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

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
ETC Annual Reports and Certifications	)	WC Docket No. 14-58
	)	
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
	)	
Developing a Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92

REPORT AND ORDER, FURTHER NOTICE OF PROPOSED RULEMAKING, AND ORDER ON RECONSIDERATION

Adopted: December 12, 2018 **Released: December 13, 2018**

Comment Date: (30 days after date of publication in the Federal Register)
Reply Comment Date: (60 days after date of publication in the Federal Register)

By the Commission: Chairman Pai and Commissioners O'Rielly, Carr, and Rosenworcel issuing separate statements.

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I. INTRODUCTION

1. In this Report and Order and Further Notice of Proposed Rulemaking (Further Notice), we continue our efforts to bridge the digital divide. According to the Federal Communications Commission's (FCC or Commission) most recently available data, about 30% of rural Americans lack access to fixed, terrestrial high-speed Internet of at least 25 Mbps download/3 Mbps upload (25/3 Mbps),[1] the Commission's current speed benchmark, which reflects consumer demand for high-speed broadband services.[2] In urban areas, that number is 2%.[3] The gap between broadband access in rural and urban areas is unacceptable. We must do better. We have made progress in bringing broadband service to rural Americans living in areas served by our nation's largest telecommunications companies, and will realize additional gains as the winners of the Connect America Fund (CAF) Phase II auction begin to deploy 25/3 Mbps or higher speed service to approximately 713,176 locations.[4] But the rules governing smaller, community-based providers – rate-of-return carriers – have not kept pace, making it more difficult for these carriers to bring 25/3 Mbps service to rural America. Today's Report and Order addresses the challenges that rate-of-return carriers face by taking steps to promote broadband deployment, ensure the efficient use of resources, and provide sufficient and predictable support necessary to increase broadband deployment.

2. By improving access to modern communications services, we can help provide individuals living in rural America with the same opportunities that those in urban areas enjoy. Broadband access is critical to economic opportunity, job creation, education, and civic engagement. And as important as these benefits are in America's cities, they can be even more important in America's more remote small towns and rural and insular areas. Rural Americans deserve to reap the same benefits of the Internet—and not run the risk of falling yet further behind.

3. Today's Report and Order marks a significant next step in closing the digital divide. We recognize that access to 25/3 Mbps broadband service is not a luxury for urban areas, but important to Americans wherever they live. To that end, we adopt additional measures toward our goal of expanding the availability of affordable broadband service to rural America. First, we make another model offer to

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[1] Staff analysis of FCC Form 477 Data, as of June 30, 2017, and FCC population estimates, as of June 30, 2017. These estimates may overstate or understate the estimate of Americans with access to fixed advanced telecommunications services. *See* Federal Communications Commission, Staff Block Estimates, https://www.fcc.gov/reports-research/data/staff-block-estimates (*Staff Analysis of FCC Form 477 Data*).

[2] Data indicate that 59% of residential fixed connections equal or exceed a 25/3 Mbps threshold. *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2018 Broadband Deployment Report, GN Docket No. 17-199, 33 FCC Rcd 1660, 1665, 1667-68, paras. 15, 21 (2018) (*2018 Section 706 Report*).

[3] *Staff Analysis of FCC Form 477 Data*.

[4] Winning bidders have committed to serving over 99.7% of the 713,176 awarded locations with speeds of at least 25/3 Mbps. *Connect America Fund Phase II Auction Closes, Winning Bidders Announced, FCC Form 683 Due October 15, 2018*, Public Notice, DA 18-887 at 1, para. 1 (WCB/WTB Aug. 28, 2018).

those rate-of-return carriers currently receiving Alternative Connect America Cost Model (A-CAM) support for additional funding if they commit to building out to additional locations at speeds of 25/3 Mbps. Second, we make a new model offer to those on legacy support in return for specifically tailored obligations to build out broadband networks providing speeds of 25/3 Mbps. Third, for those rate-of-return carriers remaining on legacy support that do not take the new model offer, we adopt a new budget based on uncapped 2018 claims that will be increased by inflation annually, as well as new deployment obligations that require speeds of 25/3 Mbps rather than 10/1 Mbps. Fourth, we adopt measures to mitigate the regulatory burden on providers and encourage the efficient use of universal service support. Finally, we adopt a Further Notice seeking comment on how to implement an auction mechanism for competitive overlapped legacy rate-of-return areas, broadband-only line conversions, and legacy support in Tribal areas.

4. In an Order on Reconsideration, we deny three petitions seeking reconsideration of the Commission's decision directing the Wireline Competition Bureau (WCB or Bureau) to offer additional support up to $146.10 per-location to all carriers that accepted the revised offers of model-based support.[5]

II. BACKGROUND

5. The high-cost program within the Commission's Universal Service Fund (USF or Fund) implements one of Congress's core universal service policies: that "consumers in all regions of the Nation, including . . . those in rural, insular, and high cost areas . . . have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas."[6] Historically, the high-cost program supported traditional voice services and the Fund reimbursed carriers for a portion of the cost to serve their customers. In 2011, the Commission comprehensively reformed and modernized the program to support networks capable of providing both voice *and* broadband services.[7] Among the actions taken in the *USF/ICC Transformation Order*, the Commission adopted a framework, known as the CAF, to transition most high-cost providers from cost-based regulation to incentive-based support mechanisms, using forward-looking broadband cost models and competitive bidding. Other transformative aspects of the CAF included requiring support recipients to comply with defined deployment obligations meeting minimum performance standards and eliminating support in areas served by unsubsidized competitors.[8]

6. As part of the CAF framework, the Commission established a budget of $4.5 billion for the high-cost program, based on the estimated size of the high-cost program in fiscal year 2011. The

[5] *Connect America Fund* et al., WC Docket No. 10-90 et al., Report and Order, Third Order on Reconsideration, and Notice of Proposed Rulemaking, FCC 18-29, 29-31, paras. 62-68 (rel. Mar. 23, 2018) (*2018 Rate-of-Return Reform Order and NPRM*).

[6] 47 USC § 254(b)(3).

[7] *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*, WC Docket No. 10-90, et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC 17663 (2011) (*USF/ICC Transformation Order*), *aff'd In re: FCC 11-161*, 753 F.3d 1015 (10th Cir. 2014).

[8] The Commission also adopted several goals in the *USF/ICC Transformation Order* 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." *USF/ICC Transformation Order*, 26 FCC Rcd at 17680, para. 48 (footnote omitted).

Commission allocated $2 billion for rate-of-return carriers, an amount "approximately equal" to 2011 levels.[9] The Commission anticipated that it might revisit and adjust accordingly the appropriate size of each of the CAF programs by the end of 2017 "based on market developments, efficiencies realized, and further evaluation of the effect of these programs in achieving [the Commission's] goals."[10]

7. Since 2011, the Commission built upon the policies established in the *USF/ICC Transformation Order* in several subsequent rate-of-return program reform efforts. In March 2016, in the *2016 Rate-of-Return Reform Order*, the Commission provided rate-of-return carriers a voluntary path to electing model-based support using a mechanism like the one adopted for price cap carriers, tailored to reflect the specific requirements in rate-of-return areas. The A-CAM model was used to establish fixed support amounts over a ten-year term in exchange for broadband deployment to a pre-determined number of eligible locations at speeds of 4/1 Mbps, 10/1 Mbps, or 25/3 Mbps.[11] The Commission took steps to target the limited amount of A-CAM support available, and set an initial A-CAM budget of $1.5 billion over the 10-year term, using existing high-cost funds.[12]

8. To award support, the Bureau announced A-CAM offer amounts and deployment obligations predicated on a monthly funding cap of $200 per location.[13] Faced with substantial carrier interest in the offer and excessive demand, however, the Commission later allocated an additional $50 million annually to the A-CAM budget and adopted other measures to ensure that the model-based support stayed within the revised budget.[14] In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission authorized additional support, resulting in a revised offer of over $360 million in high-cost support.[15]

9. Carriers that did not elect to take the A-CAM offer continued to receive support under the existing legacy mechanism. Under that mechanism, carriers may be eligible to recover a portion of their last-mile intrastate costs through high-cost loop support (HCLS),[16] as well as their common line revenue requirements through Connect America Fund Broadband Loop Support (CAF BLS).[17] CAF BLS also

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[9] *Id.* at 17738, para. 195. The Commission allocated up to $1.8 billion in price cap areas, $500 million for the Mobility Fund, and at least $100 million for the highest cost areas.

