

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Modernizing the E-rate)	WC Docket No. 13-184
Program for Schools and Libraries)	
)	
Schools and Libraries Universal Service)	CC Docket No. 02-6
Support Mechanism)	

REPORT

Adopted: October 2, 2017**Released: October 2, 2017**

By the Wireline Competition Bureau:

I. INTRODUCTION

1. The Wireline Competition Bureau (Bureau) presents this report on voice services in the schools and libraries universal service support mechanism (more commonly known as the E-rate program), as directed by the Commission in its *2014 E-rate Order*.¹ During the phasedown of voice services which began in funding year 2015, fewer applicants have applied for voice services, though most of the applicants who no longer apply for voice services continue to seek E-rate support for other services. Further, the majority of the applicants who did not receive E-rate support for any service other than voice services in funding year 2014 now receive E-rate support for services other than voice.

II. BACKGROUND

2. Under the E-rate program, eligible schools, libraries, and consortia that include eligible schools and libraries may apply for discounts for eligible services, which include telecommunications services, telecommunications, Internet access, internal connections, basic maintenance of internal connections, and managed internal broadband services.² In the *2014 E-rate Order*, the Commission took steps to change the E-rate program by focusing support on broadband to and within schools and libraries.³ In that Order, the Commission began a phasedown of voice services, which accounted for approximately one-third of all E-rate support in funding year 2013.⁴

3. The Commission phased down support for voice services over a four-year period.⁵ Beginning in funding year 2015, discount rates for voice services have decreased by twenty percentage

¹ *Modernizing the E-rate Program for Schools and Libraries*, WC Docket No. 13-184, Report and Order and Further Notice of Proposed Rulemaking, 29 FCC Rcd 8870, 8928, para. 143 (2014) (*2014 E-rate Order*).

² See generally 47 CFR §§ 54.501-54.503. Telecommunications services, telecommunications, and Internet access provide connectivity to a premises and are described as category one services. 47 C.F.R. 54.502(a)(1). Internal connections, basic maintenance of internal connections, and managed internal broadband services provide connectivity within a premises and are described as category two services. 47 C.F.R. 54.502(a)(2).

³ See *2014 E-rate Order*, 29 FCC Rcd at 8894-8934, paras. 63-154.

⁴ See *id.* at 8922, para. 134.

⁵ *Id.* at 8922-23, para. 135.

points each year.⁶ For example, a school district that is eligible for an 80 percent discount for non-voice category one services was eligible for a 60 percent discount on voice services for funding year 2015 and was eligible for a 40 percent discount on voice services for funding year 2016. By funding year 2019, E-rate will no longer support voice services. The phasedown of support for voice services includes local phone service, long distance service, plain old telephone service (POTS), radio loop, 800 service, satellite telephone, shared telephone service, Centrex, wireless telephone service, and interconnected Voice over Internet Protocol (VoIP).⁷

4. In the *2014 E-rate Order*, the Commission directed the Bureau to evaluate the impact of the voice services phasedown on applicants and issue a report to the Commission on its findings after the completion of funding year 2016 and prior to October 1, 2017.⁸ If the Commission takes no further action after the Bureau issues this report, the phasedown will continue until no funding is available for voice services in funding year 2019.⁹

III. DISCUSSION

5. We present our findings on the impact of the voice phasedown for E-rate applicants as a whole and for those applicants who, in 2014, the last year before the phasedown, received support only for voice services.¹⁰ Total E-rate funding commitments have increased, but the amount of E-rate funding supporting voice services for all applicants has dropped and fewer applicants have received support for voice services since the phasedown began.¹¹ Seventy-one percent of the applicants who in funding year 2014 received only voice services now seek E-rate support for other services. Of the total applicants in funding year 2014, only twelve percent no longer apply for E-rate support.

A. Change in Commitments for Voice Services

6. In this section, we address how the phasedown changed E-rate support for applicants as a whole, applicants in different states, rural applicants, and applicants at various discount levels, as well as whether the phasedown caused E-rate applicants to switch from POTS to VoIP services.

