota	97.7	99.6	95.9	99.4	99.8	98.7
Mississippi	93.1	96.5	96.3	98.0	96.8	95.6
Missouri	94.0	98.7	97.0	97.9	98.4	97.3
Montana	96.1	99.5	99.6	99.0	98.9	98.6
Nebraska	94.3	97.0	98.9	99.4	99.2	97.8
Nevada	90.7	94.6	97.4	95.9	98.2	95.3
New Hampshire	97.9	97.4	95.1	98.9	99.0	97.9
New Jersey	85.7	92.1	95.2	94.7	96.7	93.5
New Mexico	80.9	93.1	95.0	95.7	95.3	91.0
New York	95.2	95.9	96.5	97.3	98.1	96.7
North Carolina	93.8	96.8	97.9	97.6	98.6	96.9
North Dakota	95.2	98.9	99.6	100.0	98.4	98.3
Ohio	93.5	96.2	98.9	97.7	96.2	96.3
Oklahoma	92.5	98.4	97.5	98.7	98.0	96.7
Oregon	89.7	98.8	99.3	98.4	99.3	97.4
Pennsylvania	95.2	99.1	98.6	98.9	99.6	98.4
Rhode Island	87.1	96.5	97.9	98.9	96.9	95.1
South Carolina	90.9	93.4	96.4	97.3	97.8	94.6
South Dakota	89.5	98.1	96.0	99.3	99.6	96.4
Tennessee	91.1	92.3	95.9	92.2	93.3	92.8
Texas	93.6	95.6	96.9	98.7	97.6	96.4
Utah	93.7	96.8	96.9	96.8	98.8	97.0
Vermont	97.0	98.6	97.4	100.0	98.6	98.3
Virginia	95.7	99.1	98.9	99.5	99.9	98.7
Washington	87.3	99.8	98.4	98.9	99.4	97.5
West Virginia	94.3	96.4	99.1	99.1	98.9	97.0
Wisconsin	97.0	99.8	98.1	99.1	98.9	98.6
Wyoming	95.2	95.0	91.8	96.9	96.2	95.1
Total United States	93.2	96.4	97.0	97.6	98.0	96.4

Note: Income categories use 1984 dollars. For a conversion to current-year dollars, consult Table 6.2. Source: U.S. Census Bureau, Current Population Survey (March CPS Supplement).

Table 6.9
Internet Use by Selected Characteristics, 2015

	Percent with some Internet subscription	Percent with high-speed Internet subscription ¹
All Households	77.2	76.7
Household Income²		
Less than \$20,000	49.4	48.8
\$20,000 - \$74,999	74.9	74.2
\$75,000 or more	92.8	92.4
Metropolitan Status³		
Metropolitan Area	NA	78.4
Nonmetropolitan Area	NA	63.7
Urban / Rural Area³		
Rural Area	NA	78.1
Urban Area	NA	70.1
All Individuals	81.3	80.8
Age⁴		
Under 18	83.6	83.3
18 - 64	83.5	83.1
65 +	68.0	67.0
Race and Hispanic Origin⁵		
White alone, non-Hispanic	84.4	83.9
Black alone, non-Hispanic	70.1	69.7
Asian alone, non-Hispanic	91.7	91.3
Hispanic (of any race)	74.8	74.5
American Indian	65.9	65.3

¹ High-speed service includes all internet service other than dial-up.

² American FactFinder, Table S2801

³ American FactFinder, Table GCT2801

⁴ American FactFinder, Table B28005

⁵ American FactFinder, Table B28005

Table 6.10
High-Speed Internet Penetration for Households by State ¹

	2014		2015	
	Percent	Margin of Error	Percent	Margin of Error
Alabama	65.8	+/-0.5	68.3	+/-0.5
Alaska	81.4	+/-1.0	81.7	+/-1.3
Arizona	75.5	+/-0.4	78.1	+/-0.4
Arkansas	63.5	+/-0.8	64.2	+/-0.5
California	80.0	+/-0.2	81.3	+/-0.2
Colorado	81.2	+/-0.4	83.0	+/-0.4
Connecticut	80.5	+/-0.5	82.0	+/-0.6
Delaware	75.5	+/-1.2	77.4	+/-1.1
District of Columbia	73.4	+/-1.1	76.8	+/-1.4
Florida	75.8	+/-0.3	77.5	+/-0.2
Georgia	73.4	+/-0.3	74.8	+/-0.4
Hawaii	80.6	+/-0.8	82.2	+/-0.9
Idaho	73.6	+/-1.0	76.7	+/-0.9
Illinois	75.5	+/-0.3	76.9	+/-0.3
Indiana	71.4	+/-0.4	73.3	+/-0.4
Iowa	74.2	+/-0.5	75.0	+/-0.5
Kansas	74.5	+/-0.6	76.2	+/-0.5
Kentucky	68.9	+/-0.5	70.9	+/-0.6
Louisiana	66.6	+/-0.6	68.7	+/-0.6
Maine	74.9	+/-0.8	77.1	+/-0.7
Maryland	80.1	+/-0.4	81.4	+/-0.4
Massachusetts	80.5	+/-0.3	82.6	+/-0.4
Michigan	72.9	+/-0.3	74.4	+/-0.3
Minnesota	78.3	+/-0.4	79.5	+/-0.4
Mississippi	59.1	+/-0.8	61.0	+/-0.8
Missouri	71.6	+/-0.4	73.3	+/-0.4
Montana	72.9	+/-1.0	75.0	+/-1.0
Nebraska	74.8	+/-0.7	78.1	+/-0.5
Nevada	76.3	+/-0.7	79.0	+/-0.6
New Hampshire	82.1	+/-0.8	84.5	+/-0.7
New Jersey	80.9	+/-0.3	81.6	+/-0.3
New Mexico	67.5	+/-0.7	67.2	+/-0.9
New York	76.5	+/-0.2	77.8	+/-0.2
North Carolina	72.4	+/-0.4	74.1	+/-0.4
North Dakota	74.7	+/-1.2	76.3	+/-1.0
Ohio	73.9	+/-0.3	76.1	+/-0.2
Oklahoma	69.2	+/-0.4	70.8	+/-0.5
Oregon	78.9	+/-0.6	80.8	+/-0.4
Pennsylvania	73.9	+/-0.3	75.7	+/-0.3
Rhode Island	76.5	+/-1.1	78.2	+/-1.1
South Carolina	68.1	+/-0.6	69.9	+/-0.5
South Dakota	71.6	+/-1.1	75.3	+/-1.2
Tennessee	68.2	+/-0.5	70.2	+/-0.4
Texas	73.0	+/-0.2	74.3	+/-0.2
Utah	81.7	+/-0.6	83.1	+/-0.7
Vermont	76.3	+/-1.1	78.7	+/-1.1
Virginia	77.2	+/-0.4	78.6	+/-0.4
Washington	81.9	+/-0.4	83.9	+/-0.4
West Virginia	66.2	+/-0.8	69.8	+/-0.8
Wisconsin	75.3	+/-0.4	76.9	+/-0.4
Wyoming	76.1	+/-1.4	77.8	+/-1.3
Total United States	75.1	+/-0.1	76.7	+/-0.1
Puerto Rico	48.1	+/-0.6	51.8	+/-0.7

¹ High-speed internet service includes all internet service other than dial-up.

Source: Results based on the 2015 American Community Survey, available through the ACS FactFinder:

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_1YR_GCT2801.US01PR&prodType=table

Table 6.11
Residential Fixed Connections per Household by Speed Tier as of December 31, 2015
(Households and Subscribers in thousands)

	Households	At least 200 Kbps in any direction		10 Mbps Download 1 Mbps upload		25 Mbps Download 3 Mbps Upload		100 Mbps Download 10 Mbps Upload	
		Subscribers	Ratio	Subscribers	Ratio	Subscribers	Ratio	Subscribers	Ratio
Alabama	1,842	1,241	0.67	862	0.47	534	0.29	38	0.02
Alaska	252	202	0.80	135	0.54	*	*	*	*
American Samoa	10	*	*	0	0.00	0	0.00	0	0.00
Arizona	2,387	2,008	0.84	1,383	0.58	1,101	0.46	285	0.12
Arkansas	1,132	717	0.63	457	0.40	240	0.21	74	0.07
California	12,617	10,776	0.85	8,641	0.68	6,108	0.48	2,116	0.17
Colorado	1,998	1,771	0.89	1,183	0.59	1,099	0.55	*	*
Connecticut	1,356	1,161	0.86	992	0.73	789	0.58	211	0.16
Delaware	339	308	0.91	282	0.83	245	0.72	75	0.22
District of Columbia	267	228	0.85	198	0.74	186	0.70	*	*
Florida	7,218	6,577	0.91	5,389	0.75	3,790	0.53	817	0.11
Georgia	3,541	2,726	0.77	2,018	0.57	1,389	0.39	213	0.06
Guam	42	*	*	*	*	*	*	0	0.00
Hawaii	450	397	0.88	396	0.88	*	*	*	*
Idaho	585	459	0.78	223	0.38	164	0.28	9	0.02
Illinois	4,779	3,669	0.77	2,871	0.60	2,036	0.43	363	0.08
Indiana	2,492	1,828	0.73	1,304	0.52	825	0.33	138	0.06
Iowa	1,232	893	0.72	489	0.40	118	0.10	12	0.01
Kansas	1,112	851	0.77	606	0.54	360	0.32	128	0.12
Kentucky	1,702	1,203	0.71	769	0.45	274	0.16	19	0.01
Louisiana	1,719	1,189	0.69	895	0.52	577	0.34	122	0.07
Maine	553	460	0.83	318	0.58	109	0.20	*	*
Maryland	2,156	1,822	0.85	1,642	0.76	1,443	0.67	387	0.18
Massachusetts	2,538	2,232	0.88	2,026	0.80	1,875	0.74	608	0.24
Michigan	3,828	2,831	0.74	2,231	0.58	1,667	0.44	190	0.05
Minnesota	2,115	1,658	0.78	1,087	0.51	898	0.42	230	0.11
Mississippi	1,093	611	0.56	380	0.35	214	0.20	28	0.03
Missouri	2,361	1,702	0.72	1,170	0.50	700	0.30	173	0.07
Montana	408	314	0.77	173	0.42	*	*	*	*
Nebraska	731	550	0.75	357	0.49	239	0.33	34	0.05
Nevada	1,006	840	0.83	636	0.63	482	0.48	*	*
New Hampshire	520	465	0.89	381	0.73	299	0.58	*	*
New Jersey	3,188	2,839	0.89	2,620	0.82	2,489	0.78	579	0.18
New Mexico	765	536	0.70	261	0.34	234	0.31	79	0.10
New York	7,256	6,094	0.84	5,482	0.76	4,254	0.59	744	0.10
North Carolina	3,743	2,947	0.79	2,134	0.57	1,259	0.34	580	0.15
North Dakota	293	232	0.79	183	0.62	132	0.45	17	0.06
Northern Mariana Isl.	16	*	*	0	0.00	0	0.00	0	0.00
Ohio	4,570	3,537	0.77	2,544	0.56	1,055	0.23	47	0.01
Oklahoma	1,450	978	0.67	669	0.46	393	0.27	91	0.06
Oregon	1,523	1,257	0.83	910	0.60	775	0.51	*	*
Pennsylvania	4,958	3,899	0.79	2,987	0.60	2,612	0.53	775	0.16
Puerto Rico	1,241	*	*	*	*	*	*	*	*
Rhode Island	410	342	0.83	327	0.80	*	*	*	*
South Carolina	1,796	1,357	0.76	1,034	0.58	499	0.28	26	0.01
South Dakota	327	247	0.76	197	0.60	141	0.43	14	0.04
Tennessee	2,487	1,736	0.70	1,363	0.55	1,021	0.41	167	0.07
Texas	9,014	6,874	0.76	5,296	0.59	3,138	0.35	1,390	0.15
Utah	896	775	0.86	490	0.55	427	0.48	167	0.19
Vermont	257	231	0.90	153	0.60	123	0.48	47	0.18
Virgin Islands	43	*	*	*	*	*	*	0	0.00
Virginia	3,042	2,456	0.81	2,059	0.68	1,725	0.57	391	0.13
Washington	2,645	2,291	0.87	1,666	0.63	1,511	0.57	*	*
West Virginia	742	510	0.69	335	0.45	275	0.37	*	*
Wisconsin	2,293	1,756	0.77	1,268	0.55	668	0.29	12	0.01
Wyoming	226	176	0.78	114	0.50	96	0.42	*	*
Total	117,562	93,428	0.79	71,779	0.61	51,454	0.44	13,313	0.11

Mbps = megabits per second and kbps = kilobits per second. * = Data withheld to maintain firm confidentiality.

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

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

Table 6.12
Telephone Service, Internet Access, Telephone Expenses, and Internet Expenses in Low-Income Households, 2015

Group ¹	Telephone Service (%)	Internet Access (%)	Telephone Expenses (% after-tax income) ³		Cellular Phone Expenses (% after-tax income)		Internet Expenses (% after-tax income)	
			All ⁴	With Expenses Only	All	With Expenses Only	All	With Expenses Only
1	95.7	58.9	3.1	3.2	2.2	2.4	0.9	1.4
2	97.4	68.9	3.5	3.9	2.5	2.9	1	1.7
Statistically Significant Difference ²	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

¹ Group one contains occupied housing units where the household income is less than or equal to 135% of the 2015 Federal Poverty Guideline for the household. Group 2 contains occupied housing units where household income is greater than 135% of the Federal Poverty Guideline, but less than or equal to 200% of the Federal Poverty Guideline for that Household.

² The statistical significance of the difference between the percentages for Group 1 and Group 2 was determined using a Satterthwaite (Welch) t-test for unequal variances.

³ The telephone expenses include residential phone service, VOIP, phone cards, and cellular phone service.

⁴ The telephone and internet expenses are calculated for everyone in the income groups (All) and for only those who have telephone or internet expenses in the income groups (With Expenses Only).

Source: American Community Survey 2015 Public Use Microdata Sample (PUMS) data for telephone service and internet access and Consumer Expenditure Survey 2015 public-use microdata (PUMD) for telephone and internet expenses and after tax income

Section 7 – Price Indices

Overview – Price Indices

This section contains information on telephone price indices using data from the Consumer Price Index (CPI) maintained by the Bureau of Labor Statistics (BLS). The BLS collects information on telephone service as part of the CPI.¹ Monthly CPI data can be found on the Internet at www.bls.gov/cpi/. The monthly price indices represent prices sampled in the middle of the month.