[10] *Id*. at 17710, para. 123. The Tenth Circuit Court of Appeals affirmed the Commission's decision establishing an overall high-cost budget, including the adoption of the rate-of-return budget of $2 billion, based in part on the Commission taking a fresh look at the budget at the end of six years—in 2017. *In re: FCC 11-161*, 753 F.3d at 1060.

[11] *Connect America Fund, ETC Annual Reports and Certifications, Developing a Unified Intercarrier Compensation Regime,* WC Docket No. 10-90, et al., Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087, 3094-3117, paras. 17-79 (*2016 Rate-of-Return Reform Order*). The Commission directed the Bureau to "take all necessary steps to release the adopted version of the model for purposes of calculating support amounts for rate-of-return carriers electing to receive model support." *Id*. at 3102, para. 37.

[12] *Id*. at 3111, para. 60.

[13] *See Wireline Competition Bureau Announces Support Amounts Offered to Rate-of-Return Carriers to Expand Rural Broadband*, WC Docket No. 10-90, Public Notice, 31 FCC Rcd 8641, 8642 (WCB 2016) (*A-CAM Offer Public Notice*).

[14] *See Connect America Fund*, WC Docket No. 10-90, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 13775, 13776-80, paras. 5-16 (2016) (*A-CAM Revised Offer Order and/or FNPRM*).

[15] *2018 Rate-of-Return Reform Order and NPRM* at 29-31, paras. 62-67. *See Wireline Competition Bureau Announces Offers of Revised A-CAM Support Amounts to 217 Authorized A-CAM Companies to Expand Rural Broadband*, WC Docket No. 10-90, Public Notice, DA 18-465 (WCB rel. May 7, 2018).

[16] Carriers are eligible to receive HCLS support when the cost to provide service exceeds 115% of the national average cost per line. HCLS is subject to an annual indexed cap, which is based on the prior year's rural HCLS and a Rural Growth Factor. HCLS also includes any Safety Net Additive and Safety Valve Support (SNA and SVS).

[17] CAF BLS replaced the Interstate Common Line Support (ICLS) mechanism in 2016. For calculating CAF BLS, the Commission adopted a revenue imputation of $42 per loop per month. *2016 Rate-of-Return Reform Order*, 31

allows carriers to receive support where the customer no longer subscribes to traditional regulated local exchange voice service, i.e., for broadband-only lines. Additionally, on a transitional basis, legacy providers are permitted to recover CAF intercarrier compensation (CAF ICC) support to partially offset reductions in switched access charges—adopted with the goal of transitioning to a bill-and-keep regime.[18]

10. Unless they had already met a certain deployment threshold, legacy carriers must deploy and offer service at actual speeds of at least 10/1 Mbps to a defined number of unserved locations by the end of 2021,[19] and all legacy carriers are subject to the Commission's reasonable request requirement.

11. The *2016 Rate-of-Return Reform Order* also adopted a self-effectuating budget control mechanism[20] that, because support amounts for other rate-of-return carriers are fixed, only affects legacy carriers. During the 2017 budget year, application of the budget control mechanism reduced the support claims of legacy rate-of-return carriers by approximately $180 million, a 13% reduction in support,[21] unevenly distributed among states or carriers because of the way the budget control mechanism is calculated.[22] To mitigate its impact pending a review of the budget, the Commission eliminated the budget control mechanism in the *2018 Rate-of-Return Reform Order and NPRM* for the period of July 2017 to June 2018.[23] This action resulted in $180 million in one-time funding for legacy carriers. In July 2018, the budget control mechanism resumed, so legacy carriers have been seeing support reductions relative to their support claims since that time.

12. The Report and Order we adopt today stems from the *2018 Rate-of-Return Reform Order and NPRM* where the Commission sought comment on a number of further reforms to spur additional broadband deployment in rural areas. Specifically, the Commission initiated its budget review seeking comment on an appropriate support amount that would ensure robust broadband deployment in rate-of-return areas, while minimizing the burden on ratepayers.[24] The Commission asked about whether to fund existing A-CAM support recipients up to a $200 per-location cap (up from $146.10) and what obligations should accompany this additional funding.[25] Additionally, the Commission sought comment on whether to afford a new opportunity for legacy providers to elect model-based support and what conditions would be appropriate.[26] Lastly, the Commission sought comment on other reforms, including, for example, establishing a minimum level of support for carriers receiving legacy support, exploring the need for caps on capital and operating expenses, using an auction process to address substantial competitive overlaps, and other options for simplifying and modernizing legacy support.[27]

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.

[18] *USF/ICC Transformation Order*, 26 FCC Rcd at 17677, para. 36; *id.* at 17934-35, para. 801; *id.* at 17957-58, paras. 850-852.

[19] Carriers that had deployed 10/1 Mbps broadband to 80% or more of the locations in their study area were not made subject to defined deployment obligations. *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3152, para. 173.

[20] *Id*. at 3142-44, paras. 146-153.

[21] *See* USAC, Budget Control Mechanism for Rate-of-Return Carriers, https://www.usac.org/hc/rules-and-orders/budget-control-rate-of-return.aspx (last visited Dec. 12, 2018).

[22] *2018 Rate-of-Return Reform Order and NPRM* at 35, para. 78.

[23] *Id*. at 34-36, paras. 73-82.

[24] *Id*. at 43-46, paras. 103-116.

[25] *Id*. at 45, 53, para. 110, 142.

[26] *Id*. at 46-51, paras. 117-137.

[27] *2018 Rate-of-Return Reform Order and NPRM* at 52-61, paras. 139-172.

13. Our actions today are also informed by our recent auction to award universal service support in eligible areas, known as the CAF Phase II auction, or Auction 903.[28] This auction, which ended on August 21, 2018, unleashed "robust price competition" so that "more locations will be served at less cost."[29] Through this auction, the Commission awarded high-cost support to serve over 700,000 rural homes and small businesses in 45 states. Approximately 99.7% of these locations will receive service of at least 25/3 Mbps—more than twice the 10/1 Mbps minimum standard for the CAF program.[30] Additionally, as a result of the auction, these locations will be served at a total of $1.488 billion over 10 years, a fraction of the $5 billion the Commission would have authorized had it provided model-based support.[31]

III. REPORT AND ORDER

A. An Additional Offer for A-CAM Carriers

14. To promote additional broadband deployment in areas served by existing A-CAM carriers, we initiate a new set of revised model offers which would provide support up to $200 per month, per location. These revised offers, in effect, fund the initial offers extended by the Bureau on August 3, 2016, before those offers were reduced for budgetary reasons.[32] To ensure these revised offers are in the public interest, we condition them on increased deployment obligations. These increased deployment obligations will further advance our goal of widespread availability of 25/3 Mbps service throughout the nation.

15. *Background*. In the *2016 Rate-of-Return Reform Order*, the Commission adopted a voluntary path for rate-of-return carriers to elect model-based support for a 10-year term, in exchange for extending broadband service to a pre-determined number of eligible locations.[33] Specifically, the Commission required carriers electing A-CAM to provide at least 10/1 Mbps service to a number of locations equal to the number of eligible locations in the model that were "fully funded" (i.e., locations where the model-estimated cost is above the funding benchmark and at or below the funding cap).[34] A-CAM carriers were further required to provide at least 25/3 Mbps service to 25, 50, or 75% of fully funded locations, depending on the density of the service territory.[35] Finally, carriers were required to provide at least 4/1 Mbps service to a number of eligible locations equal to a percentage of their partially funded locations, and 4/1 Mbps service to the remainder of eligible locations on reasonable request.[36]

16. On August 3, 2016, the Bureau announced offers of support and deployment obligations predicated on a monthly funding cap per location of $200.[37] Given substantial carrier interest in the offer, the Bureau determined that model-based support and transition payments to all carriers that accepted the

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[28] Eligible areas included those where price cap carriers declined Phase II support as well as areas determined to be extremely high cost. Information about the auction can be found at https://www.fcc.gov/auction/903.

[29] Press Release, FCC, Connect America Fund Auction to Expand Broadband to Over 700,000 Rural Homes and Businesses, (Aug. 28, 2018), https://docs.fcc.gov/public/attachments/DOC-353840A1.pdf.

[30] *Id*.

[31] *Id*.

[32] *A-CAM Offer Public Notice*, 31 FCC Rcd at 8642; *A-CAM Revised Offer Order and/or FNPRM.*

[33] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3094-3117, paras. 17-19. The Commission directed the Bureau to "take all necessary steps to release the adopted version of the model for purposes of calculating support amounts for rate-of-return carriers electing to receive model support." *Id*. at 3102, para. 37.

[34] *Id.* at 3097-99, paras. 23-26.