1. Effect of Phasedown on Overall Trends

7. The Commission instituted the voice phasedown to focus E-rate funding on high-speed broadband.¹² The total amount of funding committed for all E-rate supported services shifted from \$2.3

⁶ *Id.*

⁷ *Id.* at 8922-28, paras. 135-43. The *2014 E-rate Order* also eliminated support for telephone features, outdated services, and non-broadband services. *Id.* at 8928-33, paras. 144-53.

⁸ *Id.* at 8922-23, 8928, paras. 135, 143.

⁹ *Id.* at 8922, para. 134.

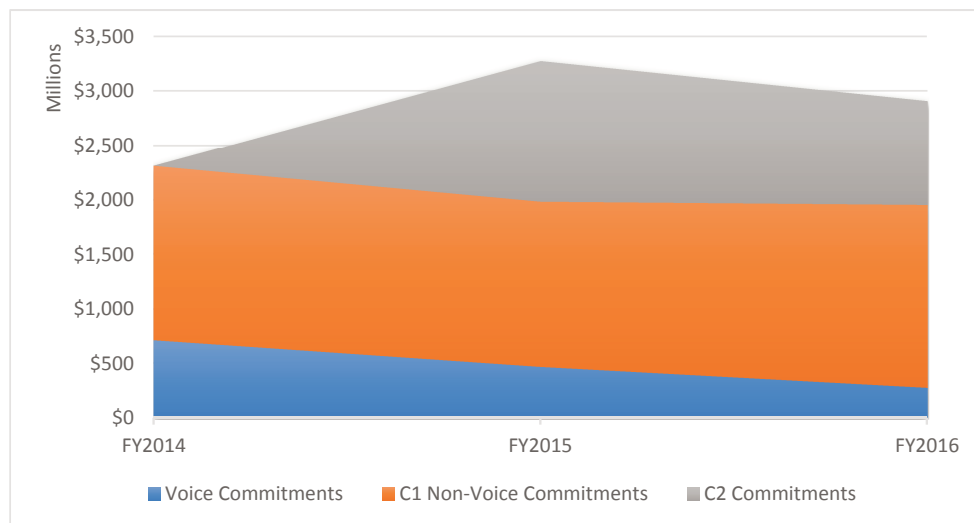
¹⁰ Consistent with the methodology detailed in the Wireline Competition Bureau & Office of Strategic Planning Policy Staff Report, our analysis includes the following product types identified as Fixed Voice services or Mobile Voice Services in the staff report: “800 Service”, “Centrex”, “ISDN-BRI”, “ISDN-PRI”, “Local Phone Service Only”, “Local/Long Distance Phone Service”, “Other Telephone Services”, “POTS”, “Voice Mail”, “Voicemail”, “VoIP”, and “Cellular (including PCS)”. See Wireline Competition Bureau & Office of Strategic Planning Policy Staff Report, WC Docket No. 13-184, Public Notice, 29, FCC Rcd 9644, 9662, n.55 (WCB 2014).

¹¹ For our analysis for funding year 2014, we relied on USAC’s analysis of Item 21 Attachments to determine which funding requests were for voice services. See Bryan P. Boyle, Attorney-Advisor, Telecommunications Access Policy Division, Wireline Competition Bureau, FCC, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 02-6 and WC Docket No. 13-184 (dated Sept. 28, 2017). For our analysis of funding years 2015-16, we relied solely on FCC Form 471 data available to the public on USAC’s website, which indicates the service type for each funding request. See USAC website, Tools, available at <http://www.usac.org/sl/tools/default.aspx> (last visited Sept. 28, 2017).