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

The Producer Price Index (PPI), also published by BLS, continues to release sub-indices for telephone services. We no longer include them in this report because they have become less meaningful as the bundling of telephone services has become more common in the land-line telephone industry.²

¹ BLS publishes two sets of Consumer Price Indices. The CPI-U, used herein, is based on expenditures of all urban consumers. The CPI-W series is based on expenditures of urban wage earners and clerical workers.

² PPI data are available on the BLS website at www.bls.gov/ppi/.

Table 7.1
Long-Term Changes for Various Price Indices
(Average Annual Rates of Change)

	1969 - 2015	2005 - 2015
CPI All Items (SA0)	4.1	1.9
CPI All Services (SAS)	4.9	2.4
CPI Telephone Services (SEED)	1.8	0.5
CPI Major Categories:		
- Food & Beverages (SAF)	4.1	2.5
- Housing (SAH)	4.3	1.9
- Apparel (SAA)	1.7	0.5
- Transportation (SAT)	3.8	1.3
- Medical Care (SAM)	5.9	3.2
- Recreation (SAR)	*	0.5
- Other Goods & Services (SAG)	5.3	2.8
CPI Public Transportation (SETG)	4.9	1.9
CPI Utility (Piped) Gas Service (SEHF02)	5.3	-4.6
CPI Electricity (SEHF01)	4.3	4.0
CPI Water & Sewerage Maint. (SEHG01)	6.2	5.7
CPI Postage (SEEC01)	4.9	3.7

* Series not established until after 1969.

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

Source: Bureau of Labor Statistics.

Table 7.2
Annual Changes in CPI Telephone Services and All Items Indices

	All Goods and Services	Telephone Services
2000	3.4	-2.3
2001	1.6	1.3
2002	2.4	0.2
2003	1.9	-2.7
2004	3.3	-2.5
2005	3.4	0.4
2006	2.5	1.7
2007	4.1	2.1
2008	0.1	2.9
2009	2.7	1.0
2010	1.5	-0.9
2011	3.0	-0.3
2012	1.7	0.3
2013	1.5	0.0
2014	0.8	-2.1
2015	0.7	0.7

Note: Values report the percent change from December of the previous year through December of the year shown.

Sources: Bureau of Labor Statistics and Bureau of Economic Analysis.

Table 7.3
Monthly Consumer Price Indices
(December 2009 = 100)

	All Goods and Services	Telephone Services	Land-line Telephone Services	Wireless Telephone Services
BLS Series ID	CUUR0000SA0	CUUR0000SEED	CUUR0000SEED04	CUUR0000SEED03
2012 January	104.96	99.01	104.93	59.92
February	105.42	99.05	105.04	59.92
March	106.23	99.12	105.18	59.94
April	106.55	99.20	105.37	59.95
May	106.42	99.29	105.47	60.01
June	106.26	99.39	105.74	60.01
July	106.09	98.91	105.59	59.58
August	106.68	98.58	105.91	59.14
September	107.16	98.68	105.75	59.29
October	107.12	98.89	105.78	59.49
November	106.61	98.97	106.11	59.45
December	106.32	98.97	106.13	59.45
2013 January	106.64	99.26	107.15	59.36
February	107.51	99.26	107.58	59.20
March	107.79	99.19	107.56	59.14
April	107.68	98.58	107.42	58.58
May	107.87	98.64	107.60	58.58
June	108.13	98.58	107.47	58.57
July	108.17	98.70	108.16	58.43
August	108.30	98.63	108.14	58.36
September	108.43	98.83	108.78	58.33
October	108.15	99.04	109.34	58.33
November	107.93	98.93	109.20	58.28
December	107.92	98.96	109.35	58.25
2014 January	108.32	99.35	111.11	58.14
February	108.72	98.94	110.81	57.85
March	109.42	98.85	110.82	57.78
April	109.78	98.95	110.78	57.87
May	110.16	98.87	111.14	57.71
June	110.37	98.79	111.00	57.68
July	110.33	98.82	111.09	57.68
August	110.14	98.79	111.09	57.65
September	110.23	98.78	111.25	57.60
October	109.95	97.51	111.20	56.51
November	109.35	97.09	111.04	56.18
December	108.73	96.86	111.37	55.89
2015 January	108.22	96.82	112.32	55.61
February	108.69	96.70	112.70	55.41
March	109.34	96.32	113.10	54.98
April	109.56	96.22	113.03	54.90
May	110.12	95.87	113.28	54.54
June	110.51	95.96	113.48	54.56
July	110.51	96.18	113.63	54.71
August	110.36	96.79	113.83	55.19
September	110.19	97.04	113.94	55.39
October	110.14	97.20	114.00	55.51
November	109.90	97.63	113.90	55.91
December	109.53	97.59	113.86	55.88
2016 January	109.71	97.73	114.60	55.85
February	109.80	97.13	115.14	55.27
March	110.27	97.08	114.90	55.28
April	110.80	97.10	114.88	55.29
May	111.25	96.69	114.88	54.97
June	111.62	96.56	114.23	54.99
July	111.44	96.33	114.02	54.85

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

Source: Bureau of Labor Statistics

**Appendix:
Additional Information Regarding Universal Service High-Cost Support**

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Introduction. The Federal Communications Commission’s (Commission) 2011 *USF/ICC Transformation Order* comprehensively reformed and modernized the high-cost program within the universal service fund to support networks capable of providing voice and broadband services.¹ Among other actions taken in that Order, the Commission adopted a framework, known as the Connect America Fund (CAF), to provide ongoing support to ensure that consumers in rural, insular, and high-cost areas have access to modern communications networks capable of providing voice and broadband service, both fixed and mobile, at rates that are reasonably comparable to those in urban areas. The Commission’s goals are to: “(1) preserve and advance universal availability of voice service; (2) ensure universal availability of modern networks capable of providing voice and broadband service to homes, businesses, and community anchor institutions; (3) ensure universal availability of modern networks capable of providing mobile voice and broadband service where Americans live, work, and travel; (4) ensure that rates are reasonably comparable in all regions of the nation, for voice as well as broadband services; and (5) minimize the universal service contribution burden on consumers and businesses.”²

This appendix of the Monitoring Report provides a summary of the actions taken through December 31, 2016 to implement the high-cost program reforms and updates the data previously published in 2015 Universal Service Monitoring Report.³

¹ See *Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform—Mobility Fund*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC 17663 (2011) (*USF/ICC Transformation Order and/or FNPRM*), *aff’d In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014).

² *USF/ICC Transformation Order*, 26 FCC Rcd at 17680, para. 48 (footnote omitted).

³ 2015 Universal Service Monitoring Report Appendix, *available at* https://apps.fcc.gov/edocs_public/attachmatch/DOC-337019A1.pdf.

Connect America Fund Support for Fixed Services in Areas Served By Price Cap Carriers

Connect America Phase I. Phase I of the Connect America Fund implementation consisted primarily of two parts. First, the Commission froze support under existing high-cost support mechanisms for price cap carriers and their rate-of-return affiliates and required that frozen support during Phase I be used to build and operate voice and broadband-capable networks used to offer the provider's own retail broadband service in areas substantially unserved by an unsubsidized competitor.⁴ Second, to spur the deployment of voice and broadband-capable infrastructure to unserved locations while the Wireline Competition Bureau (Bureau) developed a forward-looking cost model to calculate the offer of Phase II support to price cap carriers, the Commission decided to offer additional, incremental support to price cap carriers.⁵

In Round 1 of Connect America Phase I, support to extend broadband-capable infrastructure was made available for areas lacking Internet access with speeds of at least 768 kbps downstream/200 kbps upstream. In July 2012, price cap carriers elected nearly \$115 million in Phase I incremental support, committing to bring broadband-capable infrastructure to nearly 400,000 previously unserved Americans by 2015.⁶ A map of states where carriers planned to use Phase I Round 1 funding is available at <http://www.fcc.gov/maps/connect-america-fund-caf-phase-i>.⁷ The deadline for completion of deployment for the first round of Phase I incremental support was July 2015. Recipients reported the following deployment to the Administrator, the Universal Service Administrative Company (USAC), in their July 2016 FCC Form 481:⁸

⁴ *USF/ICC Transformation Order* at 17712, para. 128; *see also* 47 CFR § 54.313(c). A price cap carrier recipient of frozen support was required to certify that an increasing portion of its frozen support was used to build and operate broadband-capable networks used to offer the provider's own retail broadband service in areas substantially unserved by an unsubsidized competitor. Recipients had to certify that 1/3 of frozen support received in 2013 was used for such purposes, increasing to 2/3 of frozen support in 2014, and all frozen support in 2015 and beyond. However, the use of frozen support is not limited to new capital investment occurring in 2013 and beyond. In calculating the amount of frozen support used to build and operate such networks, carriers are permitted to include the funds used to maintain and operate existing networks in areas substantially unserved by an unsubsidized competitor, as well as funds used to recover the costs of past network upgrades to extend broadband-capable networks in areas substantially unserved by an unsubsidized competitor. *Connect America Fund et al.*, Order, 28 FCC Rcd 14887, 14890, para. 10 (WCB 2013).

⁵ *USF/ICC Transformation Order*, 26 FCC Rcd at 17715-17, paras. 133-38.

⁶ Press Release, FCC, FCC Kicks-Off 'Connect America Fund' with Major Announcement: Nearly 400,000 Unserved Americans in Rural Communities in 37 States Will Gain Access to High-Speed Internet within Three Years (July 25, 2012), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-315413A1.pdf.

⁷ The Commission permitted carriers to change which census blocks they deployed to from what was originally indicated, so the map does not necessarily indicate actual deployment. *See Connect America Fund*, Report and Order, 28 FCC Rcd 7766, 7777, 7780, para. 31, 36 n.60 (2013).

⁸ USAC validation of the reported deployment for Round 1 is in progress. The Commission has directed USAC to develop a map that will enable the public to see the expansion of service availability over time resulting from the implementation of the reforms adopted in the *USF/ICC Transformation Order*. *See Connect America Fund et al.*, Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087, 3164, para. 221 (2016) (*Rate-of-Return Reform Order and/or FNPRM*).

Figure 1				
Phase I Round 1 Location Reporting				
100% Build-Out Milestone				
<u>Holding Company Name</u>	<u>Deployment Obligation</u>	<u>Actual Deployed Locations</u>	<u>Number of Locations Deficient</u>	<u>Percentage Completed</u>
Alaska Communications Systems (ACS)	5,401	2,501	2,900	46.31%
CenturyLink	45,289	45,289	0	100.00%
FairPoint	2,613	2,613	0	100.00%
Frontier	92,877	97,684	0	105.18%
Hawaii Telcom	519	520	0	100.19%
Windstream	843	846	0	100.36%

In May 2013, the Commission adopted rules for a second round of Connect America Phase I incremental support.⁹ The Commission expanded the eligible locations to include areas lacking Internet access with 3 Mbps downstream and 768 kbps upstream¹⁰ and concluded that parties could challenge whether a location was in fact served by an existing provider and thus ineligible for support.¹¹ On January 10, 2014, the Bureau issued an Order adjudicating challenges filed by over 80 interested parties.¹²

In Round 2 of Connect America Phase I, further support to extend broadband-capable infrastructure was provided. By March 2014, the Bureau had authorized nearly \$324 million in Phase I Round 2 support for deployment of broadband-capable infrastructure to over 1.2 million Americans.¹³ Included in this 1.2 million are 650,000 Americans who will receive access to broadband-capable infrastructure due to the Commission's decision to expand the eligible areas to include areas lacking 3 Mbps downstream and 768 kbps upstream. A map of areas where carriers planned to use Phase I Round 2 funding is available at <http://www.fcc.gov/maps/connect-america-fund-phase-i-round-two>.

Within two years of accepting Phase I Round 2 support, carriers were required to deploy to two-thirds of the required number of Phase I locations.¹⁴ Carriers reported on their two-year deployment in

⁹ *Connect America Fund*, Report and Order, 28 FCC Rcd 7766 (2013) (*Phase I Round 2 Order*).

¹⁰ *Id.* at 7771-72, paras. 15-16.

¹¹ *Id.* at 7776-79, paras. 28-33.

¹² *Id.*

¹³ *Id.*; *Over \$32 Million of Connect America Funding Authorized to Connect Unserved Homes and Businesses in Alaska, Hawaii, and Puerto Rico*, Public Notice, 28 FCC Rcd 14896 (WCB 2013); *Over \$255 Million of Connect America Funding Authorized to Connect Unserved Homes and Businesses in 41 States*, Public Notice, 28 FCC Rcd 16450 (WCB 2013). Price cap carriers that made conditional elections were given the opportunity to modify their elections, specifying additional locations in already authorized census blocks. *Connect America Fund*, Order, 29 FCC Rcd 181, 238, para. 299 (WCB 2014). Windstream and AT&T subsequently revised their elections in light of the resolution of the challenges. On March 14, 2014, the Bureau authorized an additional \$16,713,875 in Phase I incremental support for a further 20,045 locations. *See Additional \$16.7 Million in Connect America Phase I Support Authorized*, Public Notice, 29 FCC Rcd 2824 (WCB 2014).

¹⁴ *Wireline Competition Bureau Announces Deadlines for Connect America Phase I Round Two*, Public Notice, 29 FCC Rcd 11445 (WCB 2014).

July 2016. Recipients reported the following figures for Round 2 to the USAC in their July 2016 FCC Form 481:¹⁵

Figure 2				
Phase I Round 2 Location Reporting				
Two-Thirds Build-Out Milestone				
<u>Holding Company Name</u>	<u>Deployment Obligation</u>	<u>Actual Deployed Locations</u>	<u>Number of Locations Deficient</u>	<u>Percentage Completed</u>
ACS	316	316	0	100.00%
AT&T	129,032	10,138	75,888	7.86%
CenturyLink	68,548	5,881	39,820	8.58%
FairPoint	4,851	4,048	0	83.45%
Frontier	103,304	90,086	0	87.20%
Hawaii Telcom	1,317	1,062	0	80.64%
Puerto Rico Telephone	40,736	27,307	0	67.03%
Windstream	143,072	103,239	0	72.16%

Within three years of accepting Phase I Round 2 support, carriers must deploy to 100% of their Phase I Round 2 locations. Puerto Rico Telephone and Hawaii Telcom had until October 31, 2016; CenturyLink and FairPoint have until January 10, 2017; and AT&T, Frontier and Windstream have until March 14, 2017 to fulfill their respective obligations. Carriers are required to report on their completion of Phase I Round 2 by July 1, 2017.¹⁶

USAC has recovered funds from those carriers who have not met deployment obligations (ACS for Phase I Round 1, and AT&T and CenturyLink for Phase I Round 2).¹⁷ Even though AT&T and CenturyLink did not meet their Phase I Round 2 two-year obligations, if they ultimately meet their full deployment obligations, they will be eligible to have their Phase I Round 2 support restored.¹⁸

¹⁵ USAC validation of the reported deployment for the two-thirds milestone for Round 2 is in progress.