[35] *Id.*

[36] *Id.*

[37] *See A-CAM Offer Public Notice*, 31 FCC Rcd at 8641-42.

A-CAM offer would exceed the overall 10-year budget set by the Commission by more than $160 million annually.[38]

17. In the *A-CAM Revised Offer Order*, the Commission allocated an additional $50 million annually to the budget for model-based support and adopted other measures to address the excess in demand for model-based support.[39] First, the Commission locked in the support amounts and associated deployment obligations for 35 carriers for whom 45 offers of model-based support were less than the legacy support they received in 2015 in order to maximize their contribution to the A-CAM budget and broadband deployment.[40] Then, for the 191 remaining carriers whose original offer of model-based support was more than their legacy support, the Commission directed the Bureau to reduce the 228 offers to fit within the available budget, while preserving as much of the original offer as possible for those that had the lowest broadband deployment.[41]

18. To implement the Commission's decision, the Bureau first reduced the funding cap to $146.10 per location, the maximum amount of support per location that CAF Phase II provided to price cap carriers accepting offers of model-based support. Because the revised amounts still exceeded the budget, the Bureau further reduced support offers and associated deployment obligations by varying percentages based on the percentage of locations lacking 10/1 Mbps service, and extended revised offers showing revised support amounts and deployment obligations.[42] Most carriers accepted the revised offer, and, on January 24, 2017, the Bureau authorized 182 additional companies that elected 217 revised offers of A-CAM support.[43] Subsequently, in the *2018 Rate-of-Return Reform Order and NPRM*, the Commission directed the Bureau to offer additional support up to $146.10 per-location to all carriers that accepted the revised offers of model-based support.[44] The Bureau released the *Second Revised Offer PN* on May 7, 2018, setting forth revised support amounts and deployment obligations.[45] In response, 176 rate-of-return companies accepted 211 revised offers.[46]

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[38] *A-CAM Election Results Public Notice*.

[39] *See A-CAM Revised Offer Order and/or FNPRM*, 31 FCC Rcd at 13776-80, paras. 5-16.

[40] *Id*. at 13777-78, para. 7. *See also 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*, WC Docket No. 10-90, Public Notice, 31 FCC Rcd 13328 (WCB 2016) (*A-CAM First Authorization and Revised Offer Public Notice)*.

[41] *A-CAM Revised Offer Order*, 31 FCC Rcd at 13778, para. 8.

[42] *Id*. at 13378-79, paras. 8, 13; *A-CAM First Authorization and Revised Offer Public Notice*, 31 FCC Rcd at 13329-30.

[43] *Wireline Competition Bureau Authorizes 182 Rate-of-Return Companies to Receive More than $454 Million Annually in Alternative Connect America Cost Model Support to Expand Rural Broadband*, WC Docket No. 10-90, Public Notice, 32 FCC Rcd 842 (WCB 2017) (*A-CAM Second Authorization Public Notice*). A total of 207 companies accepted 262 offers of A-CAM support, which comprises 424 study areas. Carriers that did not elect the revised offer remained on legacy rate-of-return support and do not receive A-CAM support currently.

[44] *2018 Rate-of-Return Reform Order and NPRM* at 29-31, paras. 62-67.

[45] *Wireline Competition Bureau Announces Offers of Revised A-CAM Support Amounts to 217 Authorized A-CAM Companies to Expand Rural Broadband*, WC Docket No. 10-90, Public Notice, DA 18-465 (WCB rel. May 7, 2018).

[46] *Wireline Competition Bureau Authorizes 175 Rate-of-Return Companies to Receive an Additional $36 million Annually in Alternative Connect America Cost Model Support to Expand Rural Broadband*, WC Docket No. 10-90, Public Notice, DA 18-750 (WCB rel. July 20, 2018); *Wireline Competition Bureau Authorizes Mechanicsville Telephone Company to Receive Additional Alternative Connect America Cost Model Support to Expand Rural Broadband*, WC Docket No. 10-90, Public Notice, DA 18-1091 (WCB rel. Oct. 24, 2018).

19. In the *2018 Rate-of-Return Reform Order and NPRM,* the Commission sought comment on offering carriers that accepted the revised offer of A-CAM support in 2017 a new model offer using a funding cap of $200 per location and on what additional deployment obligations would be appropriate.[47]

20. *Discussion*. We authorize additional support up to $200 per location to all carriers that are currently authorized to receive A-CAM support. Increasing support immediately will result in substantial additional broadband deployment, while balancing overall budgetary constraints. This increase does not affect funding available to those carriers on legacy support.

21. The record uniformly supports increasing the funding cap for A-CAM to $200, as long as doing so does not adversely affect carriers receiving legacy support.[48] With additional funding, parties have made clear the economic, educational, and healthcare benefits that will directly follow.[49]

22. Consistent with our goal of realizing widespread deployment of 25/3 Mbps service,[50] we increase the deployment obligations associated with this revised offer. In adopting the speed obligations in the *2016 Rate-of-Return Reform Order*, the Commission noted that "our minimum requirements for rate-of-return carriers will likely evolve over the next decade."[51] The Commission acknowledged, in particular, NTCA's argument that "a universal service program premised on achieving speeds of 10/1 Mbps risks locking rural America into lower service levels."[52] Although the Commission agreed that "our policies should take into account evolving standards in the future," it required carriers electing A-CAM to deploy 25/3 Mbps service to only a fraction of their fully funded eligible locations.[53] Our recent experience with the CAF Phase II auction, which resulted in more than 99.7% of new locations being served by 25/3 Mbps service, affirms our conclusion that a higher standard of service is achievable.[54]

23. Therefore, we increase the 25/3 Mbps deployment obligations associated with the revised offer. Carriers receiving A-CAM under the existing offers must deploy 25/3 Mbps service to a number of

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[47] *2018 Rate-of-Return Reform Order and NPRM* at 53, paras. 142-43. Carriers that did not elect the revised offer remained authorized to receive A-CAM pursuant to their prior elections. A complete list of authorized companies can be found at https://docs.fcc.gov/public/attachments/DOC-352788A1.xlsx.

[48] *See* Comments of NTCA –The Rural Broadband Association, WC Docket No. 10-90 et al., at 31-32 (May 25, 2018) (NTCA Comments); Comments of ITTA – The Voice of America's Broadband Providers, WC Docket No. 10-90 et al., at 15-19 (May 25, 2018) (ITTA Comments); Comments of WTA – Advocates for Rural Broadband, WC Docket No. 10-90 et al., at 20-21 (May 25, 2018) (WTA Comments); Comments of ADTRAN, Inc., WC Docket No. 10-90 et al., at 8 (May 25, 2018) (ADTRAN Comments); Blooston Rural Carriers Comments, WC Docket No. 10-90 et al., at 13-15 (May 25, 2018) (Blooston Rural Carriers Comments); Concerned Rural LECS Comments at 11-12 (also arguing that there should be no monthly per-location cap at all); Comments of FWA, Inc., WC Docket No. 10-90 et al., at 9-11 (May 25, 2018) (FWA Comments); Comments ICORE Consulting LLC, WC Docket No. 10-90 et al., at 5 (May 25, 2018) (ICORE Comments); TDS Comments at 1-4; Comments of the USTelecom Association, WC Docket No. 10-90 et al., at 7-8 (May 25, 2018) (USTelecom Comments); Reply Comments of the Eastern Rural Telecom Association, WC Docket No. 10-90 et al., at 4 (June 25, 2018) (ERTA Reply Comments); Reply Comments of the Nebraska A-Cam Companies, WC Docket No. 10-90 et al., at 2, 9 (June 25, 2018) (Nebraska A-CAM Cos Reply Comments); Reply Comments of the Pennsylvania Public Utility Commission, WC Docket No. 10-90 et al., at 3 (June 25, 2018) (Pa PUC Reply Comments).

[49] *See* ITTA Comments at 1-4, 18-19; Comments of TDS Telecommunications Corp., WC Docket No. 10-90 et al., at 2-3 (May 25, 2018) (TDS Comments); USTelecom Comments at 3.

[50] *See* 47 U.S.C. § 254 (b)(2)-(3); 47 U.S.C. § 1302; *2018 Section 706 Report*.

[51] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3097, para. 24.

[52] *Id.*

[53] *Id.* at 3097-98, paras. 24-25.