¹² See *2014 E-rate Order*, 29 FCC Rcd at 8922, para. 134.

billion in funding year 2014, to \$3.3 billion in funding year 2015, to \$2.9 billion in funding year 2016. Over the same time period, the funding committed for voice services dropped significantly and the number of applicants receiving commitments for voice services also declined. Commitments for voice services decreased from a total of \$708 million in funding year 2014, the final year before the phasedown, to \$275 million in funding year 2016 while the percentage of E-rate funding commitments for voice services declined from 31 percent in funding year 2014 to 9 percent in funding year 2016.¹³

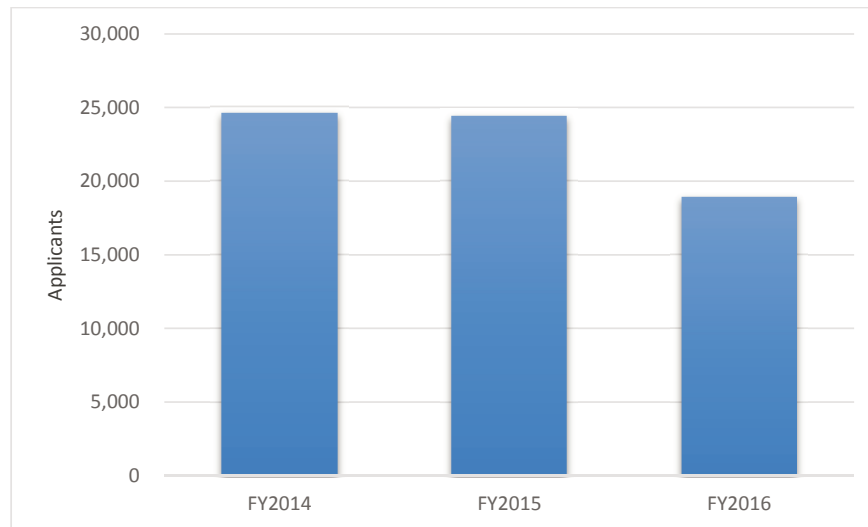
Figure 1
E-rate Funding Commitments
All Applicants
Funding Years 2014-16



8. Along with the decrease in funding for voice services from funding year 2014 to funding year 2016, the number of applicants receiving support for voice services declined from 24,575 in funding year 2014 to 18,884 in funding year 2016.

¹³ See Appendix A.

Figure 2
Number of Applicants Receiving Voice Services
Funding Years 2014-16



2. Effect of Phasedown by State¹⁴

9. Nationwide, total E-rate funding for voice services decreased by 61 percent from funding years 2014 to 2016.¹⁵ The states with the smallest reductions in funding for voice services for that period are Alaska (45 percent), Ohio (45 percent), New Mexico (51 percent), Florida (53 percent), and South Dakota (53 percent). The states with the largest reductions in funding for voice services are Utah (78 percent), Nebraska (73 percent), New Hampshire (71 percent), and Connecticut (71 percent). Details of funding reductions for voice services for each state are shown in Appendix B.

3. Effect of Phasedown on Rural Applicants¹⁶

10. The voice phasedown had a similar impact on urban and rural applicants.¹⁷ We note that the FCC Form 471 for funding year 2014 did not capture the urban/rural status of each site listed on an E-rate application, so it is not possible to determine which sites listed on an application were urban and rural in funding year 2014. Subsequent FCC Forms 471 did ask applicants to report their status as urban or rural. Urban and rural applicants that received a substantial proportion of voice support, which we define as applicants that received at least 25 percent of their total E-rate funding from voice support,¹⁸ in funding

¹⁴ We did not include territories in this analysis. Details of funding reductions for voice services for territories are shown in Appendix B.

¹⁵ See Appendix B.