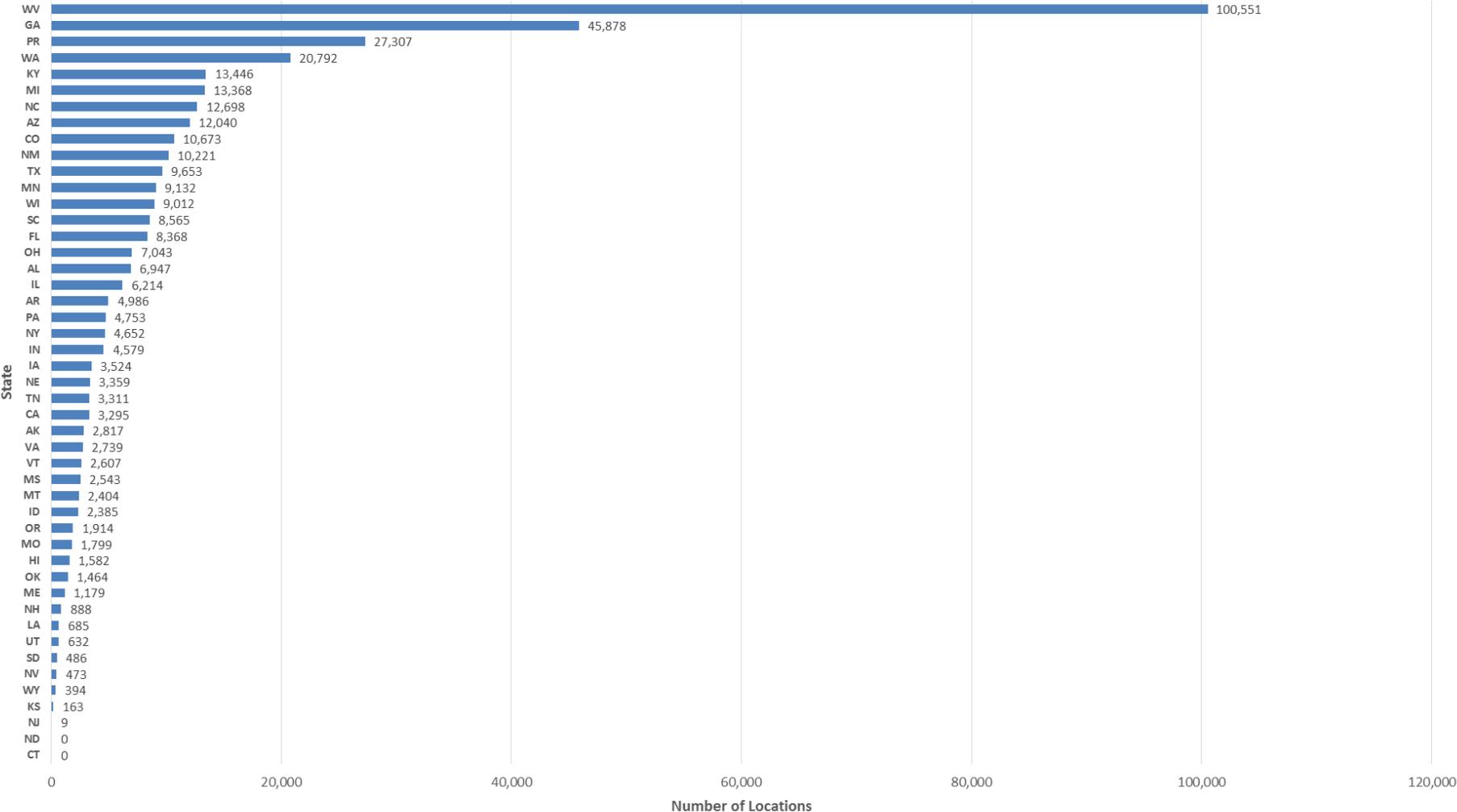
¹⁶ See *Wireline Competition Bureau Reminds Connect America Phase I Round Two Recipients of Deployment and Certification Deadlines*, Public Notice, DA 16-1415 (WCB Dec. 19, 2016).

¹⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17721, para. 147.

¹⁸ *Id.* at 17721, para. 147.

Figure 3
Deployment Numbers by State/Territory for CAF Phase I, Rounds 1 and 2
Based on the FCC Form 481 data as of July 1, 2016

CAF Phase I Round I and Round II Deployed Locations by State



Connect America Phase II. In the *USF/ICC Transformation Order*, the Commission determined that it would provide support in Phase II through a combination of “a new forward-looking model of the cost of constructing modern multi-purpose networks” and a competitive bidding process.¹⁹ Using the cost model to “estimate the support necessary to serve areas where costs are above a specified benchmark, but below a second ‘extremely high-cost’ benchmark,” the Commission concluded it would offer each price cap carrier “a model-derived support amount in exchange for a commitment to serve all locations in its service territory in a state that, based on the model, fall within the high-cost range and are not served by an competing, unsubsidized provider.”²⁰

Subsequently, in the *April 2014 Connect America Order and FNPRM*, the Commission established a three-year phase-down period for carriers that chose model-based support that is less than the frozen high-cost support the carrier previously received in order to avoid flash cuts.²¹

Further, in the *December 2014 Connect America Order*, the Commission finalized the decisions necessary to proceed with the offer of support to price cap carriers.²² In particular, the Commission revised the minimum speed requirement to 10 Mbps downstream.²³ The Commission also increased the term of support to six years, adopted more evenly spaced interim deployment milestones, and concluded that, in limited circumstances, adjustments of up to five percent in the number of locations that must be served with corresponding support reductions are appropriate to ensure that deployment obligations recognize conditions in the real world.²⁴ Additionally, the Commission forbore from the federal high-cost universal service obligation for price cap carriers to offer voice service in low-cost areas where they do not receive high-cost support, in areas served by an unsubsidized competitor, and in areas where the price cap carrier is replaced by another eligible telecommunications carrier (ETC).²⁵ The Commission also addressed the eligibility of certain areas for Phase II support, both for the offer of model-based support to price cap carriers and the subsequent Phase II auction.²⁶ Finally, the Commission took several steps to strengthen the uniform national framework for accountability by codifying the broadband reasonable comparability rates certification requirement, requiring price cap carriers that accept model-based support to submit specific location information, adjusting the framework for reduction in support for late-filed reports and certifications, and adopting measures for addressing non-compliance.²⁷

In the *USF/ICC Transformation Order*, the Commission delegated to the Bureau “the task of selecting a specific engineering cost model and associated inputs that meet the criteria specified” by the

¹⁹ *Id.* at 17725, para. 156.

²⁰ *Id.*

²¹ *Connect America Fund et al.*, Report and Order, Declaratory Ruling, Order, MO&O, Seventh Order on Reconsideration, and FNPRM, 29 FCC Rcd 7051, 7066-67, paras. 50-51 (2014) (*April 2014 Connect America Order and/or FNPRM*).

²² *Connect America Fund, ETC Annual Reports and Certifications, Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. §160(c) from Obsolete ILEC Regulatory Obligations that Inhibit Deployment of Next-Generation Networks*, Report and Order, 29 FCC Rcd 15644 (2014) (*December 2014 Connect America Order*).

²³ *December 2014 Connect America Order*, 29 FCC Rcd at 15649, paras. 15-29.

²⁴ *Id.* at 15656-61, paras. 31-44.

²⁵ *Id.* at 15663-71, paras. 51-70.

²⁶ *Id.* at 15671-74, paras. 73-81.

²⁷ *Id.* at 15686-701, paras. 118-157.

Commission.²⁸ The Commission also directed the Bureau to consider “whether the model ultimately adopted adequately accounts for the costs faced by carriers serving [areas outside of the United States].”²⁹

In April 2013, the Bureau adopted a platform for the Connect America Cost Model (CACM or CAM), which is the basic framework for the model consisting of key assumptions about the design of the network and network engineering, and also addressing certain framework issues relating to inputs.³⁰ In April 2014, the Bureau released an order finalizing decisions regarding the engineering assumptions in the CAM and adopting the inputs necessary for the model to calculate the cost of serving census blocks in price cap areas.³¹

In the *USF/ICC Transformation Order*, the Commission concluded that Phase II support would not be provided in areas served by an unsubsidized competitor, and it delegated to the Bureau the responsibility of determining those areas.³² The Commission specified that there be a process by which parties could challenge that initial determination of whether or not an area is unserved by an unsubsidized competitor. In June 2014, the Bureau commenced the Phase II challenge process.³³ In March 2015, the Bureau released the *Phase II Challenge Process Resolution Order*. In that order the Bureau concluded the Connect America Phase II challenge process and made a final determination regarding over 95,000 census blocks.³⁴

In April 2015, the Bureau announced the offers of model-based Phase II Connect America support to price cap carriers to fund the deployment of voice and broadband-capable networks in their service territories, a total of \$1.675 billion annually for six calendar years (2015-2020).³⁵ The carriers had 120 days (until August 27, 2015) to decide whether to accept the offers on a state-by-state basis.

²⁸ *USF/ICC Transformation Order*, 26 FCC Rcd at 17725, para. 157; *see also id.* at 17737, para. 192.

²⁹ *Id.* at 17737, para. 193. These “non-contiguous areas” are Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands, and the Northern Marianas Islands. *See id.*

³⁰ *See Connect America Fund; High-Cost Universal Service Support*, Report and Order, 28 FCC 5301 (WCB 2013) (*CAM Platform Order*).

³¹ *Connect America Fund et al.*, Report and Order, 29 FCC Rcd 3964 (WCB 2014) (*CAM Inputs Order*).

³² *USF/ICC Transformation Order*, 26 FCC Rcd at 17729, para. 170; *see also Connect America Fund*, Report and Order, 28 FCC Rcd 15060, 15076-80, paras. 39-47 (WCB 2013) (*Phase II Service Obligations Order*); *Connect America Fund*, Report and Order, 28 FCC Rcd 7211 (WCB 2013) (*Phase II Challenge Process Order*).

³³ *Wireline Competition Bureau Commences Connect America Phase II Challenge Process*, Public Notice, 29 FCC Rcd 7986 (WCB 2014). On September 26, 2014, the Bureau released a list of challenges that merited responses, giving parties 45 days to reply. *Replies Sought in Connect America Phase II Challenge Process*, Public Notice, 29 FCC Rcd 11497 (WCB 2014). The Bureau concluded that 24,225 challenges made a valid prima facie case that a census block should be treated as served, while 70,868 challenges made a valid prima facie case that a census block should be treated as unserved. Responses to the prima facie challenges were due November 10, 2014.

³⁴ *Connect America Phase II Challenge Process*, Order, 30 FCC Rcd 2718 (WCB 2015) (*Phase II Challenge Process Resolution Order*). The Bureau announced the results of the review of the challenges and replies, and provided an accompanying listing of those census blocks that would be treated as served and those that would be treated as unserved for purposes of calculating the Phase II offer of model-based support to price cap carriers. The Bureau concluded, based on review of the challenges and replies, that 57,288 census blocks should be treated as unserved and that 36,700 census blocks should be treated as served.

³⁵ *Wireline Competition Bureau Announces Connect America Phase II Support Amounts Offered to Price Cap Carriers to Expand Rural Broadband*, Public Notice, 30 FCC Rcd 3905 (WCB 2015).

On August 27, 2015, the Bureau announced that ten telecommunications carriers accepted over \$1.5 billion in annual support for rural broadband deployment from the Connect America Fund to serve over 3.6 million homes and businesses by the end of 2020.³⁶ This support, along with carrier investment, will expand broadband to nearly 7.3 million rural consumers in 45 states and one U.S. territory. In states where the carriers declined support, a competitive bidding process will be used to select entities that will be authorized to receive funding. The carriers accepting support include AT&T, Cincinnati Bell, CenturyLink, Consolidated Communications, FairPoint Communications, Frontier Communications, Hawaiian Telecom, Micronesian Telecom, Verizon,³⁷ and Windstream.³⁸ Figures 4 and 5 show accepted support by state and by carrier, respectively.

Figure 4
Accepted Price Cap CAF Phase II Offers of Model-Based Support By State
 (Source: https://apps.fcc.gov/edocs_public/attachmatch/DOC-335269A5.xlsx)

State	Homes & Businesses Served	Support Amount In Dollars
AL	126,497	\$44,767,752
AR	129,812	\$54,276,126
AZ	46,526	\$23,370,158
CA	231,835	\$98,330,096
CO	53,139	\$26,509,143
CT	1,388	\$435,139
FL	80,909	\$26,836,154
GA	134,005	\$50,858,551
HI	11,081	\$4,424,319
IA	88,214	\$53,200,244
ID	22,379	\$11,502,990
IL	92,519	\$50,128,844
IN	135,082	\$51,128,227
KS	64,393	\$35,443,694
KY	152,742	\$54,573,721
LA	99,302	\$37,378,605
MA	252	\$63,258
ME	35,500	\$13,289,220
MI	180,377	\$60,512,568

³⁶ Press Release, FCC, Carriers Accept Over \$1.5 Billion in Annual Support from Connect America Fund to Expand and Support Broadband for Nearly 7.3 Million Rural Consumers in 45 States and One Territory (Aug. 27, 2015), <https://www.fcc.gov/document/carriers-accept-over-15-b-support-expand-rural-broadband>.

³⁷ Verizon accepted \$31,978,057 in annual support for California and \$16,576,929 in annual support for Texas conditioned “upon issuance and acceptance of” regulatory approvals for Frontier Communications’ acquisition of Verizon’s subsidiaries in California and Texas. *See Verizon Communications Inc. Conditionally Accepts Over \$48.5 Million in Connect America Phase II Support in California and Texas*, Public Notice, 30 FCC Rcd 8594 (WCB 2015). In April 2016, Verizon notified the Bureau that the transaction had closed, and the Bureau subsequently authorized Frontier Communications to receive Phase II model-based support in California and Texas. *Wireline Competition Bureau Authorizes Frontier to Receive over \$48.5 Million in Connect America Phase II Support in California and Texas*, Public Notice, 30 FCC Rcd 3506 (WCB 2016)

³⁸ The Bureau provided all non-contiguous carriers the option of choosing either to continue to receive frozen support amounts or to elect to receive the model-determined support amount. *CAM Inputs Order*, 29 FCC Rcd at 4029, para. 152. Alaska Communications Systems (ACS) in Alaska, PRTC in Puerto Rico, and Vitelco in the U.S. Virgin Islands elected to receive frozen support. Later, the Commission proposed and sought comment on specific service obligations for non-contiguous carriers electing to continue to receive frozen support amounts. *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7117-7121. In October 2016, the Commission adopted specific service obligations for ACS, which are summarized below. *See infra* A-11; *Connect America Fund*, Order, 31 FCC Rcd 12086 (2016) (*ACS Service Obligations Order*).