[54] *Connect America Fund Phase II Auction (Auction 903) Closes; Winning Bidders Announced; FCC Form 683 Due October 15, 2018*, AU Docket No. 17-182 and WC Docket No. 10-90, Public Notice, DA 18-887 (WCB rel. Aug. 28, 2018) (*Auction 903 Public Notice*).

eligible locations equal to at least 25%, 50%, or 75% of the number of fully funded locations, depending on the density of the population in the carrier's service territory. We increase the 25/3 Mbps service requirement to 50% of fully funded locations for low density carriers, 65% of fully funded locations for medium density carriers, and 85% of fully funded locations for high density carriers consistent with ITTA's proposal.[55] ITTA's proposal assumes that carriers will devote the additional support from the revised offer entirely to capital expenses associated with the deployment of new broadband, and estimates the number of locations that carriers in each band would, on average, be able to reach with 25/3 Mbps service as a result. We find that ITTA's proposal provides a reasonable estimate of how many additional locations a carrier could be expected to serve with 25/3 Mbps service and ensure that all new fully funded locations based on this offer will receive 25/3 Mbps service.[56]

24. We note that the revised offer will be made available to all carriers that accepted the first A-CAM offer, including those carriers whose offer of model-based support is less than their legacy support (referred to as glide path carriers).[57] Although this will not provide any additional support to glide path carriers during the eight remaining years of the original authorization, it would provide an opportunity for the glide path carriers to receive an additional two years of A-CAM support, through the end of the term of this revised offer, in consideration for additional obligations to deploy 25/3 Mbps service. Glide path carriers currently receive approximately $51 million per year in A-CAM support (excluding transitional support) and would be required to deploy 25/3 Mbps service to over 8,300 additional eligible locations if all companies accepted.

25. If all eligible carriers accept the revised offer, this deployment obligation would increase the number of locations to which carriers would be required to offer 25/3 Mbps service by more than 100,000 locations. This exceeds the more than 39,000 partially funded locations, currently required to be served with 4/1 Mbps or only upon reasonable request, that would be fully funded and would be required to be served by at least 10/1 Mbps service. We further note that the number of locations subject to the reasonable request standard would be reduced by more than 26,000. We find that these higher deployment obligations justify the potential $67 million per year cost of funding to the $200 per location cap.

26. In the absence of the increased deployment obligations, we do not believe a revised offer for the existing A-CAM carriers with a $200 per-location funding cap would provide a sufficient value for our limited universal service resources. Absent the higher deployment obligations, in contrast to the increased deployment figures noted above, the revised offer could increase the number of locations that would receive 25/3 Mbps over the course of the support term by only 17,800, with only another 21,678 locations receiving 10/1 Mbps (while still reducing the number of locations subject to provision of broadband service only on reasonable request by more the 26,000). Given a $67 million per year price tag, we do not believe that this result, without more, achieves sufficient "bang for the buck."

27. We decline to adopt ITTA's request to count existing locations towards the deployment obligations of existing A-CAM carriers.[58] Specifically, ITTA proposes that a carrier should be permitted

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[55] Letter from Genevieve Morelli, ITTA, et al., to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90 et al. (Nov. 15, 2018). ITTA derived its proposal by estimating the amount of additional model-based support carriers in each density band would receive for a ten-year offer and dividing it by a weighted average capital expense cost per location in areas served by carriers in each band.

[56] We note that for a limited number of companies, the ITTA proposal would increase the number of 10/1 Mbps locations as well as the number of 25/3 Mbps locations. Because we believe it important that any locations newly funded be served with 25/3 Mbps service, we will increase the 25/3 Mbps deployment obligations in the offer to this limited set of companies so that it is equal to the number of new fully funded locations as a result of the new offer.

[57] *See* Letter from Michael J. Jacobs, ITTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al., (Nov. 30, 2018); Letter from Keith Oliver, Home Tel. Co., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al., (Dec. 6, 2018) (Home Tel. Co. Dec. 6 Letter).

[58] *See* section III.B.

to satisfy its deployment obligations by providing service to locations that were ineligible in the original offer because they were in census blocks in which the carrier or its affiliate already served with fiber-to-the-premises or cable facilities.[59] We do not believe this modification would be in the public interest. In most cases, the otherwise eligible locations that were excluded because they were already served by the carrier with fiber-to-the-premises or cable facilities are likely to be relatively less costly to serve than other eligible locations.[60] As a result, ITTA's proposal would allow A-CAM carriers to meet their deployment obligations by serving locations that are, in many cases, far less costly to serve than the ones on which their A-CAM support offers were calculated.[61] Further, by definition, some of these locations are already served by fiber-to-the-premises or cable technology, so making these areas eligible for deployment would limit the amount of deployment to additional unserved locations. Finally, we note that this approach would make it much more difficult for the Commission to monitor and verify whether any built out locations are actually new.

28. We decline to adopt Gila River's proposal to apply a Tribal Broadband Factor, as we do with the new model offer, below, to existing A-CAM recipients.[62] In the new model offer, we include a Tribal Broadband Factor to reflect that the assumptions made about the amount of end-user revenues in the model may not be reasonable for Tribal lands. When the existing A-CAM carriers accepted the model offer, they implicitly accepted that the end-user revenue assumptions were sufficiently reasonable for them to meet the deployment obligations associated with the model offer. Accordingly, we do not believe that existing A-CAM carriers require the adjustment that we adopt for the new model offer.

29. To provide carriers accepting this revised A-CAM offer sufficient time to meet the increased deployment obligations, we adopt a modified term of support and deployment milestones for those carriers. The term of the revised offer will be ten years, beginning January 1, 2019, and running until December 31, 2028. Effectively, this revised term extends A-CAM by two years for carriers that elect this revised offer. Carriers electing this revised offer will be obligated to meet the deployment milestones to which they previously agreed with respect to 10/1 Mbps service.[63] In addition, they will be required to meet similar milestones to deploy 25/3 Mbps service to the required number of eligible locations on a ten-year schedule beginning January 1, 2019. In other words, each carrier will be required to serve at least 40% of the requisite number of eligible locations by end of the 2022, 50% by the end of 2023, 60% by the end of 2024, 70% by the end of 2025, 80% by the end of 2026, 90% by the end of 2027, and 100% by the end of 2028.

30. We direct the Bureau to release a public notice announcing the revised model-based support amounts and corresponding deployment obligations and providing carriers that have previously

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[59] ITTA Comments at 25; *see also 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3109-10, para. 56 (excluding census block where the carrier provides service using fiber-to-the-premises or cable technology).

[60] This is likely to be true for at least two reasons. First, all other considerations being equal, a carrier will typically prefer to maximize its profits by investing in areas with a relatively lower cost per location before investing in areas with relatively higher cost locations. Second, from a network design perspective, a carrier will typically have to build fiber facilities in the relatively lower cost, more densely populated areas closer to a wire center in order to provide even lower levels of service in the costlier, less densely populated areas further from the wire center.

[61] This circumstance differs from the terms of the new model offer we adopt below. There, both the support amounts and deployment obligations incorporate these as eligible locations, so there is no substitution of lower cost locations if a carrier counts those locations to meet its deployment obligations.

[62] Letter from Gregory W. Guice, Counsel for Gila River Telecommunications, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 3 (Dec. 5, 2018) (Gila River Dec. 5 Letter).

[63] Under the prior A-CAM, carriers agreed to deploy at least 10/1 Mbps service to a number of locations equal to 40% of fully funded locations by the end of 2020, 50% of fully funded locations by the end of 2021, 60% of fully funded locations by the end of 2022, 70% of fully funded locations by the end of 2023, 80% of fully funded locations by the end of 2024, 90% of fully funded locations by the end of 2025, and 100% of fully funded locations by the end of 2026. *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3100-01.

been authorized to receive A-CAM support with 30 days to confirm that they will accept the revised offer.[64] Any such election shall be irrevocable. USAC shall begin disbursing this revised model support the month following a Bureau public notice authorizing those carriers that accept this revised offer.

B. New Model Offer for Legacy Carriers

31. We extend a new model offer, or A-CAM II, to legacy rate-of-return carriers that did not previously elect model support or support pursuant to the Alaska Plan. This offer will re-open a voluntary path for legacy rate-of-return carriers to receive model-based support in exchange for deploying broadband-capable networks to a predetermined number of eligible locations. Expanding the number of carriers receiving model-based support will advance the Commission's longstanding objective to provide high-cost support based on a carrier's forward-looking, efficient costs and will help spur additional broadband deployment in rural areas. As described below, this new model offer retains many elements of the original A-CAM offer but makes several critical adjustments to encourage new carriers to take advantage of model-based support and accelerate deployment of broadband networks.