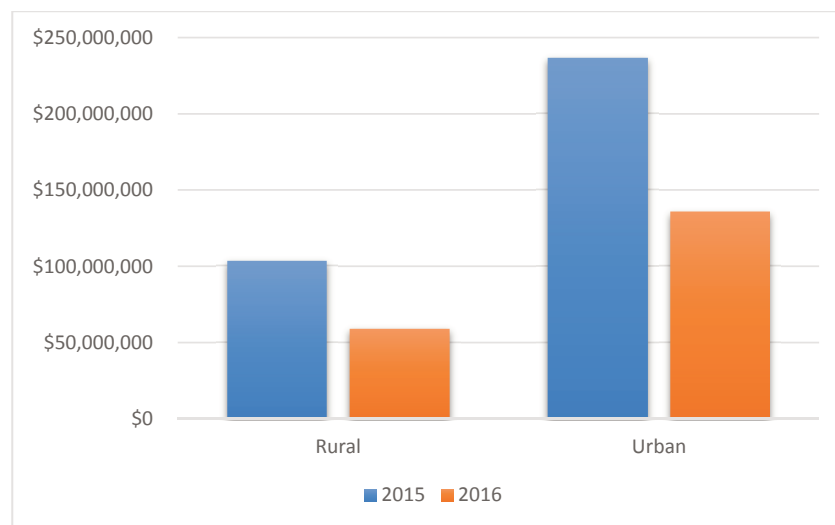
¹⁶ Our analysis compares the effect of the voice phasedown on applicants from funding year 2015 to funding year 2016 only. The FCC Form 471 for funding year 2014 did not capture the urban/rural status of each site listed on an E-rate application, so it is not possible to determine which sites listed on an application were urban and rural in funding year 2014.

¹⁷ This analysis does not include a small number of funding year 2015 applications for which the urban/rural status was not verified, but for which urban/rural status had no impact.

¹⁸ Seventy-five percent of all applicants that received voice service in 2014 passed this 25 percent threshold, and applicants that passed this threshold received 84 percent of all voice funding in 2014.

year 2014 both saw a 43 percent reduction in support for voice services from funding year 2015 to funding year 2016.¹⁹ These applicants experienced a lower reduction in overall commitments than their reduction in commitments for voice services. Among applicants that received a substantial proportion of voice support in funding year 2014, urban applicants experienced a 20 percent reduction in overall funding commitments from funding year 2015 to 2016 while rural applicants experienced a 16 percent reduction.

Figure 3
Funding for Voice Services for Urban and Rural Applicants
Receiving Substantial Support for Voice Services
Funding Years 2015-2016



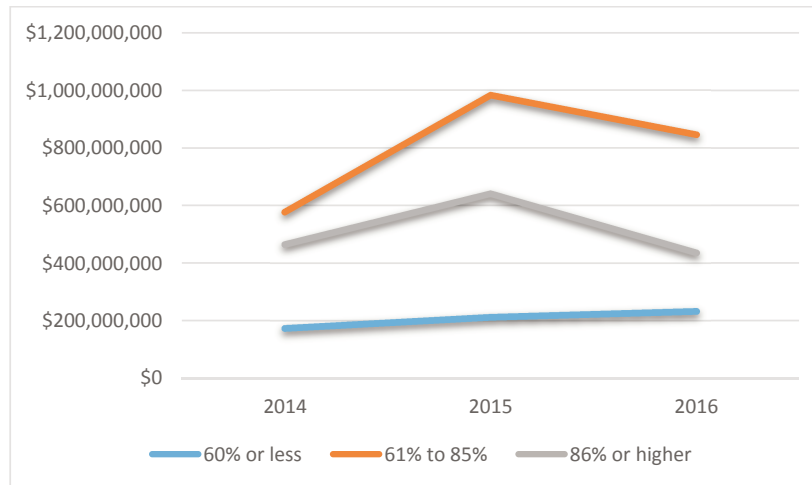
4. Effect of Phasedown by Discount Rate

11. For applicants that received voice services as a substantial proportion of their E-rate support in funding year 2014, applicants with high discount rates²⁰ received six percent less total E-rate support in funding year 2016 than in funding year 2014, while applicants with moderate discount rates experienced a 46 percent increase in overall E-rate support, and applicants with low discount rates experienced a 33 percent increase over the same period.