Figure 4
Accepted Price Cap CAF Phase II Offers of Model-Based Support By State
 (Source: https://apps.fcc.gov/edocs_public/attachmatch/DOC-335269A5.xlsx)

MN	170,355	\$85,622,871
MO	189,323	\$93,728,312
MP	11,143	\$2,627,177
MS	139,269	\$51,506,992
MT	35,941	\$16,310,111
NC	68,267	\$19,055,517
ND	8,044	\$5,656,741
NE	35,839	\$23,215,615
NH	13,131	\$4,376,606
NJ	1,881	\$450,340
NM	32,340	\$15,369,074
NV	5,235	\$2,451,840
NY	59,627	\$21,444,471
OH	166,967	\$58,483,365
OK	17,391	\$8,003,516
OR	50,327	\$21,657,260
PA	76,777	\$27,694,806
SC	49,358	\$16,286,714
SD	15,071	\$9,117,215
TN	93,422	\$29,927,295
TX	212,492	\$93,131,882
UT	9,506	\$4,441,848
VA	52,433	\$16,588,786
VT	28,399	\$8,789,359
WA	81,865	\$34,421,951
WI	230,451	\$95,438,696
WV	89,190	\$38,068,337

Figure 5
Accepted Price Cap CAF Phase II Offers of Model-Based Support By Carrier
 (Source: https://apps.fcc.gov/edocs_public/attachmatch/DOC-335269A5.xlsx)

Price Cap Carrier	States Served	Homes & Businesses Served	Support Amount In Dollars
AT&T	AL, AR, CA, FL, GA, IL, IN, KS, KY, LA, MI, MS, NC, OH, SC, TN, TX, WI	1,117,806	\$427,706,650
CINCINNATI BELL	KY, OH	7,084	\$2,229,130
CENTURYLINK	AL, AR, AZ, CO, FL, GA, IA, ID, IL, IN, KS, LA, MI, MN, MO, MT, NC, ND, NE, NJ, NM, NV, OH, OR, PA, SC, SD, TN, TX, UT, VA, WA, WI	1,174,142	\$505,702,762
CONSOLIDATED COMMUNICATIONS	CA, IA, ³⁹ IL, MN, PA, TX	24,698	\$13,922,480

³⁹ Consolidated Communications transferred control of its entire Iowa study area to Mutual Telephone Company of Sioux Center d/b/a Premier Communications (Mutual), with two of the exchanges being transferred to Winnebago Cooperative Telecom Association (Winnebago). In September 2016, the Bureau granted a study area waiver for this transaction. *Connect America Fund et al.*, Order, 31 FCC Rcd 10683 (WCB 2016). Starting with the disbursement for October 2016, Mutual and Winnebago are now the recipients of the Phase II support associated with the eligible

Figure 5			
Accepted Price Cap CAF Phase II Offers of Model-Based Support By Carrier			
(Source: https://apps.fcc.gov/edocs_public/attachmatch/DOC-335269A5.xlsx)			
FAIRPOINT COMMUNICATIONS	AL, FL, IL, MA, ME, MO, NH, NY, OH, OK, PA, VA, VT, WA	105,220	\$37,430,669
FRONTIER COMMUNICATIONS	AL, AZ, CA, CT, FL, GA, IA, ID, IL, IN, MI, MN, MS, MT, NC, NE, NM, NV, NY, OH, OR, PA, SC, TN, UT, WA, WI, WV	659,587	\$283,401,855
HAWAIIAN TELCOM INC	HI	11,081	\$4,424,319
MICRONESIAN TELECOMM	MTC	11,143	\$2,627,177
VERIZON	CA, TX ⁴⁰	114,610	\$48,554,986
WINDSTREAM COMMUNICATIONS	AL, AR, FL, GA, IA, KY, MN, MO, MS, NC, NE, NY, OH, OK, PA, SC, TX	404,625	\$174,895,478

In May 2016, the Commission adopted a Report and Order establishing a framework for the Phase II auction.⁴¹ The Commission set the budget for the Phase II auction at \$215 million per year for a 10-year support term, adopted service obligations for recipients of Phase II auction support, finalized decisions regarding areas that will be eligible for the auction, adopted certain eligibility requirements as well as post-auction obligations and oversight measures, and provided basic guidance about the auction process. Through the Phase II auction, bidders will be able to compete to receive support to offer voice and broadband service to locations in census blocks where price cap carriers declined Phase II model-based support that remain unserved with 10/1 Mbps broadband, and in certain other census blocks nationwide, including those unserved census blocks with extremely high deployment costs. The Commission will accept bids for four technology-neutral service tiers with varying speed and usage allowances, and for each tier will differentiate between bids that would offer either low or high latency.

In the accompanying Further Notice of Proposed Rulemaking, the Commission sought comment on a number of issues, including on how to apply weights to the different service tiers, on measures to achieve the public interest objective of ensuring appropriate support for all states, and on measures to achieve the public interest objective of expanding broadband on Tribal lands.⁴² Specific details regarding the mechanics of the auction will be determined by the Commission at a future date after further opportunity for comment.

census blocks that are located in their respective exchanges. They will be required to offer voice and broadband service meeting the Phase II service obligations to the total number of locations that are in those eligible census blocks by the relevant build-out milestones. *Id.*

⁴⁰ As noted above, Frontier has since acquired Verizon's subsidiaries in California and Texas. *See supra* n.37.

⁴¹ *Connect America Fund, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 5949 (2016) (*Phase II Auction Order and/or FNPRM*).

⁴² *Phase II Auction FNPRM*, 31 FCC Rcd at 6020-27, paras. 205-29.

In August 2016, the Bureau released a list of the census blocks that are preliminarily eligible for the Phase II auction.⁴³ The Bureau will release the final list of the eligible census blocks approximately three months prior to the deadline for short-form applications. The date for the Phase II auction has not yet been set.

ACS Phase II Frozen Support. On October 24, 2016, the Commission adopted tailored service obligations for ACS, a carrier serving a non-contiguous area in Alaska. ACS elected to receive nearly \$20 million annually for a 10-year term and is required to offer voice service and broadband service at the same speed, latency, usage and pricing metrics as established for Phase II model-based carriers to at least 31,571 locations, primarily in census blocks identified as high-cost that are unserved by unsubsidized competitors. The Commission allowed ACS the flexibility to deploy to up to 7,900 locations in “partially served census blocks,” subject to a challenge process. The Commission also allowed ACS the flexibility to count towards its service obligation up to 2,714 locations in census blocks identified by the model as “low-cost,” so long as those locations are unserved with broadband by either ACS or a competitor, the low-cost census block is immediately adjacent to high-cost census blocks, and ACS certifies that the capital investment cost to build to the location is at least \$5,000.⁴⁴

Rural Broadband Experiments. In July 2014, the Commission adopted a budget of up to \$100 million for rural broadband experiments (RBE) and established an objective methodology for selecting projects among formal applications from those carriers that would deploy new, robust broadband to consumers in price cap areas.⁴⁵ By the end of 2016, all winning bidders that successfully met the requirements established by the Commission had been authorized.⁴⁶

Applications were due on November 7, 2014. On December 5, 2014, the Bureau announced 37 bidders that were provisionally selected for funding in each category, subject to the post-selection process.⁴⁷ Collectively the bidders sought support to cover 26,867 census blocks in 25 states and Puerto Rico. Following this announcement, some winners indicated they were no longer interested and others defaulted on their bids. Still others sought waiver of the audited financial documents requirement and submitted other documentation instead. On December 23, 2014, the Bureau announced those bidders that defaulted and the availability of \$716,000 in additional funding.⁴⁸ Entities interested in being considered next-in-line were permitted to submit required documents until January 6, 2015. On February 3, 2015 the Bureau announced the next-in-line bidders.⁴⁹ On March 4, 2015, the Bureau announced 12 additional provisionally selected bidders.⁵⁰

⁴³ *Wireline Competition Bureau Releases Preliminary List and Map of Eligible Census Blocks for the Connect America Phase II Auction*, Public Notice, 31 FCC Rcd 8870 (WCB 2016).

⁴⁴ *ACS Service Obligations Order*, 31 FCC Rcd 12086.

⁴⁵ *Connect America Fund, ETC Annual Reports and Certifications*, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8769 (2014) (*Rural Broadband Experiments Order*).

⁴⁶ Two applications for review of Bureau decisions remain pending.

⁴⁷ *Wireline Competition Bureau Announces Entities Provisionally Selected for Rural Broadband Experiments; Sets Deadlines For Submission of Additional Information*, Public Notice, 29 FCC Rcd 14684 (WCB 2014).

⁴⁸ *Wireline Competition Bureau Announces Availability of Additional Funding For Rural Broadband Experiments*, Public Notice, 29 FCC Rcd 16243 (WCB 2014).

⁴⁹ *Wireline Competition Bureau Announces Entities Under Consideration As Next-In-Line Bidders for Rural Broadband Experiments*, Public Notice, 30 FCC Rcd 1045 (WCB 2015).

⁵⁰ *Wireline Competition Bureau Announces Additional Provisionally Selected Bidders For Rural Broadband Experiments*, Public Notice, 30 FCC Rcd 2045 (WCB 2015).

In 2015, the Bureau authorized RBE support for many of the bidders. In 2016, the Bureau completed its work authorizing the remaining bidders. In total, over \$41 million in RBE support has been authorized. Figure 6 provides summary information regarding RBE support.

Figure 6

Authorized Rural Broadband Experiments

(<https://www.fcc.gov/general/rural-broadband-experiments>)

	Project State(s)	Total Support Awarded	Total Census Blocks (CBs) covered by Project(s)	Total Price-Cap (PC) Locations within Total CBs	Technology	Speeds Offered (Up/Down Mbps)	Date of Public Notice Announcing Authorization
Allamakee-Clayton Electric Cooperative, Inc.	IA	\$1,453,593	209	665	Hybrid fiber/ fixed wireless	10/1	8/7/2015
BARC Electric Cooperative	VA	\$239,918	64	801	Fiber	25/5; 35/10; 50/15; 75/25; 120/25; 250/35; 1,000/50	12/11/2015
Big Bend Telecomm	TX	\$178,425	15	21	Hybrid fiber/ fixed wireless	3/1, 6/1, 12/1	9/12/2016
Consolidated Communications Networks, Inc.	ND	\$3,096,810	103	171	Fiber	10/1	8/7/2015
Daktel Communications, LLC	ND	\$875,000	109	508	Fiber	25/5; 50/5	11/12/2015
Delta Communications LLC	IL	\$2,196,000	78	122	Fiber	10/1	8/7/2015
Douglas Services, Inc.	OR	\$2,375,000	325	2,495	Fiber	50/10; 100/25; 250/25	12/11/2015

Figure 6
Authorized Rural Broadband Experiments
 (https://www.fcc.gov/general/rural-broadband-experiments)

	Project State(s)	Total Support Awarded	Total Census Blocks (CBs) covered by Project(s)	Total Price-Cap (PC) Locations within Total CBs	Technology	Speeds Offered (Up/Down Mbps)	Date of Public Notice Announcing Authorization
Federated Telephone Cooperative	MN	\$1,455,962	95	344	Fiber	20/20; 50/50; 100/100; 300/300	11/12/2015
First Step Internet, LLC	ID, WA	\$415,855	116	453	LTE Wireless (3.65 GHz)	10/1	9/11/2015
Lake County, Minnesota d/b/a Lake Connections	MN	\$3,491,280	845	8,497	Fiber	100/25	12/12/2016
Midwest Energy Cooperative d/b/a Midwest Connections	MI	\$211,532	31	421	Fiber	25/10; 50/20; 100/25	2/9/2016
New Lisbon Broadband and Communications, LLC	IN	\$37,696	7	24	Fiber	10 /1, 25 /5, and 50 /10	5/4/2016
Northeast Rural Services, Inc.	OK	\$4,330,315	434	3,169	Fiber	25/5 (up to 1,000)	9/11/2015 (1,4,6,12)
							12/11/2015 (5,11)
							9/12/2016
Northern Valley Communications, LLC	SD	\$2,022,120	258	411	LTE Wireless (4 GHz)	25/3	2/9/2016

Figure 6
Authorized Rural Broadband Experiments
 (https://www.fcc.gov/general/rural-broadband-experiments)

	Project State(s)	Total Support Awarded	Total Census Blocks (CBs) covered by Project(s)	Total Price-Cap (PC) Locations within Total CBs	Technology	Speeds Offered (Up/Down Mbps)	Date of Public Notice Announcing Authorization
Paul Bunyan Rural Telephone Cooperative	MN	\$1,962,000	134	1,839	Fiber	25/5; 250/250; 500/500 (up to 1,000)	11/12/2015
Skybeam, LLC	IA, IL,KS, NE, TX	\$16,942,887	3,877	16,751	Fixed Wireless	5/1; 10/2; 25/5	8/7/2015 (for bids 2, 3,7, 8)
							11/12/2015 (bids 1, 4,5,9,11)
							01/12/2016 (bid 10)
Total	15 states	\$41,284,393	6,700	36,692			

Connect America Fund Support for Mobile Services

Mobility Fund Phase I. For the first time, in the *USF/ICC Transformation Order*, the Commission established a universal service support mechanism dedicated exclusively to mobile services – the Mobility Fund. Mobility Fund Phase I support was awarded through a nationwide reverse auction, Auction 901, held in September 2012. This auction made available up to \$300 million in one-time support to accelerate deployment of networks for mobile voice and broadband services in areas unserved by current generation or 3G networks. In this auction, there were a total of 33 winning bidders eligible to receive a total of \$299,998,632 in one-time Mobility Fund Phase I universal service support to provide 3G or better mobile voice and broadband services covering up to approximately 83,000 road miles in 795 biddable geographic areas located in 31 states and 1 territory.

On March 11, 2016, the Wireless Telecommunications and Wireline Competition Bureaus (Bureaus) authorized approximately \$330,000 of support to VTel Wireless for eleven winning bids. With this authorization, all winning bids for Mobility Fund Phase I have been authorized.⁵¹ Since April 2013, the Bureaus have authorized disbursements for over \$270 million in winning bids, and announced over \$27 million in auction defaults. Of the authorized winning bids, eight winning bidders subsequently defaulted on their performance obligations for bids totaling over \$63 million. A performance default by Allied Wireless Communications Corporation (Allied), accounted for over 71 percent of the total performance default amount and occurred because Allied's parent company assigned to AT&T the licenses that Allied needed to meet its performance requirements.