32. *Background*. In the *2016 Rate-of-Return Reform Order*, the Commission adopted a voluntary path to model-based support for rate-of-return carriers, creating incentives for the deployment of voice and broadband-capable infrastructure.[65] In that Order, the Commission established a number of parameters governing the eligibility of carriers and locations and calculation of model-based support, excluding, notably, carriers that had reported deploying 10/1 Mbps service to more than 90% of eligible locations.[66] The Commission also excluded from eligibility locations in census blocks served by an unsubsidized competitor offering at least 10/1 Mbps, and locations in census blocks where the incumbent already deployed fiber to the premises (FTTP) or was providing 10/1 Mbps or better broadband using cable technologies.[67]

33. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission proposed extending a new model offer to legacy carriers that had not elected the original offer.[68] The Commission further sought comment on revising the eligibility requirements and model parameters for the new model offer.[69]

34. *Discussion*. We adopt a new model offer, A-CAM II, as described in detail below. This new model offer of up to $200 per location will be available to all existing legacy carriers, including those previously excluded because they had deployed 10/1 Mbps service to more than 90% of eligible locations. The new model offer will include a Tribal Broadband Factor, rely on broadband coverage data from the most recent FCC Form 477 (which we anticipate will be data as of December 2017), and include census blocks where the carrier or its affiliates have deployed fiber-to-the-premises or cable. It will exclude census blocks served by an unsubsidized competitor only when the competitor offers voice and 25/3 Mbps or faster broadband service. In addition to the deployment requirements previously required of A-CAM recipients, carriers accepting the new model offer will be required to deploy 25/3 Mbps service to a number of locations equal to the number of eligible fully funded locations in their service area. The new model offer will be fully funded up to the $200 per-location cap, and it will not affect the budget for rate-of-return carriers remaining on legacy support. To the extent this Report and Order is silent regarding the terms and conditions of the new model offer, we adopt the terms of the original A-CAM offer.[70]

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[64] Any carrier subject to a prior A-CAM authorization that declines to adopt this offer will remain subject to the terms of their prior authorization.

[65] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3094-117, paras. 17-79.

[66] *Id.*

[67] *Id.* at 3109, para. 56.

[68] *2018 Rate-of-Return Reform Order and NPRM* at 46-51, 53-54, paras. 117-37, 144-47.

[69] *Id.*

[70] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3094-117, paras. 17-79.

35. While a few commenters unconditionally supported a new model offer to all legacy carriers,[71] many commenters supported the broader new model offer only on the condition that the Commission address the budgetary concerns of carriers remaining on legacy support.[72] Because the new model offer has no impact on funds available for rate-of-return carriers receiving legacy support, we believe we have satisfied the primary concerns of these parties.

36. We also are not persuaded by the Broadband Alliance's argument that any new model offer should be deferred until we have gathered evidence about the efficacy of the existing A-CAM program as compared to legacy support.[73] The Broadband Alliance suggests that legacy support may possibly be more effective because its members have "already deployed [fiber-to-the-home] to 70 percent of their network, on average," but that model-based companies "will not reach" that same milestone until 2024. However, the Broadband Alliance contradictorily argues that whether legacy support or A-CAM offers better results cannot be empirically known for a number of years.[74] In any event, we disagree with their argument. First, we note that Broadband Alliance ignores the difference between eligible locations (on which A-CAM recipients' deployment obligations are based) and all locations (on which Broadband Alliance's deployment percentage is based). Second, the Broadband Alliance seems to assume that A-CAM carriers will not deploy service before they are required to do so, but deployment submissions to the High Cost Universal Broadband (HUBB) portal show that there are A-CAM carriers deploying at faster rates than required by our rules. Further, the fixed amount of model-based support guaranteed to the carriers provides enormous benefits to carriers in planning capital spending, allowing them to deploy broadband to areas they would not have otherwise deployed than if they needed to base decisions on varying levels of legacy-based support.[75]

37. *$200 per-location funding cap.* Consistent with the original A-CAM offer and with the new offer to existing A-CAM carriers described above, we set the per-location cap at $200. We do not limit the amount of support available through this offer and do not adopt any provision to reduce the funding cap based on the amount of support resulting from carrier elections of this offer. Most

[71] ADTRAN Comments at 6-7; Concerned Rural LECs Comments at 13-20; USTelecom Comments at 13-14.

[72] NTCA Comments at 46-47 (opposing broader new model offer unless budgetary concerns for legacy carriers are met); NTTA Comments at 4 (conditioning support on resolution of "overall RoR legacy budget problems"); ITTA Comments at 20-22 (supporting broader new model offer once budgetary concerns were met); WTA Comments at 20 (tentatively favoring broad new model offer, but only after overall rate-of-return budget review); FWA Comments at 9-11 (new model offer should not negatively impact availability of funding for legacy rate-of-return carriers); Reply Comments of GVNW Consulting, Inc., WC Docket No. 10-90 et al., at 17 (June 25, 2018) (GNVW Reply Comments) (supports broader new model offer if adequate support is available and does not come at the expense of cost-based support); Comments of TCA, WC Docket No. 10-90 et al., at 4 (May 25, 2018) (TCA Comments) (supports new model offer that does not hinder fully funding cost-based support); Letter from Genevieve Morelli, ITTA, et al., to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90 et al., at 2 (Oct. 1, 2018) (Joint Trade Association Letter); Letter from Rebekah Goodheart, Counsel for Hargray Communications, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90 et al. (Oct. 15, 2018).

[73] Comments of the Broadband Alliance of The Midwest, WC Docket No. 10-90 et al., at 14-16 (May 25, 2018) (Broadband Alliance Comments)

[74] *Id.* at 15.

[75] *See, e.g.*, Letter from Michael J. Jacobs, ITTA, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 10-90, at 1 (Oct. 30, 2018) (benefits already accruing from A-CAM include "fiber deployment that would not have occurred otherwise, collateral increases in broadband speeds to at least 10/1 Mbps for locations in non-A-CAM-eligible areas and, overall, enhanced vitality for the broadband deployment plans of the companies accepting A-CAM Plan-based funding and its attendant build-out obligations").

commenters supported funding the new model offer up to a $200 per-location cap, rather than the proposed $146.10 per-location cap.[76]

38. We decline to make further adjustments to the per-location funding cap. Specifically, we reject WISPA's request to reduce significantly the per-location cap to account for changes in technologies and business models that reflect that not all deployments are fiber.[77] While WISPA advocates for an ad hoc change in the way cost estimates are used to calculate support, the rationale for WISPA's proposal implies a major reconsideration in the model's methodology for estimating the costs of deployment. The Commission specified the use of a wireline network architecture to estimate model costs in the *USF/ICC Transformation Order* and rejected arguments that the model should also estimate wireless costs.[78] Moreover, there is no evidence in the record to support how to construct a model based on the costs of deploying broadband with wireless technologies. Without a rigorous method of estimating the alternative costs of serving specific areas, considering their specific topography and other characteristics, we cannot determine whether WISPA's suggested cost savings would even be achievable for any particular carrier. For example, the cost savings may be associated disproportionately with locations that are above the funding threshold by a relatively small amount. In that case, lowering the funding cap would have no effect on locations that could be cost-effectively served with wireless technologies, while reducing funding for model locations that could not be.

39. *Carriers Eligible for New Model Offer*. The new model offer will be extended to all carriers that currently receive legacy support, i.e., CAF BLS and HCLS, and do not receive A-CAM or Alaska Plan support.[79] Expanding the number of carriers receiving model-based support will advance the Commission's longstanding objective to provide high-cost support based on forward-looking efficient costs to help spur additional broadband deployment in rural areas.[80] Model-based support, backed by significant, verifiable deployment obligations, provides the appropriate incentives for carriers to serve their rural and high-cost communities efficiently with modern broadband networks.[81] For that reason, we

[76] WTA Comments at 17; Blooston Rural Carriers Comments at 13-14; Comments of the Nebraska A-CAM Companies, WC Docket No. 10-90 et al., at 4-9 (May 25, 2018) (Nebraska A-CAM Cos Comments); ERTA Reply Comments at 4.

[77] Comments of the Wireless Internet Service Providers Association, WC Docket No. 10-90 et al., at 4 (May 25, 2018) (WISPA Comments).

[78] *USF/ICC Transformation Order*, 26 FCC Rcd at 17736-37, paras. 189-91 (finding that wireless costs were too difficult to estimate, especially at the census block level, and that costs were unlikely to be significantly less for comparable service).