¹⁹ See Appendix C. The impact of the voice phasedown on applicants that received substantial support for voice is consistent with the impact on applicants as whole. Expanding the scope to all E-rate applicants, urban applicants experienced a 40 percent reduction and rural applicants experienced a 41 percent reduction in support for voice services from funding year 2015 to funding year 2016.

²⁰ Under the Commission's rules, eligible schools and libraries may receive discounts ranging from 20 percent to 90 percent of the pre-discount price of eligible services, based on indicators of need. Schools and libraries in areas with higher percentages of students eligible for free or reduced price lunch through the National School Lunch Program qualify for higher discounts for eligible services than applicants with low levels of eligibility for such programs. 47 C.F.R. § 54.505. We define "high discount rates" as discount rates of 86 percent and higher, "moderate discount rates" as discount rates of 61 percent to 85 percent, and "low discount rates" as discount rates of 60 percent or less. See Appendix D.

Figure 4
Total Funding for Applicants Receiving Substantial Voice Support in FY 2014
By Discount Rate
Funding Years 2014-16



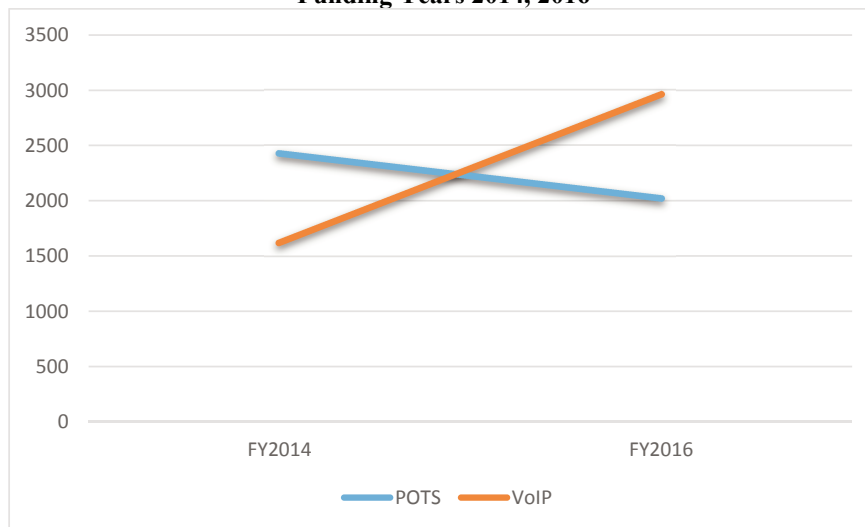
5. Effect of Phasedown on Funding Requests for VoIP

12. Even though fewer applicants have received support for voice services overall since the voice phasedown began, more applicants are using VoIP services now than before the phasedown began. From funding year 2014 to funding year 2016,²¹ the number of applicants seeking support for VoIP services increased 82 percent, while the number of applicants seeking support for POTS decreased 17 percent.²²

²¹ Data on the number of applicants receiving support for VoIP and POTS was unavailable for funding year 2015. Data on the number of applicants receiving support for VoIP and POTS was unavailable in funding year 2015 because the funding year 2015 FCC Form 471 did not capture POTS as a product type. Although the funding year 2014 FCC Form 471 did not capture POTS or VoIP as product types, we identified these product types through data analysis. POTS is a separate product type from Centrex, ISDN/PRI, and local and long distance service.

²² See Appendix E.

Figure 5
Comparison of Applicants Receiving VoIP Services and POTS
Funding Years 2014, 2016



B. Effect of Phasedown on Applicants Previously Receiving Only Voice Services

13. In this section, we address how the voice phasedown affected applicants who received E-rate support in funding year 2014 only for voice services, the last funding year before the phasedown began. Most E-rate applicants that received support for voice services in funding year 2014 still receive voice support. Of the applicants who stopped receiving support for voice services, a significant proportion no longer receive any support. Some applicants who received support only for voice services in funding year 2014 have opted out of the program.