Mobility Fund Phase II. The Commission also proposed, in the *USF/ICC Transformation FNPRM*, to use a reverse auction to provide up to \$500 million per year in ongoing support as part of the Mobility Fund Phase II in order to promote mobile broadband and high quality voice services in areas where such services cannot be sustained or extended absent federal support.⁵² In November 2012, the Bureaus released a public notice seeking further comment on a limited number of specific issues relating to the implementation of Phase II of the Mobility Fund, particularly in light of experience with the recently-concluded Mobility Fund Phase I auction (Auction 901).⁵³ Subsequently, in 2014, the Commission sought further comment on issues relating to the Mobility Fund. The FNPRM addressed significant developments that have occurred in the marketplace for mobile wireless services since the adoption of the *USF/ICC Transformation Order*. Given the commercial deployment of 4G Long Term Evolution (LTE), the FNPRM proposed to retarget the focus of Mobility Fund Phase II and sought comment on targeted measures that would (i) address those areas of the country where LTE is not and will not be available in the foreseeable future, and (ii) preserve existing mobile voice and broadband service where it would not otherwise exist without government support.⁵⁴

In September 2016, the Wireless Telecommunications Bureau released a staff report, *Working Toward Mobility Fund II: Mobile Broadband Coverage Data and Analysis*, that analyzes the Form 477 4G LTE coverage data.⁵⁵ The report describes and analyzes data on mobile broadband coverage based on

⁵¹ *Mobility Fund Phase I Support Authorized for 11 Winning Bids, Default on 35 Winning Bids Determined*, Public Notice, 31 FCC Rcd 1721 (WTB and WCB 2016).

⁵² *USF/ICC Transformation Order*, 26 FCC Rcd at 18069-70, para. 1121.

⁵³ *Further Inquiry Into Issues Related to Mobility Fund Phase II*, Public Notice, 27 FCC Rcd 14798 (WCB and WTB 2012).

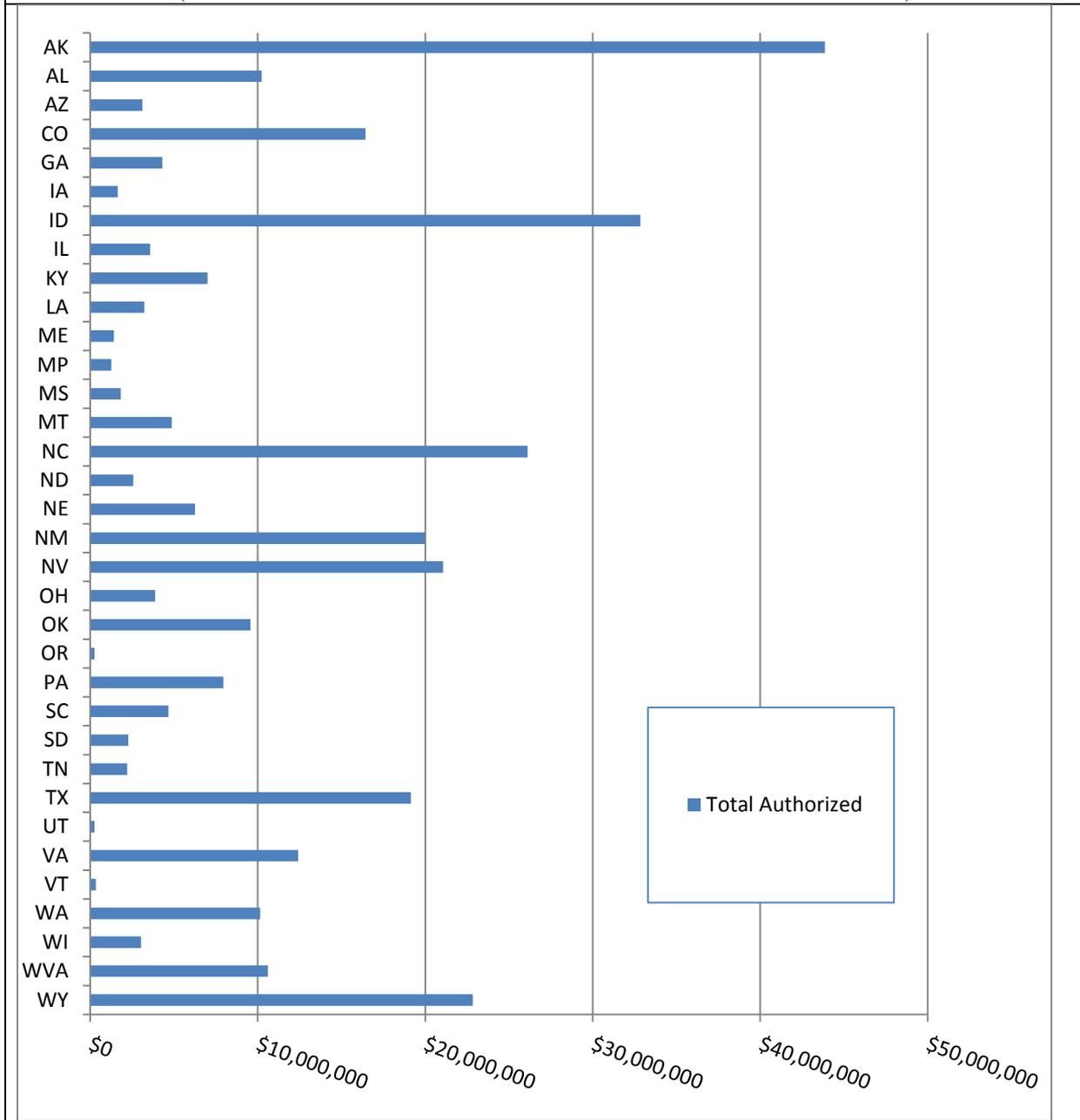
⁵⁴ *April 2014 Connect America FNPRM*, 29 FCC Rcd at 7127-28, para 239.

⁵⁵ *Working Toward Mobility Fund II: Mobile Broadband Coverage Data and Analysis*, Wireless Telecommunications Bureau, Sept. 30, 2016, available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-341539A1.pdf.

Form 477 submissions, which will enable the Commission to make fact-based decisions regarding where and how high-cost support should be deployed through the Mobility Fund Phase II. The FNPRM remains pending.

Tribal Mobility Fund Phase I. In the *USF/ICC Transformation Order*, the Commission set aside \$50 million in one-time (Phase I) support to accelerate immediately deployment of networks for mobile voice and broadband services in unserved Tribal land areas to be awarded through a separate complementary one-time Tribal Mobility Fund Phase I auction. This auction, designated Auction 902, was completed on February 25, 2014. The five winning bidders are eligible to receive a total of up to \$49,806,874 in one-time Tribal Mobility Fund Phase I universal service support to provide 3G or better mobile voice and broadband services covering a population of 56,932 in 80 biddable areas. These areas include 18 biddable areas on five Reservations or Tribal lands in Arizona, Montana, New Mexico, and Utah; and 62 biddable areas in 49 Alaska Native Village Statistical Areas and 13 bidding areas otherwise in Alaska Native Regions. The Bureaus have authorized \$49,806,874 in support.

Figure 7
Mobility and Tribal Mobility Phase I Authorized Support
 (Source: Authorized Public Notices available on FCC Auctions website)



Mobile Support in Alaska. In August 2016, consistent with the goals articulated in the *USF/ICC Transformation Order*, and based on a consensus plan filed by mobile providers serving remote Alaska, the Commission established a separate ongoing high-cost support mechanism to sustain and expand the availability of mobile voice and broadband service in remote Alaska.⁵⁶ The competitive ETCs that participate will be required to meet individualized performance plans that include mobile broadband

⁵⁶ *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 10139 (2016) (*Alaska Plan Order*). See *infra* A-22.

service at specified minimum speeds to a certain percentage of the eligible population. By public notice released December 21, 2016, the Wireless Telecommunications Bureau approved the performance plans of each of the eight wireless providers in remote Alaska that elected support under the Alaska high-cost support mechanism, and directed USAC to begin disbursements under the mechanism to these providers starting January 1, 2017.⁵⁷

Connect America Fund Support for Fixed Services in Areas Served By Rate-Of-Return Carriers

Reforms to Support for Rate-of-Return Carriers. In March 2016, following extensive collaboration with rate-of-return stakeholders, the Commission approved an order establishing a new mechanism for the distribution of support in rate-of-return areas that gives rural carriers two paths, described below, for receiving broadband-oriented support.⁵⁸

Under one option, rate-of-return carriers may elect to receive model-based support, calculated using the Alternative Connect America Cost Model (A-CAM), for a term of 10 years in exchange for meeting defined build-out obligations — a specific number of locations where carriers are required to provide 4/1 Mbps, 10/1 Mbps, and 25/3 Mbps over the course of ten years with interim milestones. In addition, a certain number of locations are subject to the Commission’s reasonable request standard. After conducting a challenge process to eliminate census blocks served by an unsubsidized competitor, the Bureau completed A-CAM (version 2.3) and announced the offer of model-based support on August 3, 2016.⁵⁹ Carriers had until November 1, 2016 to indicate, on a state-by-state basis, whether they elect to receive model-based support.⁶⁰

On November 2, 2016, the Bureau announced that 216 rate-of-return companies submitted letters electing 274 separate offers of A-CAM support in 43 states. The Bureau determined that model-based support and transition payments would exceed the overall 10-year budget set by the Commission by more than \$160 million annually.⁶¹ On December 20, 2016, the Commission released an Order adopting measures to address the significant demand for A-CAM support and directed the Bureau to take steps consistent with this Order to enable electing carriers to receive A-CAM support.⁶² As set forth in Figure 8, the Bureau has authorized 35 rate-of-return companies that elected 45 offers of A-CAM support to receive model-based support pursuant to their existing elections. In addition, for the remaining 191 companies that elected model-based support, the Bureau has announced 228 revised offers of model-

⁵⁷ *Wireless Telecommunications Bureau Approves Performance Plans of the Eight Wireless Providers That Elected to Participate in the Alaska Plan*, WC Docket No. 16-271, Public Notice, DA 16-1419 (WTB rel. Dec. 21, 2016).

⁵⁸ *Connect America Fund et al.*, Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087 (2016) (*Rate-of-Return Reform Order*).

⁵⁹ *Wireline Competition Bureau Releases Report for Alternative Connect America Cost Model with Minor Corrections*, Public Notice, 31 FCC Rcd 8959 (WCB 2016); *Wireline Competition Bureau Announces Support Amounts Offered to Rate-of-Return Carriers to Expand Rural Broadband*, Public Notice, 31 FCC Rcd 8641 (WCB 2016).

⁶⁰ *See Wireline Competition Bureau Announces Support Amounts Offered to Rate-of-Return Carriers to Expand Rural Broadband*, Public Notice, 31 FCC Rcd 8641 (WCB 2016).

⁶¹ *Wireline Competition Bureau Announces Results of Rate-of-Return Carriers that Accepted Offer of Model Support*, Public Notice, 31 FCC Rcd 11966 (WCB 2016).

⁶² *Connect America Fund*, Report and Order and Further Notice of Proposed Rulemaking, FCC 16-178 (Dec. 20, 2016) (*A-CAM Revised Offer Order*).

based support and the associated revised deployment obligations.⁶³ Carriers have until January 19, 2017 to elect this second offer.

Figure 8
Authorized A-CAM Support & Obligations
December 20, 2016

State	Holding Company	Annual Rate-of-Return Carrier Model-Based Support	Number of Locations in Eligible Census Blocks with Obligation to Offer 25/3 Mbps	Number of Locations in Eligible Census Blocks with Obligation to Offer 10/1 Mbps	Number of Locations in Eligible Census Blocks with Obligation to Offer 4/1 Mbps	Number of Locations Remaining on Reasonable Request Standard
ROR Sub Total	ROR Sub Total	51,324,925	54,696	21,703	2,097	4,088
AL	Otelco Inc.	1,898,802	5,812	1,938	8	8
AZ	Accipiter Communications,	945,721	60	180	68	206
CA	Bryan Family Inc.	435,246	3	10	42	127
CA	LICT Corporation	1,192,277	144	432	74	222
FL	Smart City Finance, LLC	204,405	144	48	11	12
FL	Telephone and Data Systems, Inc.	379,344	1,220	407	5	6
GA	Fail, Inc.	11,820	30	11	-	-
GA	Pineland Telephone Cooperative, Inc.	1,392,004	1,458	487	42	43
GA	Telephone and Data Systems, Inc.	1,983,266	3,981	1,328	54	54
IA	Fenton Cooperative Telephone Company	98,922	19	20	5	15
IA	LICT Corporation	482,419	372	124	6	6
IA	Partner Communications	1,351,206	740	247	81	82
IA	Scranton Telephone Company	463,135	133	133	17	52
IL	Geneseo Communications,	990,891	681	227	48	48
IN	Bloomington Home Telephone Company	612,965	316	106	8	9
KS	TelAtlantic, Inc.	345,671	32	96	21	65
KS	USConnect Holdings, Inc.	674,524	93	282	26	79
MA	CornerStone Telephone Company,	557	-	1	-	-

⁶³ Wireline Competition Bureau Authorizes 35 Rate-Of-Return Companies to Receive More Than \$51 Million Annually in Alternative Connect America Cost Model Support and Announces Offers of Revised A-CAM Support Amounts to 191 Rate-Of-Return Companies to Expand Rural Broadband, Public Notice, 16-1422 (WCB Dec. 20, 2016).