[79] Two Alaskan companies currently receive A-CAM support and all other Alaskan rate-of-return companies have been authorized to receive support pursuant to the Alaska Plan. *See A-CAM Second Authorization Public Notice*, 32 FCC Rcd at 845; *Wireline Competition Bureau Authorizes Alaska Plan Support for 13 Alaskan Rate-of-Return Companies*, WC Docket Nos. 10-90 and 16-271, 31 FCC Rcd 13347 (WCB 2016) (*Alaska Plan Authorization Public Notice*). Accordingly, no Alaskan rate-of-return company remains on legacy support mechanisms. Adak Eagle Enterprises, LLC (Adak) indicated interest in A-CAM support but in the *Alaska Plan Order*, the Commission noted that those Alaska carries that are unable to offer even 4/1 Mbps service would not be permitted to elect A-CAM support. *See id.* at 13348. Adak filed a Petition for Reconsideration the Commission's decision to deny Adak a revised offer of A-CAM support pursuant to the *A-CAM Revised Offer Order*. Petition for Reconsideration of Adak, WC Docket No. 10-90 (Jan. 19, 2017).

[80] *See*, *e.g.*, *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8932, para. 287 (1997). However, we decline to adopt Home Telephone's proposal to extend the new model offer to existing A-CAM carriers that receive less A-CAM support than they received in legacy support. *See* Home Tel. Co. Dec. 6 Letter at Attachment. As noted above, existing A-CAM carriers accepted that offer based on anticipated end-user revenues in light of the deployment obligations. Such carriers will be eligible for a revised offer.

[81] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3096, para. 20.

believe it is in the public interest to make the new model offer available to all carriers, including those that were not previously eligible. We discuss some notable elements of this broad eligibility.

40. First, we will extend the offer to carriers that have reported deploying 10/1 Mbps service to more than 90% of eligible locations. All commenters addressing this question support this approach.[82] We recognize that the high-cost of maintaining networks in rural America means that the deployment of 10/1 Mbps does not end the need for high-cost support. Further, the model is an appropriate tool for determining high-cost support even when a carrier has fully deployed broadband service.[83] The model's cost module, which calculates the cost of deploying and maintaining the network, estimates the static, life cycle cost of a network fully deploying fiber-to-the-premises, and does not distinguish between carriers that have already deployed broadband and those that have not. As such, the model appropriately estimates the forward-looking costs of a carrier that is maintaining a broadband network and replacing its depreciated assets. Finally, because our deployment obligations require significant deployment of 25/3 Mbps service, it is likely that A-CAM II support will, in fact, spur deployment of higher speeds, even for carriers that were previously excluded due to their reported 10/1 Mbps deployment. We therefore find that it is appropriate to extend the model offer to all rate-of-return carriers receiving legacy support, regardless of the existing deployment.

41. Second, we extend the offer of support to all legacy carriers, even those that would receive more annual support from the model than under legacy rate-of-return support mechanisms. The model and its associated deployment obligations provide effective incentives for efficient and widespread deployment of high-quality, 25/3 Mbps broadband service. If the model indicates that a carrier should receive additional support, then that suggests the carrier may require additional support to deploy or maintain its broadband network. And we believe that providing the long-term funding certainty to such carriers, along with verifiable deployment obligations, outweighs the additional costs to the Fund. Although some commenters would prefer to limit the new model offer to carriers willing to accept lower payments than they have historically received, they rely on the rationale that doing so would enable the Commission to provide additional funding to other legacy and A-CAM carriers.[84] As we explain below, we delink the legacy budget from the model budgets, ensuring that our decisions here do not impact those carriers that remain on legacy support mechanisms.

42. We decline to adopt Shawnee and Moultrie's proposal to limit the loss of support for each glide path carrier to a specified percentage of its current legacy support, essentially setting carrier-specific funding caps.[85] Under Shawnee and Moultrie's proposal, some carriers could have funding caps well in excess of $200 per location, by virtue of their current high levels of legacy support. We do not believe, at this time, that using model-based support to fund those very high cost locations is an effective use of universal service resources.

43. Third, we decline to exclude carriers from eligibility for the new model offer if the offer would include no fully funded locations. In other words, a carrier may elect the offer even if it would be required to deploy only 4/1 Mbps or on reasonable request. We note, however, that new model offers meeting this criterion would represent a very small number of carriers and very little support; moreover, these carriers can always exceed the minimum obligation.

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[82] NTCA Comments at 43; ITTA Comments at 25-26; Blooston Rural Carriers Comments at 12; Reply Comments of Granite State Telephone, Inc., WC Docket No. 10-90 et al., at 8 (June 25, 2018) (Granite State Reply Comments); Reply Comments of Shawnee Telephone Company and Moultrie Independent Telephone Company, WC Docket No. 10-90 et al., at 7 (June 25, 2018) (Shawnee and Moultrie Reply Comments).

[83] We note that the Commission excluded such carriers from A-CAM support in the *2016 Rate-of-Return Reform Order*, but only to "preserve the benefits of the model for those companies that have more significant work to do to extend broadband to unserved consumers in high-cost areas." *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3113, para. 66.

[84] Blooston Rural Carriers Comments at 10.

[85] Shawnee and Moultrie Reply Comments at 6.

44. *Revising Model Parameters*. We adopt revised model parameters for the purpose of extending the new model offer.[86] The revised parameters will encourage carriers to take advantage of model-based support.

45. First, for reasons similar to those for which we permit carriers with more than 90% deployment to participate, we find that the new model offer should include census blocks where fiber-to-the-premises or cable has already been deployed by the incumbent or its affiliate. ITTA, WTA, and USTelecom support this modification, and no commenter opposed it.[87] Including census blocks which already have some fiber-to-the-premises will promote more and higher speed deployment to locations in those census blocks that do not currently have 25/3 Mbps or better service. Moreover, the Commission has previously recognized that areas with partially or fully-deployed fiber-to-the-premises may still require high-cost support to maintain existing service.[88] The cost module of the model does not distinguish between those areas that have or have not had 25/3 Mbps service, and the model fairly estimates the costs of providing service even if that service has already been deployed.[89]

46. Second, we adjust the model so that it excludes locations presumed to be served by unsubsidized competitors only when the unsubsidized competitor provides voice and at least 25/3 Mbps service. Previously, the model excluded areas served by unsubsidized competitors only if they provided voice and 10/1 Mbps or faster service. Based on our recent experience with the CAF Phase II auction, we believe that a higher standard of service is achievable.[90] Given our commitment to using model-based support to achieve widespread deployment of 25/3 Mbps service, we find it necessary to exclude locations from eligibility only when a competitor provides a comparable level of service. NTCA, in particular, has emphasized the need for deployment of networks capable of providing 25/3 Mbps or greater service throughout rural areas.[91] Simultaneously asking carriers to deploy 25/3 Mbps service while excluding from eligibility locations served by competitors with inferior service would consign many more rural locations to lower quality service for at least the term of the new model offer.

47. We are not persuaded by WISPA's arguments that the model should exclude locations presumed to be served by unsubsidized competitors when the unsubsidized competitor provides at least 10/1 Mbps, rather than 25/3 Mbps.[92] WISPA argues that there is "inherent inequity" in providing A-CAM II support to rate-of-return carriers in areas where they provide 10/1 Mbps but excluding areas from A-CAM II only if an unsubsidized competitor provides 25/3 Mbps.[93] We find no such inconsistency in these model parameters. Rate-of-return carriers that have already deployed 10/1 Mbps currently receive

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[86] A-CAM contains two modules: a cost module that calculates costs and a support module that calculates the support for each area based on those costs. The support module can be used to calculate costs differently for different geographic areas, including removing support entirely (or filtering out) those areas that have broadband coverage. The Tribal Broadband Factor and the updated broadband coverage modify only the support module.

[87] ITTA Comments at 24-25 (supporting inclusion of fiber to the premises (FTTP)-served census blocks for all carriers); WTA Comments at 16 ("vigorously" supporting inclusion of FTTP-served census blocks in offer to glide path carriers; support for broader offer conditioned on resolution of budget issues); USTelecom Comments at 15-16 (supporting inclusion of FTTP-served census blocks for all A-CAM recipients).

[88] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3113, para. 66.

[89] Nebraska A-CAM Cos. Comments at 5-6; USTelecom Comments at 15-16.

[90] As noted, in the CAF Phase II auction, the Commission used a competitive bidding process to award support to more than 700,000 locations in 45 states at various speed and latency tiers. More than 99.7% of those locations will be served by 25/3 Mbps service, even though bidders were permitted to submit offers based on 10/1 Mbps service. *Auction 903 Public Notice*.

[91] *See* NTCA Comments at 47-48.

[92] Letter from Stephen Coran, Counsel to WISPA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2-4 (Dec. 6, 2018) (WISPA Dec. 6 Letter).