1. Applicants Continuing or Dropping Support for Voice Services

14. Forty-four percent of E-rate applicants who stopped receiving voice support in funding year 2015 continued receiving support for other services and 58 percent of applicants who stopped receiving voice support in funding year 2016 continued receiving support for other services. A significant proportion of applicants, however, continued to receive support for voice services in both funding years 2015 and 2016.

Figure 6
Comparison in E-rate Participation for Applicants that Received Voice Support in FY 2014
Applicants Who Continued Voice Support and Applicants Dropped Voice Support
Funding Years 2015-16

Funding Year	2015	2016
Applicants Who Received Voice Support	22,608	18,041
Applicants Who Stopped Receiving Voice Support	1,967	4,959
- Subset Receiving E-rate Support for Other Services	858 (44%)	2,899 (58%)
- Subset Receiving No E-rate Support	1,109 (56%)	2,060 (42%)

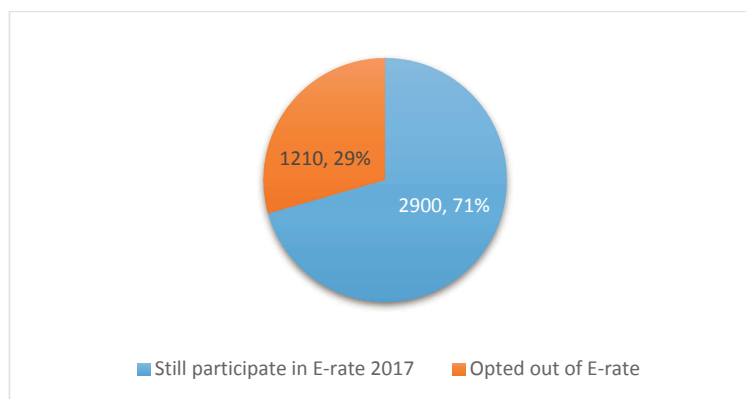
15. Of the E-rate applicants that received support for voice services in funding year 2014, 3,169 did not participate in the E-rate program in funding years 2015 and 2016 (1,109 in funding year 2015 and 2,060 in funding year 2016), representing 12 percent of the total 26,242 E-rate applicants in

funding year 2014. The median discount rate for the 3,169 applicants that opted to no longer participate in the E-rate program was 70% (before the phasedown).

2. Impact on Applicants that Received Support Only for Voice in Funding Year 2014

16. Most of the applicants that received support in funding year 2014 only for voice services continue to participate in the E-rate program. Seventy-one percent of the applicants that received only voice services in funding year 2014 continued to participate in the E-rate program in funding year 2017 and sought support for voice, other services, or both.²³

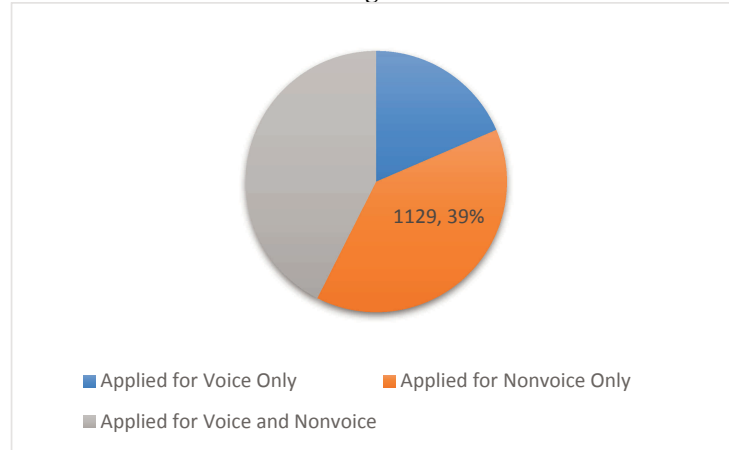
Figure 7
Applicants Receiving Only Voice Support in Funding Year 2014
Participation in Funding Year 2017



17. Of the applicants that continue to seek some form of E-rate support, 18 percent of individual-filer applicants sought only voice services, 39 percent sought only non-voice services, and 43 percent sought both voice and non-voice services.