Figure 8
Authorized A-CAM Support & Obligations
December 20, 2016

State	Holding Company	Annual Rate-of-Return Carrier Model-Based Support	Number of Locations in Eligible Census Blocks with Obligation to Offer 25/3 Mbps	Number of Locations in Eligible Census Blocks with Obligation to Offer 10/1 Mbps	Number of Locations in Eligible Census Blocks with Obligation to Offer 4/1 Mbps	Number of Locations Remaining on Reasonable Request Standard
MA	Otelco Inc.	3,243	11	4	-	-
ME	Otelco Inc.	1,041,171	1,433	478	35	35
MS	American Broadband Communications et	160,938	158	159	2	9
MT	Southern Montana Telephone Company	2,698,957	157	473	200	603
NE	USConnect Holdings, Inc.	650,679	23	71	54	165
NH	Telephone and Data Systems, Inc.	520,365	1,407	470	4	5
NV	Beehive Telephone Companies	355,595	20	62	23	72
NV	Day Management Corporation	447,998	444	149	39	39
NY	Alteva Inc.	4,219	18	7	-	-
OH	Hanson Communications,	428,162	354	119	4	5
OH	Horizon Telecom	1,465,554	2,286	762	15	15
OH	VNC Enterprises, LLC	88,186	144	49	1	1
OK	Cross Telephone Company LLC	3,478,143	3,928	1,310	104	104
OK	DWL Holding Company	3,784,420	1,329	1,330	228	686
OK	MBO Corporation	3,635,531	2,590	864	247	248
PA	TelAtlantic, Inc.	14,400	-	-	3	3
PA	Townes Telecommunications,	44,326	77	26	-	-
SC	Home Telephone Company, Inc. (SC)	1,367,830	2,357	786	55	56
SC	West Carolina Rural Telephone	1,008,846	947	316	45	46
TN	Telephone and Data Systems, Inc.	7,176,061	12,129	4,043	118	119
TX	Etex Telephone Cooperative, Inc.	1,993,283	4,201	1,401	18	18
TX	Five Area Telephone Cooperative, Inc.	3,021,156	288	866	193	579
TX	Industry Telephone Company	2,102,230	1,596	533	90	91
TX	Riviera Telephone Company, Inc.	361,692	59	180	23	72
VA	NTELOS, Inc.	1,693,508	2,728	910	69	70

Figure 8
Authorized A-CAM Support & Obligations
December 20, 2016

State	Holding Company	Annual Rate-of-Return Carrier Model-Based Support	Number of Locations in Eligible Census Blocks with Obligation to Offer 25/3 Mbps	Number of Locations in Eligible Census Blocks with Obligation to Offer 10/1 Mbps	Number of Locations in Eligible Census Blocks with Obligation to Offer 4/1 Mbps	Number of Locations Remaining on Reasonable Request Standard
VT	Telephone and Data Systems, Inc.	263,655	756	252	2	3
WV	Otelco Inc.	51,606	18	6	9	10

Rate-of-return carriers not on A-CAM support remain on legacy support, which the Commission modified in 2016 to provide support in situations where the customer no longer subscribes to traditional regulated local exchange voice service. This reformed mechanism is known as Connect America Fund Broadband Loop Support (CAF-BLS) and replaces interstate common line support (ICLS); it will be implemented starting in January 2017.⁶⁴ Most carriers remaining on legacy support must offer broadband service at actual speeds of at least 10 Mbps downstream/1 Mbps upstream, over a five-year period, to a defined number of unserved locations.⁶⁵ These carriers also remain subject to the requirement that they offer voice and broadband service at these speeds upon reasonable request to their remaining locations. As part of the reforms to the legacy support mechanisms, the Commission also adopted an operating expense limitation and a capital investment allowance, which will be implemented in 2017. The order further adopted a mechanism for implementing the \$2 billion per year budget for rate-of-return carriers,⁶⁶ which was implemented in September 2016.⁶⁷ The Commission also represetribed the authorized rate of return for carriers from 11.25% to 9.75%, with a phase-in over six years.⁶⁸ Effective July 1, 2016, the authorized rate of return was 11%.

Alaska Plan. On August 31, 2016, the Commission released the *Alaska Plan Order*.⁶⁹ In the Order, the Commission adopted an integrated plan to address both fixed and mobile voice and broadband service in high-cost areas of the state of Alaska, building on a proposal submitted by the Alaska Telephone Association. Specifically, the Commission provided a one-time opportunity for Alaskan rate-of-return carriers to elect to receive support frozen at adjusted 2011 levels for a 10-year term. Alaskan rate-of-return carriers that elect Alaska Plan support must meet individualized performance obligations by offering voice and broadband services that meet the service obligations the Commission adopted in the

⁶⁴ For the purpose of calculating CAF-BLS, the Commission adopted a revenue imputation of \$42 per loop per month. *Rate-of-Return Reform Order*, 31 FCC Rcd at 3122, para. 92. The revenue imputation of \$42 per loop per month is subject to two exceptions. *See id.* at 3123-24, paras. 93-94.

⁶⁵ Carriers that have deployed 10/1 Mbps broadband to 80% or more of the locations in their study area are not subject to mandatory deployment obligations. In October 2016, the Bureau posted information regarding the mandatory deployment obligations that will apply to rate-of-return carriers that remain on legacy universal service support mechanisms. *Wireline Competition Bureau Announces Posting of Information Regarding Deployment Obligations for Incumbent Rate-of-Return Carriers*, Public Notice, 31 FCC Rcd 11011 (WCB 2016).

⁶⁶ *Id.* at 3142-45, paras. 146-55.

⁶⁷ *Wireline Competition Bureau Announces Implementation of the Budget Control Mechanism for Rate-of-Return Carriers*, Public Notice, 31 FCC Rcd 7189 (WCB 2016).

⁶⁸ *Rate-of-Return Reform Order*, 31 FCC Rcd at 3171, para. 226.

⁶⁹ *Alaska Plan Order*, 31 FCC Rcd 10139.

Order, including specified minimum speeds, by five-year and 10-year service milestones to a specified number of locations. On December 21, 2016, the Bureau approved the performance plans submitted by 13 rate-of-return companies in Alaska.⁷⁰ The Bureau deferred action on the performance plans submitted by two companies that have elected to receive A-CAM support pending their consideration of the revised offer of A-CAM support.⁷¹

HCLS/ICLS. While the Commission adopted reforms to the legacy support mechanisms for rate-of-return carriers in the *Rate-of-Return Reform Order*, and provided Alaska rate-of-return carriers the option of receiving frozen support in the *Alaska Plan Order*, rate-of-return carriers continued to receive support under the legacy mechanisms in 2016 pending full implementation of those reforms.

Support for rate-of-return carriers has been subject to the HCLS cap and rural growth factor for more than a decade, which were not altered in the *USF/ICC Transformation Order*.⁷² In 2001, the Commission modified the distribution of HCLS by re-basing the fund for rural telephone companies and retaining an indexed cap.⁷³ Specifically, the Commission concluded that the total cap on HCLS would be adjusted annually by a rural growth factor equal to annual changes in gross domestic product (GDP) and the consumer price index (CPI) and changes in the total number of working loops.⁷⁴ Given decreases in working loops in rate-of-return areas in recent years, the indexed cap has limited HCLS for many rate-of-return carriers.

Figure 9 displays information regarding the amounts of HCLS and ICLS disbursed to incumbent rate-of-return providers from 2011-2016.⁷⁵

⁷⁰ *Wireline Competition Bureau Authorizes Alaska Plan Support For 13 Alaskan Rate-of-Return Companies*, DA 16-271, Public Notice (WCB Dec. 21, 2016)

⁷¹ *Id.* at 2.

⁷² *See Federal-State Joint Board on Universal Service et al.*, Twenty-Second Order on Reconsideration et al., 16 FCC Rcd 11244 (2001) (*Rural Task Force Order*).

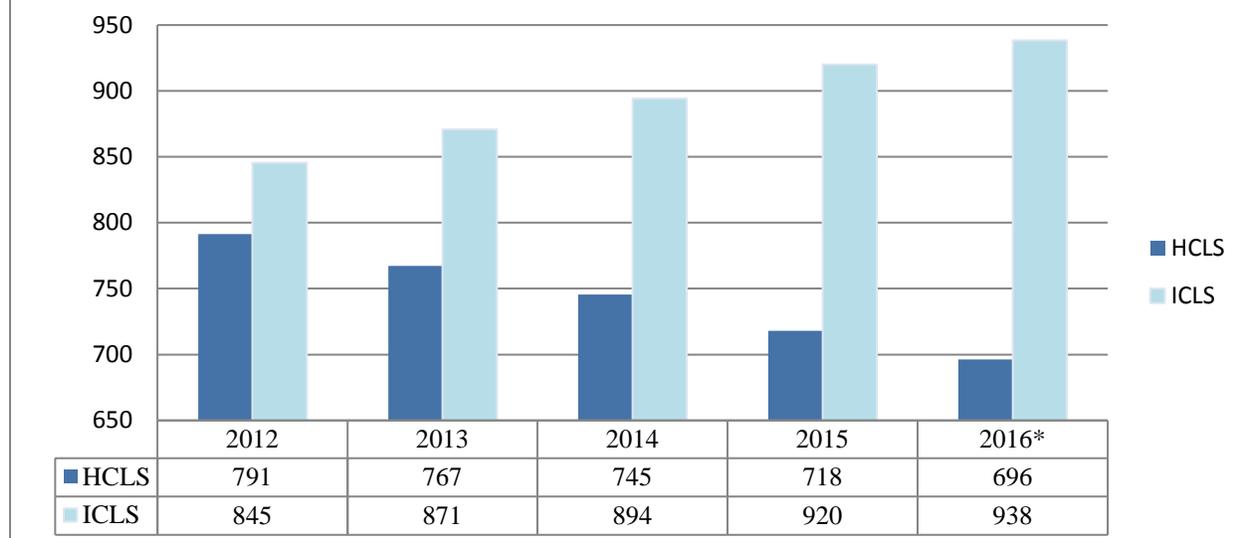
⁷³ *See id.* at 11249, para. 12.

⁷⁴ *Id.*

⁷⁵ Prior to the *USF/ICC Transformation Order*, some price cap carriers received HCLS. Companies received support depending on whether they were classified as either “rural” or “non-rural” under the Commission’s rules (rural companies received high-cost loop support, while non-rural companies received high-cost model support) and how they were regulated at the interstate level (rate-of-return carriers received ICLS, while price cap carriers received interstate access support). *See Connect America Fund et al.*, Notice of Proposed Rulemaking and Further Notice of Proposed Rulemaking, 26 FCC Rcd 4554, 4610, para. 164 (2011). For example, if a price carrier was classified as a “rural” carrier, it would have been eligible to receive HCLS. Thus, one cannot directly compare the HCLS support amounts for the period pre-2012 to the amounts received by rate-of-return carriers post-2012.

Figure 9
Rate-of-Return Carriers HCLS and ICLS Claims
(in \$millions)

(Source: Table 3.3; *2016 is based on annualized January 2016-June 2016 data)



In the *December 2014 Connect America Order*, the Commission adopted its proposal to modify the HCLS mechanism by first freezing the national average cost per loop (NACPL) and then decreasing HCLS proportionately among all HCLS recipients.⁷⁶ Previously, rate-of-return carriers received reimbursement for a fixed percentage of their unseparated loop expenses to the extent that they exceeded a benchmark set in relation to the NACPL.⁷⁷ These rules reimbursed 65 percent of the loop costs in excess of 115 percent, but less than 150 percent of the NACPL, and 75 percent of loop costs in excess of 150 percent of the NACPL.⁷⁸ As noted above, HCLS for rate-of-return carriers is subject to an indexed cap.⁷⁹ Until 2015, the indexed cap was enforced by raising the NACPL used in HCLS calculations until the amount of calculated support equaled the cap amount.⁸⁰ The indexed cap on HCLS had seen steady reductions in recent years as a result of decreasing numbers of working loops and low inflation rates.⁸¹ As a result, carriers with costs close to the ever-rising NACPL risked losing all HCLS for prior

⁷⁶ See *December 2014 Connect America Order*, 29 FCC Rcd at 15679-84, paras. 101-14.

⁷⁷ See 47 CFR § 54.1310. The Commission’s HCLS rules were formerly codified in Part 36, subpart F.

⁷⁸ *Id.*

⁷⁹ *Id.* § 54.1302.

⁸⁰ *Id.* § 54.1309(c)(2).

⁸¹ See National Exchange Carrier Association, Inc. Overview and Analysis of 2013 USF Data Submission, filed September 30, 2014, at 2 (indexed cap on HCLS for 2015 calculated as \$735.2 million); National Exchange Carrier Association, Inc. Overview and Analysis of 2004 USF Submission, filed September 30, 2005 at 3 (indexed cap on HCLS for 2006 calculated at \$1,047.3 million) (both filings available at <http://www.fcc.gov/encyclopedia/necas-overview-universal-service-fund>). During this period, the cap has also been rebased on multiple occasions to reflect the ineligibility of price-cap carriers and their rate-of-return affiliates. See, e.g., *USF/ICC Transformation Order*, 26 FCC Rcd at 17760, paras. 258-59.

investments, while carriers with a higher cost per loop were sheltered from the impact of the HCLS cap.⁸² This created a “race to the top” such that carriers had an incentive to increase their costs to preserve their universal service support and caused some carriers to “fall off the cliff” so that they no longer received any HCLS.

To avoid this effect, in the *December 2014 Connect America Order*, the Commission adopted its proposal to reduce support proportionally among all HCLS recipients through decreased reimbursement percentages for all carriers instead of adjusting the NACPL.⁸³ Specifically, the Commission froze the NACPL that is used to determine support and instead decreased HCLS proportionately among all HCLS recipients.⁸⁴ This change went into effect on July 1, 2015.

Phase Out of Safety Net Additive. In the *USF/ICC Transformation Order*, the Commission decided to phase out a high-cost universal service support mechanism known as the Safety Net Additive (SNA) because it was generally providing support for carriers based on line loss rather than new investment.⁸⁵ The Commission determined that carriers that qualified for SNA support due to a 14 percent or greater increase in investment over the prior year would continue to receive support, while carriers qualifying for SNA based on line loss would have their SNA support eliminated in 2013.⁸⁶ In 2014, the Commission modified this decision to provide SNA support to carriers that would have qualified under the prior rules based on significant network investments made in 2010 and 2011.⁸⁷

⁸² We note that a “higher cost” carrier does not necessarily serve an area that is more costly to serve than other areas. To the extent a carrier is experiencing access line loss, for whatever reason, its cost per loop will rise because the total costs for the study area are divided by a smaller number. Thus, two study areas with identical cost characteristics could have significantly different reported costs per loop, based on the extent to which customers are “cutting the cord” for their landline voice service. A study area where there are competitive alternatives in fact may have a higher cost per loop, all other things being equal.

⁸³ *December 2014 Connect America Order*, 29 FCC Rcd at 15681, para. 104.

⁸⁴ *Id.*

⁸⁵ *USF/ICC Transformation Order*, 26 FCC Rcd at 17758, para. 252. In 2001, the Commission created SNA to provide further support to incumbent carriers that made significant investment in their infrastructure. The rule provided additional support for the qualifying year and four subsequent years. *See Rural Task Force Order*, 16 FCC Rcd at 11276-81, paras. 77-90.

⁸⁶ *USF/ICC Transformation Order*, 26 FCC Rcd at 17758, para. 252.

⁸⁷ *April 2014 Connect America Order*, 29 FCC Rcd 7051 at 7088-90, paras. 109-115.

Figure 10 below summarizes the phase-down in SNA following the reforms adopted in the *USF/ICC Transformation Order*.