[93] *Id.*

high-cost support pursuant to legacy mechanisms and likely require support in areas where the model indicates their forward-looking costs exceed their reasonable end-user revenues. Providing A-CAM II model-based support that requires them to widely deploy 25/3 Mbps service is not inconsistent with the separate consideration that A-CAM II support is not required in areas where an unsubsidized competitor already provides 25/3 Mbps service.

48. WISPA further argues that the Commission's universal service resources would be better used if A-CAM II excluded areas where an unsubsidized competitor provides service of at least 10/1 Mbps because that unsubsidized competitor may provide 25/3 Mbps service at a future date or because the current service may be closer to 25/3 Mbps than 10/1 Mbps.[94] To create a functional model offer we must have a brightline threshold for whether an unsubsidized competitor's service is sufficient to make an area ineligible for A-CAM II support. WISPA's proposal to address hypothetical future unsubsidized services, or services that do not meet the threshold, would effectively lower the threshold. We conclude that reducing the threshold does not appropriately drive deployment of the 25/3 Mbps service that is the new service standard.

49. Finally, WISPA notes that the 25/3 Mbps unsubsidized competitor standard harms service providers that have invested in reliance on "the Commission's representations that the establishment of 10/1 Mbps service would be sufficient to avoid government-funded subsidies flowing to competitors."[95] WISPA does not cite with specificity any such representations, and we find that such reliance would be misplaced in any event. Congress explicitly defined universal service as "an evolving level of telecommunications services . . . taking into account advances in telecommunications and information technologies and services."[96] The Commission has previously stated that broadband speeds would be subject to an evolving standard, which indicates that higher speed thresholds would likely be established at a later time.[97] Indeed, the Commission first determined that advanced telecommunications capability required 25/3 Mbps in 2015.[98] Further, the areas subject to the new model offer currently receive high-cost support from legacy mechanisms that support rate-of-return carriers without regard to whether a competitor provides 10/1 service, except in the rare case where a competitive provider has completely overbuilt the incumbent provider.[99]

50. Third, we modify the model by updating the broadband coverage data with the most recent publicly available FCC Form 477 data (which we anticipate will be data as of December 2017) prior to any additional offer of support. This broadband coverage data is used to determine which census blocks are served by unsubsidized competitors providing 25/3 Mbps broadband service, so that universal service resources can be effectively targeted to areas that require high-cost support. NCTA and WISPA support the use of FCC Form 477 data to identify areas of competitive overlap.[100] Relying on the certified FCC Form 477 data will permit us to avoid a time-consuming and administratively burdensome challenge process. In the challenge process for the first A-CAM offer, the Bureau granted only 61 challenges of the

[94] *Id.* (suggesting for example an unsubsidized competitor providing 20/5 Mbps service).

[95] *Id*.

[96] 47 U.S.C. § 254(c)(1).

[97] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3097, para. 24.

[98] *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, 30 FCC Rcd 1375, 1403, para. 45 (2015).

[99] *See* 47 CFR § 54.319.

[100] Comments of NCTA – The Internet & Television Association, WC Docket No. 10-90 et al., at 5 (May 25, 2018) (NCTA Comments); *see also* WISPA December 6 Letter at 3-4.

more than 250 requests to change A-CAM coverage.[101] Even that low success rate may overstate the consequences of the granted challenges because those particular census blocks still would not be considered "unserved" if there were other unsubsidized providers reporting service in those census blocks.[102] Further, given our decision to adjust the model so that it will only exclude locations presumed to be served by unsubsidized competitors providing at least 25/3 Mbps service,[103] we believe that even fewer locations will be excluded based on competitive overlap, and many fewer will be linked to the type of false positives that the challenge process is intended to address.

51. Our reliance on FCC Form 477 data is consistent with the process the Commission used in the Connect America Phase II auction proceeding.[104] There, the Commission found that FCC Form 477 data superseded the results of the prior Connect America Phase II model support proceeding.[105] The Commission further did not require the Bureau "to entertain challenges from parties seeking to establish that a block reported as served on a certified FCC Form 477 . . . is unserved."[106] In other words, the Connect America Phase II auction proceeding did not permit the type of challenges at issue here. In declining to permit such challenges, the Commission found that the Phase II model support process "was very time-consuming and administratively burdensome for all involved."[107] The Commission specifically found that it is "difficult for the incumbent provider to prove a negative—that a competitor is not serving an area. . . ."[108] This burden of proving a negative is precisely the burden that possible electors of a new model offer would carry in their challenge process.

52. Several commenters argue in favor of retaining a challenge process.[109] Although a challenge process might make some modest improvement to the quality of the data, we remain unconvinced that the challenge process represents a significant improvement over the FCC Form 477 data, such that the benefits of the improved data would outweigh the significant administrative burdens of conducting a challenge process.

53. The Blooston Rural Carriers (Blooston), while conceding that the challenge process is administratively burdensome and that only 20% were granted in the past, argue that the "volume of [challenges] . . . clearly demonstrates the inaccuracy of [the 477] data."[110] Blooston does not explain why the absolute number of challenges is more relevant than the low success rate of the challenges, nor does it try to quantify in any way the supposed benefit of the challenge process. Blooston further cites two Mobility Fund proceedings in which the Commission did not rely on FCC Form 477 data to suggest the

[101] *See Connect America Fund*, WC Docket No. 10-90, Order, 31 FCC Rcd 7790 (WCB 2016).

[102] *Id*. at 7804, para. 46.

[103] *See* section III.B.

[104] *Connect America Fund, ETC Annual Reports and Certifications, Rural Broadband Experiments*, WC Docket Nos. 10-90, 14-58, and 14-259, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 5949, 5968-71, paras. 53-61 (2016) (*CAF Phase II Auction Order*).

[105] *Id.* at 5969, para. 56.

[106] *Id.* at 5970, para. 58. The Commission did adopt a streamlined challenge process to address cases where the challenge process sought to demonstrate that an area shown as unserved by a competitor was, in fact, served. *Id.* at 5969-70, para. 57.

[107] *Id.* at 5970, para. 58.

[108] *Id.*

[109] WTA Comments at 19; Blooston Rural Carriers Comments at 14; TCA Comments at 5-6; USTelecom Comments at 16 (new entrants to A-CAM should be afforded the same opportunities and basis for support); Granite State Reply Comments at 8.

[110] Blooston Rural Carriers Comments at 14-15.

"importance of a bona fide challenge process used in connection with Form 477 data."[111] We do not find the two Mobility Fund proceedings cited by Blooston informative here. The Mobility Fund Phase I process did not rely on FCC Form 477 data (which did not collect the relevant broadband deployment information at that time), and instead used commercially available data to preliminarily identify eligible areas.[112] In the Mobility Fund Phase II proceeding, the Commission ultimately decided to adopt an industry consensus proposal to perform a one-time data collection very specifically tailored to identify qualified 4G LTE coverage for the purposes of Mobility Fund II.[113] Identifying qualified 4G LTE coverage is a significantly more complex issue than determining whether qualified broadband service is offered in a census block, and there is no industry consensus surrounding an alternative data collection process in this proceeding. Neither case provides any useful data regarding the benefits or burdens of a challenge process for the FCC Form 477 data. Similarly, to demonstrate the supposed inadequacies of FCC Form 477 data, TCA points to the Commission's review of study areas receiving legacy high-cost support to identify study areas 100% overlapped by unsubsidized competitors but that proceeding uses a much higher standard for competitive coverage than is used to determine A-CAM eligibility.[114]

54. WTA and Granite State support the use of a challenge process, but specifically do so as a means of setting a higher standard for when a census block would be deemed ineligible for the new model offer.[115] WTA argues specifically that the challenge process should be based on the "actual availability" of service "throughout the census block."[116] Granite State argues in favor of "a challenge process similar to the one adopted for the 100 percent overlap and rate-of-return challenge process where the competitor has the burden of proof."[117] We decline to adopt their proposals. Neither proposal includes sufficient detail to determine how the challenge process would work in the model offer context. Moreover, both proposals would appear to make locations eligible for model support even if they are served by unsubsidized competitors providing comparable service, on the grounds that the unsubsidized competitors do not provide service throughout the census block. Providing model support for such locations would be inconsistent with the Commission's policy, adopted in the *USF/ICC Transformation Order*, to condition Connect America Fund broadband obligations on not spending the funds in areas already served by an unsubsidized competitor.[118]

55. Finally, to address the unique challenges of deploying high-speed broadband to rural Tribal communities, we incorporate a Tribal Broadband Factor into the model. Specifically, A-CAM incorporates nationwide assumptions about take rates and potential average revenues per subscriber to estimate a reasonable amount of end-user revenues per location that form the basis of the $52.50 per location funding threshold.[119] Those assumptions may be unrealistic given the "high concentration of

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[111] *Id.*

[112] *Mobility Fund Phase I Auction Scheduled for September 27, 2012, Notice and Filing Requirements and Other Procedures for Auction 901*, AU Docket No. 12-25, Public Notice, 27 FCC Rcd 4725, 4729-30, paras. 9-10 (WTB/WCB 2012).