²³ Some of the entities that continue to participate in the E-rate program no longer file individual applications but instead receive E-rate support as part of a consortium. Of the 2,900 voice-only applicants from funding year 2014 that continue to receive E-rate support, 1,584 still file their own applications and the remaining 1,316 only receive support as part of school district, library system, or consortia applications.

Figure 8
Services Sought in FY 2017 by Applicants Who Received Only Voice Support
in Funding Year 2014



APPENDIX A
E-rate Funding Commitments
All Applicants
Funding Years 2014-16

Funding Year	Voice Commitments	C1 Non-Voice Commitments	C2 Commitments	Total	Voice as Percentage of Total Commitments
2014	\$707,601,798	\$1,603,924,016	\$0	\$2,311,525,814	31%
2015	\$465,313,727	\$1,519,494,101	\$1,287,474,746	\$3,272,282,573	14%
2016	\$274,562,030	\$1,680,793,108	\$950,763,996	\$2,906,119,134	9%

** Category one non-voice commitments includes commitments for all category one services other than voice.*

Applicants Receiving Support for Voice Services
Funding Years 2014-16

Funding Year	Number of Applicants Receiving Support for Voice
2014	24,575
2015	24,388
2016	18,884

APPENDIX B
E-rate Funding Commitments for Voice Services
By State and Territory
Funding Years 2014-16

State	2014	2015	2016	Change (2014-16)
AK	\$2,197,444	\$1,935,248	\$1,218,149	-45%
AL	\$15,265,889	\$9,559,833	\$5,403,392	-65%
AR	\$7,906,926	\$5,022,635	\$3,002,547	-62%
AS	\$278,887	\$229,504	\$170,159	-39%
AZ	\$16,786,477	\$10,546,028	\$6,051,090	-64%
CA	\$95,157,002	\$66,876,656	\$42,772,057	-55%
CO	\$6,497,441	\$4,146,013	\$2,712,956	-58%
CT	\$10,242,466	\$5,769,906	\$3,007,078	-71%
DC	\$4,854,502	\$2,833,507	\$2,130,260	-56%
DE	\$1,207,614	\$833,021	\$433,917	-64%
FL	\$21,802,035	\$16,745,082	\$10,202,673	-53%
GA	\$21,813,443	\$14,474,313	\$9,104,914	-58%
GU	\$268,458	\$222,223	\$135,300	-50%
HI	\$2,472,403	\$1,775,402	\$1,012,396	-59%
IA	\$4,880,818	\$2,987,396	\$1,676,903	-66%
ID	\$3,071,863	\$2,000,849	\$1,212,155	-61%
IL	\$35,132,299	\$21,380,663	\$12,272,979	-65%
IN	\$14,663,222	\$9,613,228	\$5,468,510	-63%
KS	\$7,030,449	\$4,111,191	\$2,373,418	-66%
KY	\$12,036,574	\$6,750,984	\$3,950,506	-67%
LA	\$12,135,695	\$7,986,335	\$4,890,653	-60%
MA	\$12,175,623	\$7,335,440	\$4,065,259	-67%
MD	\$14,325,973	\$9,267,138	\$4,620,679	-68%
ME	\$2,918,813	\$1,826,146	\$1,176,549	-60%
MI	\$22,156,220	\$13,732,835	\$7,619,954	-66%
MN	\$9,420,090	\$6,021,929	\$3,532,346	-63%
MO	\$13,623,707	\$9,719,800	\$5,339,184	-61%
MP	\$86,252	\$248,706	\$171,333	99%
MS	\$8,412,441	\$5,242,579	\$2,949,362	-65%
MT	\$1,955,764	\$1,340,923	\$733,662	-62%
NC	\$24,009,056	\$15,431,407	\$9,270,813	-61%
ND	\$1,294,817	\$813,705	\$471,359	-64%
NE	\$3,136,490	\$1,796,649	\$861,044	-73%
NH	\$1,954,688	\$1,165,618	\$570,764	-71%
NJ	\$27,134,318	\$18,412,285	\$8,373,593	-69%
NM	\$6,401,801	\$5,231,620	\$3,123,636	-51%