Figure 10						
Safety Net Claims						
(in \$millions)						
(Source: Table 3.3; *2016 is based on annualized January 2016-June 2016 data)						
	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016*</u>
Rate-of-Return Carriers	65.5	48.4	31.4	28.2	20.4	12.1
Price Cap Carriers	10.7	-	-	-	-	-
Total	76.2	48.4	31.4	28.2	20.4	12.1

\$250 per Line Cap. In the *USF/ICC Transformation Order*, the Commission adopted a new rule establishing a presumptive per-line cap of \$250 per month on total high-cost universal service support, exclusive of Connect America Fund ICC support for all ETCs.⁸⁸ The Commission concluded that support in excess of that amount should not be provided without further justification.⁸⁹ Incumbent ETCs were subject to a phase-down to bring their support to the \$250 cap between July 1, 2012 and June 30, 2014. The cap became fully effective on July 1, 2014.

Figure 11 shows total high-cost support per line for 2015 for the companies receiving the highest amounts per line and which of those companies have requested a waiver of the presumptive cap. Some study areas with legacy support below \$3,000 annually are included because the sum of legacy and Connect America Fund ICC support is in excess of \$3,000 per year.

⁸⁸ 47 CFR § 54.302.

⁸⁹ *USF/ICC Transformation Order*, 26 FCC Rcd at 17765, para. 274.

Figure 11⁹⁰
Incumbent Study Areas with Annual High-Cost Support per Line Exceeding \$3000 in 2015

Study Area Name	State	Waiver Disposition	Legacy High Cost Per Line	Total High Cost Per Line (Legacy + CAF/ICC)
ADAK TEL UTILITY	AK	Denied	\$3,275	\$5,797
AGATE MUTUAL TEL CO	CO		\$2,890	\$3,220
ALLBAND COMMUNICATIONS COOPERATIVE	MI	Denied	\$7,290	\$7,599
BACA VALLEY TEL CO	NM		\$3,000	\$3,149
BEAVER CREEK TELEPHONE COMPANY	WA		\$3,000	\$4,401
BEEHIVE TEL CO - NV	NV		\$2,984	\$5,361
BEEHIVE TEL CO - UT	UT		\$2,944	\$4,895
BIG BEND TEL CO INC	TX	Petition Withdrawn	\$2,872	\$3,015
BORDER TO BORDER	TX	Dismissed	\$3,000	\$3,981
CUNNINGHAM TEL CO	KS		\$3,000	\$3,099
DELL TEL. CO-OP - TX	TX	Dismissed	\$3,000	\$3,340
ELKHART TEL CO INC	KS		\$2,971	\$3,178
FARBER TEL CO	MO		\$3,000	\$3,280
HARTMAN TEL EXCH INC	NE		\$2,463	\$3,056
HOME TEL CO	KS		\$2,912	\$3,129
KANOKLA TEL ASSN-KS	KS		\$2,919	\$3,020
KANOKLA TEL ASSN-OK	OK		\$2,875	\$3,031
LA HARPE TEL CO INC	KS		\$3,000	\$3,443
LAKE LIVINGSTON TEL	TX		\$2,678	\$3,016
LEACO RURAL TEL COOP	NM		\$2,731	\$3,089
LEAF RIVER TEL CO	IL		\$3,000	\$3,514
MUTUAL TEL CO	KS		\$2,935	\$3,174
NORTH STATE TEL CO.	OR		\$3,000	\$3,171
NUNN TEL CO	CO		\$2,972	\$3,148
OREGON TEL CORP	OR		\$2,505	\$3,327
OREGON-IDAHO UTIL.	OR		\$2,994	\$3,868
PINE TEL SYSTEM INC.	OR		\$2,997	\$3,861
RICE BELT TEL CO	AR		\$2,905	\$3,361
RIVIERA TEL CO INC	TX		\$2,873	\$3,176
S. CENTRAL TEL - OK	OK	Dismissed	\$3,000	\$3,145
SANDWICH ISLES COMM.	HI	Denied	\$2,967	\$4,450
SHAWNEE TELEPHONE CO	IL		\$3,000	\$3,411
SOUTH PARK TEL. CO.	CO	Petition Withdrawn	\$3,000	\$3,652

⁹⁰ Some study areas with support on the threshold of the \$3,000 annual per-line cap that received reduced support may not appear in Figure 11 because this Figure is based on line counts that differ from how support per-line has been traditionally calculated. See Monitoring Report Supplemental Table S.3.3. HC RoR Claims per Line - by Study Area.

Figure 11⁹⁰
Incumbent Study Areas with Annual High-Cost Support per Line Exceeding \$3000 in 2015

Study Area Name	State	Waiver Disposition	Legacy High Cost Per Line	Total High Cost Per Line (Legacy + CAF/ICC)
SOUTHERN MONTANA TEL	MT		\$2,938	\$3,214
SUMMIT TEL & TEL -AK	AK		\$3,000	\$3,481
TERRAL TEL CO	OK		\$2,739	\$4,100
TRI-COUNTY TEL ASSN	KS		\$3,014	\$3,088
WESTGATE COMMUNICATIONS LLC D/B/A WEAVTEL	WA		\$2,516	\$4,886
XIT RURAL TEL CO-OP	TX		\$2,933	\$3,153
ZENDA TEL COMPANY	KS		\$3,000	\$3,519

Figure 12 shows total support reductions from 2012-2016 as a result of implementation of the \$250 per-month, per-line cap. The legacy support per-line figures in Figure 11 would have been higher without these reductions.

Figure 12
High-Cost Support Reductions As Result of \$250 per-month Cap

(Source: USAC Claims Data; *2016 is based on annualized January 2016-June 2016 data)

Study Area Name	State	2012	2013	2014	2015	2016*
ACCIPITER COMM.	AZ	360,162	0	0	117,180	0
ADAK TEL UTILITY	AK	207,984	517,536	1,002,762	1,112,603	948,288
AGATE MUTUAL TEL CO	CO	28,464	89,751	120,461	86,898	0
BACA VALLEY TEL CO	NM	0	75,930	214,740	103,974	0
BEAVER CREEK TELEPHONE COMPANY	WA	63,672	0	0	31,920	3,588
BEEHIVE TEL CO - NV	NV	3,690	56,019	219,904	295,236	241,332
BEEHIVE TEL CO - UT	UT	0	102,108	0	0	0
BIG BEND TEL CO INC	TX	86,376	0	0	0	0
BLUE VALLEY TELE-COM	KS	58,806	0	0	0	0
BORDER TO BORDER	TX	185,058	469,428	763,377	863,592	835,368
CUNNINGHAM TEL CO	KS	0	24,102	137,705	198,534	0
DELL TEL. CO-OP - TX	TX	361,482	830,058	1,304,048	1,461,696	786,792
ELKHART TEL CO INC	KS	0	0	34,860	0	0
FARBER TEL CO	MO	0	0	24	98,772	38,940
KANOKLA TEL ASSN-OK	OK	0	72,948	0	0	0
LA HARPE TEL CO INC	KS	23,412	56,733	229,095	118,128	0
LAKE LIVINGSTON TEL	TX	0	0	0	0	39,948
LAKESIDE TEL. CO.	MS	0	4,287	0	37,104	75,276
LEAF RIVER TEL CO	IL	0	0	0	140,484	0
MIDVALE-AZ	AZ	0	14,646	0	0	0
MUTUAL TEL CO	KS	43,962	162,163	211,790	0	0
NORTH STATE TEL CO.	OR	56,364	122,073	281,208	333,780	182,592

Figure 12						
High-Cost Support Reductions As Result of \$250 per-month Cap						
(Source: USAC Claims Data; *2016 is based on annualized January 2016-June 2016 data)						
NORTHEAST LOUISIANA	LA	0	0	0	21,715	188,484
NUNN TEL CO	CO	0	0	31,290	9,900	0
OREGON-IDAHO UTIL.	OR	0	45,045	57,906	113,418	0
PINE TEL SYSTEM INC.	OR	241,932	909,114	1,831,040	2,067,330	1,283,184
RICE BELT TEL CO	AR	0	0	0	111,258	0
RIVIERA TEL CO INC	TX	0	0	0	0	185,676
S. CENTRAL TEL - OK	OK	108,090	250,473	456,714	542,592	343,560
SACRED WIND	NM	210,018	271,686	0	0	0
SANDWICH ISLES COMM.	HI	2,262,804	5,471,796	6,944,697	3,747,006	0
SHAWNEE TELEPHONE CO	IL	0	0	0	417,941	143,880
SOUTH PARK TEL. CO.	CO	64,698	136,581	218,992	185,130	144,300
SOUTHERN MONTANA TEL	MT	0	20,946	190,136	0	0
ST JOHN TEL CO	WA	8,832	1,119	0	0	0
SUMMIT TEL & TEL -AK	AK	27,876	79,449	100,947	217,344	92,508
TERRAL TEL CO	OK	78,624	225,435	480,793	1,041,288	1,053,000
TRI-COUNTY TEL ASSN	KS	0	0	526,711	346,044	0
WESTGATE COMMUNICATIONS LLC D/B/A WEAATEL	WA	52,014	123,813	231,600	178,176	97,752
XIT RURAL TEL CO-OP	TX	0	12,492	0	39,198	157,104
ZENDA TEL COMPANY	KS	0	0	98,351	216,492	196,572
Total		4,534,320	10,145,731	15,689,151	14,254,733	7,038,144

Petitions for Waiver. In the *USF/ICC Transformation Order*, the Commission stated that any carrier negatively affected by the universal service reforms could file a petition for waiver to demonstrate that good cause exists for exempting the carrier from some or all of those reforms.⁹¹ In the *Fifth Order on Reconsideration*, the Commission clarified that it would consider the impact of reforms not only on voice service alone, but also on the continued operation of a broadband-capable network and on consumer rates.⁹²

Since the *USF/ICC Transformation Order*, some rate-of-return carriers (including their affiliated competitive ETCs) have requested waivers of high-cost support reductions, including several who requested a waiver of the \$250 per-line, per-month cap. The supplementary material describes the disposition of all such waiver requests.⁹³

⁹¹ *Id.* at 17840, para. 539.

⁹² It further stated that it envisioned granting relief only in those circumstances in which a carrier could demonstrate that consumers face a significant risk of losing access to a broadband-capable network that provides both voice as well as broadband, at reasonably comparable rates, in areas where there are no alternative providers of voice or broadband. *Connect America Fund et al.*, Fifth Order on Reconsideration, 27 FCC Rcd 14549, 14556-57, paras. 20-21 (2012) (*Fifth Order on Reconsideration*).

⁹³ See Supplemental Material File “Petitions Seeking Waiver of Support Reductions.docs.”

Other Reforms Stemming From the USF/ICC Transformation Order

Study Area Boundary Collection. In November 2012, the Bureau adopted an order requiring incumbent LECs to submit study area boundary data necessary to implement universal service reforms, including elimination of support where an unsubsidized competitor offers voice and broadband service that 100 percent overlaps an incumbent LEC's study area.⁹⁴ The Bureau subsequently received study area boundary maps from all incumbent LECs and conducted a process to resolve and minimize overlaps among study areas.

Incumbent LECs are required to file updated study area boundary data by a specified deadline if any changes are made to their study area boundaries the previous calendar year. All incumbent LECs are also required to recertify their study area boundary data every two years.⁹⁵

Pricing of Services. Section 254(b) of the Act requires that “[c]onsumers in all regions of the Nation . . . should have access to telecommunications and information services . . . that are available at rates that are reasonably comparable to rates charged for similar services in urban areas.”⁹⁶ In the *USF/ICC Transformation Order*, the Commission adopted a rule to limit high-cost support where end-user rates do not meet an urban rate floor representing the national average of local rates plus state regulated fees.⁹⁷ To the extent a carrier's end-user rates for local service do not meet the rate floor, dollar-for-dollar reductions in HCLS or frozen support are made.⁹⁸ The Commission determined it was inappropriate to use limited federal high-cost support to subsidize local rates beyond what is necessary to ensure reasonable comparability.⁹⁹ The Commission's rule phased in the rate floor in three steps, beginning with an initial rate floor of \$10 for the period July 1, 2012 through June 30, 2013; \$14 for the period July 1, 2013 through June 30, 2014; and an amount to be established through the annual rate survey for the years beginning July 1, 2014, and thereafter.¹⁰⁰

The *USF/ICC Transformation Order* defined the average urban rate to include local end-user rates plus state regulated fees (specifically, state subscriber line charges (SLCs), state USF, and mandatory extended area service charges) and excluded the federal SLC.¹⁰¹ On April 3, 2013, the Bureau adopted the form and content for the survey of urban rates for fixed voice and fixed broadband residential

⁹⁴ *Connect America Fund; High-Cost Universal Service Support*, Report and Order, 27 FCC Rcd 13528, 13529, para. 2 (WCB 2012). See also *Wireline Competition Bureau Publishes Online Map of Submitted Study Area Boundaries, Announces Procedures for Filing Revised Data*, Public Notice, 28 FCC Rcd 16315 (WCB 2013).

⁹⁵ See *Wireline Competition Bureau Extends the Filing Deadline For Study Area Boundary Changes to March 23, 2015 and Sets Recertification Date of May 26, 2015*, Public Notice, 30 FCC Rcd 2239 (WCB 2015).

⁹⁶ 47 U.S.C. § 254(b)(3).

⁹⁷ *USF/ICC Transformation Order*, 26 FCC Rcd at 17749, 17751, paras. 235, 238; see also 47 CFR § 54.318.

⁹⁸ *USF/ICC Transformation Order*, 26 FCC Rcd at 17752, para. 240.

⁹⁹ *Id.* at 17751, para. 237.

¹⁰⁰ *Id.* at 17751, para. 239.

¹⁰¹ *Id.* at 17751, para. 238.

services.¹⁰² The Bureau has completed the surveys for 2014, 2015 and 2016.¹⁰³ Completed surveys that will be used to determine the relevant benchmarks for 2017 were due October 25, 2016.¹⁰⁴ For 2016, the Bureau calculated that the average local end-user rates plus state regulated fees of the surveyed incumbent LECs in urban areas is \$21.93.¹⁰⁵

Because the survey average was more than four dollars higher than the Commission anticipated in 2011, in April 2014, the Commission adopted a phase-in of support reductions associated with the rate floor such that reductions cannot increase more than \$2 annually.¹⁰⁶ In addition, the Commission determined that there should be no support reductions associated with lines provided to customers enrolled in the Lifeline program.¹⁰⁷ It postponed implementation of the support reductions associated with the 2014 rate floor until January 1, 2015. Accordingly, for calendar year 2014, 2015, and 2016 support reductions only occurred for those lines with rates below the appropriate phased-in limit, as shown in Figure 12 below.