NV	\$2,689,357	\$1,370,744	\$801,755	-70%
NY	\$48,730,682	\$28,896,290	\$20,904,921	-57%
OH	\$22,102,592	\$20,094,851	\$12,092,471	-45%
OK	\$14,022,055	\$8,449,227	\$4,814,732	-66%
OR	\$5,558,719	\$3,738,349	\$2,316,237	-58%
PA	\$25,935,144	\$14,824,375	\$7,794,940	-70%
PR	\$3,318,186	\$2,487,099	\$1,600,913	-52%
RI	\$1,806,996	\$1,235,707	\$658,164	-64%
SC	\$12,036,639	\$7,694,406	\$4,707,158	-61%
SD	\$1,800,881	\$1,454,520	\$839,269	-53%
TN	\$14,658,237	\$9,524,354	\$5,631,153	-62%
TX	\$65,596,410	\$43,376,610	\$24,638,667	-62%
UT	\$3,778,744	\$1,735,497	\$814,993	-78%
VA	\$13,462,919	\$8,603,669	\$4,327,105	-68%
VI	\$601,128	\$415,154	\$330,301	-45%
VT	\$1,570,386	\$1,082,875	\$637,245	-59%
WA	\$11,768,735	\$8,346,129	\$4,766,820	-59%
WI	\$8,311,380	\$5,173,648	\$2,685,943	-68%
WV	\$3,906,083	\$2,613,304	\$1,691,292	-57%
WY	\$1,238,569	\$810,122	\$426,402	-66%
Nationwide	\$707,601,798	\$465,313,727	\$274,562,030	-61%

APPENDIX C

E-rate Funding Commitments
Funding Years 2015-16²⁴

Applicants Receiving a Substantial Proportion of Voice Support

Status	Funding Year	Commitment for Voice Services	Commitment for Non-Voice Services	Change in Commitment for Voice Services 2015-16
Rural	2015	\$103,242,144	\$403,556,025	-43%
	2016	\$58,995,657	\$346,056,150	
Urban	2015	\$236,248,552	\$1,077,937,737	-43%
	2016	\$135,346,099	\$973,709,555	

**Applicants receiving a substantial proportion of voice support are those applicants that received at least 25% of total E-rate funding for voice services in funding year 2014.*

All Applicants

Status	Funding Year	Commitment for Voice Services	Commitment for Non-Voice Services	Change in Commitment for Voice Services 2015-16
Rural	2015	\$142,801,960	\$1,039,487,745	-41%
	2016	\$84,609,972	\$987,122,845	
Urban	2015	\$317,300,973	\$1,751,224,946	-40%
	2016	\$189,952,058	\$1,644,434,259	

²⁴ Commitments for funding year 2014 are not included in this analysis because the funding year 2014 E-rate application did not capture the urban/rural status of each site listed on the application. *See supra* para. 10. This analysis does not include a small number of funding year 2015 applications for which the urban/rural status was not verified, but for which urban/rural status had no impact.

APPENDIX D
E-rate Funding Commitments
Applicants Substantially Affected by Phasedown
By Discount Rate
Funding Years 2015-16

Funding Year	60% or less	61% to 85%	86% or higher	Total
2014	\$174,680,859	\$577,563,160	\$465,618,263	\$1,217,862,281
2015	\$212,408,667	\$983,090,369	\$641,925,233	\$1,837,424,270
2016	\$232,040,481	\$845,512,369	\$436,554,611	\$1,514,107,462
Change (2014-16)	33%	46%	-6%	24%

APPENDIX E

Applicants Seeking E-rate Support for VoIP and POTS
Funding Years 2014, 2016

Funding Year	VoIP	POTS
2014	1,623	2,429
2016	2,960	2,023
Change (2014-16)	82%	-17%