Figure 13					
Reduction in High-Cost Loop Claims and Frozen Support Claims due to the Rate Floor					
(Source: Supplementary Material in file named <i>HC Rate Floor Reductions - by Study Area.xlsx</i> ; *Note that 2016 price cap reductions are all for Alaska Communications Systems. 2015 reductions almost all occurred in the 1st half.					
	2012	2013	2014	2015	2016*
Price Cap	39,600	1,525,044	3,369,624	1,652,542	10,296
Rate of Return	515,958	1,277,538	1,091,783	1,799,271	1,289,772
Total	555,558	2,802,582	4,461,407	3,451,813	1,300,068

In the *USF/ICC Transformation Order*, the Commission also determined that “ETCs must offer voice telephony service, including voice telephone service offered on a standalone basis, at rates that are reasonably comparable to urban rates”¹⁰⁸ and adopted a presumption that “a voice rate is within a reasonable range if it falls within two standard deviations above the national average.”¹⁰⁹ Based on the 2016 survey responses, the Bureau calculated the reasonable comparability benchmark for voice services

¹⁰² *Connect America Fund*, Order, 28 FCC Rcd 4242 (WCB and WTB 2013).

¹⁰³ All information regarding the survey and survey results is available at <https://www.fcc.gov/encyclopedia/urban-rate-survey-data>.

¹⁰⁴ *Wireline Competition Bureau Announces Timeline for Completion of 2017 Urban Rate Survey*, Public Notice, 31 FCC Rcd 10729 (WCB 2016).

¹⁰⁵ See *Wireline Competition Bureau Announces Results of 2016 Urban Rate Survey for Fixed Voice and broadband Services and Posting of Survey Data and Explanatory Notes*, Public Notice, 31 FCC Rcd 3393 (WCB 2016) (*2016 Benchmark PN*). Because the Bureau has found that recurring monthly rates collected in the survey from non-incumbent LEC providers typically were higher than incumbent LEC reported recurring monthly rates (possibly because non-incumbent LEC providers charged rates similar to the incumbent LECs’ monthly charge plus the federal SLC), the Bureau calculates the average using only urban incumbent LEC rates.

¹⁰⁶ *April 2014 Connect America Order*, 29 FCC Rcd at 7077-80, paras. 77-81.

¹⁰⁷ *Id.* at 7081-82, para. 86.

¹⁰⁸ *USF/ICC Transformation Order*, 26 FCC Rcd at 17693, para. 81.

¹⁰⁹ *Id.* at 17694, para. 88.

to be \$41.07 for 2016.¹¹⁰ For purposes of the reasonable comparability benchmark, the Bureau concluded that the rates of all local flat-rate providers (both incumbent LEC and non-incumbent LEC providers) should be included when computing the average, and, consistent with existing precedent, that federal SLCs should be included.¹¹¹ In addition, each ETC, including competitive ETCs providing fixed voice services,¹¹² is required to certify in the FCC Form 481 that the pricing of its basic residential voice services was no more than the reasonable comparability benchmark, or if not provide an explanation.¹¹³

In the *USF/ICC Transformation Order*, the Commission also required that as a condition of receiving high-cost or Connect America Fund support, recipients must offer broadband services in supported areas at rates that are reasonably comparable to rates for similar services in urban areas.¹¹⁴ The Commission concluded that rural broadband rates would be deemed “reasonably comparable” to urban rates under section 254(b)(3) if they fell within a reasonable range of urban rates for reasonably comparable broadband service and directed the Wireline Competition Bureau and Wireless Telecommunications Bureau to develop a specific methodology for defining that reasonable range.¹¹⁵

In 2014, the Wireline Competition Bureau adopted a weighted linear regression method to obtain an average rate for fixed services based on download speed, upload speed, and usage allowance.¹¹⁶ The benchmark for a fixed service is calculated by adding twice the standard deviation to the average rate.¹¹⁷ Examples of the average rate and reasonable comparability benchmark for a range of fixed broadband service offerings in 2016 are below.¹¹⁸

¹¹⁰ See *2016 Benchmark PN*. The *USF/ICC Transformation Order* defined the average urban rate to include local end-user rates plus state regulated fees (specifically, state subscriber line charges (SLCs), state universal service, and mandatory extended area service charges). *USF/ICC Transformation Order*, 26 FCC Rcd at 17751, para. 238.

¹¹¹ *Id.*

¹¹² The Bureau has adopted a benchmark only for fixed voice services because “the differences in rate plans and other attributes of fixed and mobile services would make it inordinately difficult to create a unified benchmark” that applied to both fixed and mobile services. See *Connect America Fund*, Order, 28 FCC Rcd 4242, para. 6 (WCB 2014).

¹¹³ 47 CFR § 54.313(a)(10); see also *USF/ICC Transformation Order*, 26 FCC Rcd at 18046-47, para. 1026. In the *USF/ICC Transformation Order*, the Commission required that as a condition of receiving high-cost support, ETCs must offer voice and broadband services in supported areas at rates that are reasonably comparable to rates for similar services in urban areas. *USF/Transformation Order*, 26 FCC at 17693, 17695, paras. 81, 86.

¹¹⁴ *USF/ICC Transformation Order*, 26 FCC Rcd at 17693, 17695, paras. 81, 86. See also 47 U.S.C. § 254(b).

¹¹⁵ *USF/ICC Transformation Order*, 26 FCC Rcd at 17704, para. 113.

¹¹⁶ *Connect America Fund*, Report and Order, 29 FCC Rcd 13485 (WCB 2014). Previously, the Bureau had solicited comment on a Staff Report discussing potential methodologies for determining the average urban rate for fixed broadband services. *Wireline Competition Bureau Announces Posting of Broadband Data from Urban Rate Survey and Seeks Comment on Calculation of Reasonable Comparability Benchmark for Broadband Services*, Public Notice, 29 FCC Rcd 7992, Staff Report at 5-6 (WCB 2014) (*Urban Rate Survey Public Notice*).

¹¹⁷ *Urban Rate Survey Public Notice*, 29 FCC Rcd 7992, Staff Report at 3.

¹¹⁸ See FCC, Reasonable Comparability Benchmark Calculator, <https://www.fcc.gov/general/reasonable-comparability-benchmark-calculator> (last visited Dec. 21, 2016). The Wireless Telecommunications Bureau reviews mobile rates as part of its Mobile Competition Report, which describes the practice of carriers to offer nationwide pricing plans with no pricing disparity between rural and urban markets. See *implementation of Section 6002(B) of the Omnibus Budget Reconciliation Act of 1993*, Nineteenth Report, 31 FCC Rcd 10534, 10597, para. 81, fn. 227 (2016).

Figure 14
Summary of Fixed Broadband Results of the Urban Rates Survey
 (Source: 2016 Urban Rates Survey data)

Download Speed (Mbps)	Upload Speed (Mbps)	Usage Allowance (GB)	Benchmark
10	1	100	\$69.14
10	1	150	\$71.17
10	1	250	\$73.72
10	1	Unlimited	\$75.20
25 ¹¹⁹	5	250	\$87.76
25 ¹²⁰	5	Unlimited	\$89.24

Oversight and Accountability. In the *USF/ICC Transformation Order*, the Commission established a uniform national framework for information that ETCs must report to their respective states and the Commission, while affirming that states will continue to play a critical role overseeing ETCs that they designate.¹²¹ The Commission modified and extended existing federal reporting requirements to all ETCs, whether designated by a state or the Commission, to reflect the new public interest obligations.¹²² Specific changes include extending voice reporting requirements to all ETCs, adopting requirements to reflect new broadband obligations, and requiring all ETCs subject to new broadband obligations to file five-year plans.¹²³

In 2013, ETCs began filing their annual reports on a standardized form – FCC Form 481 – with the Commission, USAC, the relevant state commissions, relevant authority in a U.S. Territory, or Tribal governments, as appropriate.¹²⁴ Based in part on those filings, state commissions and ETCs not subject to the jurisdiction of a state commission annually certify to the Commission that high-cost support received was used and will be used for the intended purposes.¹²⁵

In October 2015, the Commission reminded ETCs that they may not include certain types of expenses in their revenue requirement or recover them through high-cost support. Those expenses include the following: personal travel; entertainment; alcohol; food, including but not limited to meals to celebrate personal events, such as weddings, births, or retirements; political contributions; charitable donations; scholarships; penalties or fines for statutory or regulatory violations; penalties or fees for any late payments on debt, loans, or other payments; membership fees and dues in clubs and organizations;

¹¹⁹ The 25 Mbps/5 Mbps benchmarks are applicable to those entities authorized to receive funding for category one projects in the Commission’s rural broadband experiments. *See Rural Broadband Experiments Order*, 29 FCC Rcd at 8779.

¹²⁰ *Id.*

¹²¹ *USF/ICC Transformation Order*, 26 FCC Rcd at 17854, para. 587.

¹²² *See* 47 CFR § 54.313.

¹²³ *Id.* The Commission subsequently eliminated the requirement to file five-year plans when it adopted the requirement that carriers file geolocation data and related certifications in the *Rate-of-Return Reform Order*. *See Rate-of-Return Reform Order*, 31 FCC at 3093, 3098, 3168, paras. 9, 26, 220.

¹²⁴ *Wireline Competition Bureau Announces Filing Deadline of October 15, 2013 for Eligible Telecommunications Carriers to File High-Cost and Low-Income Annual Reports, and Announces Filing Deadline of December 16, 2013 for States and ETCs to File Annual Use Certifications*, Public Notice, 28 FCC Rcd 11252 (WCB 2013).

¹²⁵ *Id.*; *see also* 47 CFR § 54.314.

sponsorships of conferences or community events; gifts to employees; and, personal expenses of employees, board members, family members of employees and board members, contractors, or any other individuals affiliated with the ETC, including but not limited to personal expenses for housing, such as rent or mortgages.¹²⁶

In March 2016, the Commission directed USAC to develop an online portal that will enable carriers subject to broadband deployment obligations to submit on a rolling basis the geocoded locations to which they have deployed facilities capable of delivering voice and broadband services meeting the requisite public interest obligations.¹²⁷ The portal is currently under development, and the Bureau is in the process of seeking Paperwork Reduction Act approval for the filing of location-based information.¹²⁸

Progress towards the Commission's Goals

Broadband Deployment and Adoption. Since adoption of the *USF/ICC Transformation Order*, there has been steady progress in the extent of broadband deployment. As shown in the following charts,¹²⁹ the extent of deployment of broadband of 4 Mbps/1 Mbps and of 10 Mbps/1 Mbps reported by rate-of-return carriers increased from December 2014 to December 2015. Specifically, there was a 4 percent increase in the number of census blocks where the incumbent rate-of-return carrier reported offering fixed service with at least 4 Mbps/1 Mbps speeds, and there was a 10.7 percent increase in the number of census blocks where the incumbent rate-of-return carrier reported offering fixed service with at least 10 Mbps/1 Mbps speeds. During this time period, price cap carriers saw a significant increase in the number of census blocks where they reported the deployment of 4/1 Mbps and 10/1 Mbps — an increase of 32 percent and 23.7 percent respectively.

¹²⁶ *All Universal Service High-Cost Support Recipients are Reminded that Support Must be Used for its Intended Purpose*, Public Notice, 30 FCC Rcd 11821, 11822 (WCB 2015).

¹²⁷ *Rate-of-Return Reform Order*, 31 FCC Rcd at 3117, para. 79.

¹²⁸ *See generally Wireline Competition Bureau Provides Guidance to Carriers Receiving Connect America Fund Support Regarding Their Broadband Location Reporting Obligations*, Public Notice, 31 FCC Rcd 12900 (WCB 2016).

¹²⁹ For Figures 15 and 16, population and housing unit estimates were obtained from the 2010 Census. These estimates were created by summing the population and housing units contained in the Census blocks reported through Form 477. Price Cap and Rate-of-Return study areas are determined using geographic information collected from the FCC study area boundary data collection. Note that a provider that reports deployment in a particular census block may not necessarily offer service to every person and housing unit in the census block.

Figure 15			
Fixed Deployment at Least 4 Mbps Downstream and 1 Mbps Upstream for ILECs (in thousands)			
	Number of Deployed Census Blocks	Population in Deployed Census Blocks	Housing Units in Deployed Census Blocks
Rate-of-Return Carriers			
December 2014	824	9,228	4,325
December 2015	857	9,681	4,527
Price Caps Carriers			
December 2014	2,878	195,661	81,828
December 2015	3,802	222,312	93,972

Figure 16			
Fixed Deployment at Least 10 Mbps Downstream and 1 Mbps Upstream for ILECs (in thousands)			
	Number of Deployed Census Blocks	Population in Deployed Census Blocks	Housing Units in Deployed Census Blocks
Rate-of-Return Carriers			
December 2014	666	8,061	3,747
December 2015	737	8,849	4,114
Price Caps Carriers			
December 2014	2,850	194,557	81,340
December 2015	3,525	215,273	90,893

Similarly, there have been increases in the number of fixed broadband service customer subscriptions, for both rate-of-return and price cap carriers. As shown in the figures below, between 2014 and 2015, rate-of-return carriers had a 15 percent increase in subscription to fixed services of at least 4 Mbps/1 Mbps and a 32 percent increase for fixed services of at least 10 Mbps/1 Mbps, while subscription for price cap carriers increased by 19 percent for fixed services of at least 4 Mbps/1 Mbps and increased by 15 percent increase for fixed services of at least 10 Mbps/1 Mbps.

Figure 17			
Fixed Connections at Least 4 Mbps Downstream and 1 Mbps Upstream for ILECs (in thousands)			
	Total	Residential	Business
Rate-of-Return Carriers			
December 2014	1,304	1,168	136
December 2015	1,500	1,354	146
Price Caps Carriers			
December 2014	17,315	16,175	1,140
December 2015	20,595	19,169	1,426

Figure 18			
Fixed Connections at Least 10 Mbps Downstream and 1 Mbps Upstream for ILECs (in thousands)			
	Total	Residential	Business
Rate-of-Return Carriers			
December 2014	715	644	71
December 2015	943	853	90
Price Caps Carriers			
December 2014	15,338	14,337	1,001
December 2015	17,641	16,430	1,211

In contrast, as shown below, over the same period the number of switched access lines and interconnected VoIP subscribers served by incumbent LECs has decreased.

Figure 19		
Switched Access Lines and Interconnected VoIP Subscribers for Incumbent Local Exchange Carriers		
(connections in thousands)		
(Source: FCC Form 477 Submission)		
	Rate of Return Carriers	Price Cap Carriers
December 2010	4,635	92,862
December 2011	4,495	84,932
December 2012	4,268	77,846
December 2013	4,123	70,959
December 2014 ¹³⁰	3,882	65,500
December 2015	3,747	59,930

¹³⁰ Revised from 2015 Monitoring Report.