[113] *Connect America Fund*; *Universal Service Reform – Mobility Fund*, WC Docket No. 10-90 and WT Docket No. 10-208, Order on Reconsideration and Second Report and Order, 32 FCC Rcd 6282, 6285-89, paras. 5-13 (2017).

[114] *See* TCA Comments at 5-6 (citing *Connect America Fund*, WC Docket No. 10-90, Order, 30 FCC Rcd 14145 (WCB 2015)); *Wireline Competition Bureau Concludes the 100 Percent Overlap Challenge Process*, WC Docket No. 10-90, Public Notice, 32 FCC Rcd 9294 (WCB 2017).

[115] WTA Comments at 19; Granite State Reply Comments at 6.

[116] WTA Comments at 19.

[117] Granite State Reply Comments at 6.

[118] *See, e.g.*, *USF/ICC Transformation Order*, 26 FCC Rcd at 17701, para. 103.

[119] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3107, para. 52.

low-income individuals [and] few business subscribers" in many rural, Tribal areas.[120] By reducing the funding threshold by 25% for locations in Indian country—in other words, by setting a high-cost funding benchmark of $39.38 on Tribal lands—the revised model directly addresses the lower expected end-user revenues in rural, Tribal areas and by improving the business case will spur further broadband deployment there. We believe that 25% is a reasonable approximation of the additional funding needed in Tribal areas. Because A-CAM support is calculated at the census block level, the Tribal Broadband Factor will efficiently target support to carriers that serve significant Tribal lands, as well as those carriers that serve only a minimal amount of Tribal lands or a small number of housing units on Tribal lands in their study area.[121] For the purpose of this revised parameter, we adopt the definition of "Tribal lands" that was used in the *USF/ICC Transformation Order*[122] and later modified in the *2015 Lifeline Reform Order*.[123] Several commenters support this revised parameter.[124]

56. To fully effectuate this Tribal Broadband Factor, we also raise the funding cap for Tribal lands to $213.12 per location to reflect the additional funding arising from the lower threshold. We note that this approach is consistent with Sacred Wind's proposal to adopt another tier of model support for carriers serving Tribal lands.[125]

57. We decline to adopt alternatives to the Tribal Broadband Factor proposed by the National Tribal Telecommunications Association (NTTA) and Gila River Telecommunications, Inc. (Gila River).[126] Both propose a different tribal broadband factor that would be applied to increase support (both A-CAM and legacy) provided to carriers serving Tribal lands by 25%. Providing additional legacy support, without any particular correlation to circumstances faced by carriers serving Tribal lands, would not be an effective use of universal service resources in support of broadband deployment. Hypothetically, a carrier receiving high (but permissible) universal service support could receive enough

[120] *USF/ICC Transformation Order*, 26 FCC Rcd at 17820, para. 482 (quoting *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Twelfth Report and Order, Memorandum Opinion and Order, and Further Notice of Proposed Rulemaking, 15 FCC Rcd 12208, 12226, para. 32 (2000)); *see also, e.g.,* Comments of Sacred Wind Communications, Inc., WC Docket Nos. 10-90, 14-58, CC Docket No. 01-92, at 2, 4, 7-9 (May 12, 2016); Comments of Gila River Telecommunications, Inc., WC Docket No. 10-90, at 3, 7-9 (May 12, 2016); and Comments of National Tribal Telecommunications Association, WC Docket Nos. 10-90, 14-58, CC Docket No. 01-92, at 4, 7-14 (May 12, 2016); Reply Comments of the National Congress of American Indians, WC Docket Nos. 10-90, 14-58, CC Docket No. 01-92, at 3-4 (June 8, 2016); Reply Comments of the South Dakota Telecommunications Association, WC Docket Nos. 10-90, 14-58, CC Docket No. 01-92, at 2 (June 13, 2016).

[121] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3089, para. 1 (modernizing "the rate-of-return program to . . . efficiently target support to areas that need it most . . .").

[122] Consistent with past precedent in the high-cost program, "Tribal lands" include any federally recognized Indian tribe's reservation, pueblo or colony, including former reservations in Oklahoma, Alaska Native regions established pursuant to the Alaska Native Claims Settlements Act (85 Stat. 688), and Indian Allotments, as well as Hawaiian Home Lands—areas held in trust for native Hawaiians by the state of Hawaii, pursuant to the Hawaiian Homes Commission Act, 1920, Act July 9, 1921, 42 Stat. 108, et seq., as amended. *See USF/ICC Transformation Order*, 26 FCC Rcd at 17711, n.197. This definition was adopted in that Order for purposes of the comprehensive reforms adopted to the high-cost program. *Id*. It was also used for the Tribal Mobility Fund Phase I. *Id*. at 17819-20, paras. 481-483. Carriers serving Alaska Native regions will not be eligible to obtain additional support under the measures adopted today, however, because the Commission has already established a separate plan tailored to meet the needs of carriers serving Alaska. *See Alaska Plan Order*, 31 FCC Rcd at 10139 (2016). Similarly, Tribal support will not be available to carriers already authorized to receive A-CAM support or to carriers subject to a universal service support recovery action, *see, e.g.*, *Sandwich Isles Communications, Inc.*, Order, WC Docket No. 10-90, 31 FCC Rcd 12999 (2016) (*Sandwich Isles Order*).

[123] *See Lifeline & Link Up Reform & Modernization*, WC Docket Nos. 11-42, 09-197, 10-90, Second Further Notice of Proposed Rulemaking, Order on Reconsideration, Second Report and Order, and Memorandum Opinion and Order, 30 FCC Rcd 7818, 7903, para. 257 (2015).

[124] ITTA Comments at 23-24; WTA Comments at 20; ADTRAN Comments at 11; Blooston Rural Carriers Comments 4 11-12; ICORE Comments at 4; TCA Comments at 5.

additional support from this proposed factor that it could meet its revenue requirement without any subscribers and could receive more than an additional dollar of support for each additional dollar it spent. In contrast, the Tribal Broadband Factor we adopt here makes model-based support more attractive for carriers serving Tribal lands by addressing a very specific element of model support—the estimated end-user revenues. NTTA further argues that, even with the Tribal Broadband Factor, most carriers serving Tribal lands are estimated to receive less support than they currently do under legacy support mechanisms.[127] We note that some carriers have elected to receive A-CAM despite a reduction in support due to the stability of support and improved incentives for efficiently offering service.[128]

58. *Term of Support*. We adopt a ten-year term of support for carriers that elect the new model offer, beginning January 1, 2019. We conclude carriers electing the new model offer should have ten-year terms to maximize broadband deployment. A ten-year term will also permit the Commission to align the deployment obligations of those accepting the new model offer with the terms set for the existing A-CAM carriers without adjusting the new model offer to a shorter term. Further, beginning the new model period on January 1, 2019 will reduce the short-term burden on the Fund; an earlier date would require the possible upfront payment of true-ups associated with a prior start date.

59. A ten-year term for the new model offer will align the termination of the term of the new model offer with existing A-CAM carriers that accept the revised offer adopted above. Multiple commenters supported aligning the terms of support, and none opposed it.[129] Carriers that decline the revised offer will have terms that end prior to the term of the new model offer. We anticipate that the Commission will take into account the different termination dates in a subsequent rulemaking to determine how support will be awarded at the end of the 10-year term and develop a plan that addresses them.

60. *Transition*. We adopt the same three-tiered transition process for carriers that receive less A-CAM support than they had received under legacy support mechanisms as we used for existing A-CAM recipients. Specifically, we base the transition payments on the percentage difference between model support and legacy support, as described in the *2016 Rate-of-Return Reform Order*.[130] In that Order, the Commission found that "a tiered transition is preferable because it recognizes the magnitude of the difference in support for particular carriers. At the same time, the transition is structured in a way that prevents carriers for whom legacy support is greater than [A-CAM] support from locking in higher amounts of support for an extended period of time."[131] USTelecom and Concerned Rural LECs support the tiered transition process.[132]

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[125] Comments of Sacred Wind Communications, Inc., WC Docket No. 10-90 et al., at 12-13 (May 25, 2018) (SWC Comments).

[126] Comments of Gila River Telecommunications, Inc., WC Docket No. 10-90 et al., at 5-6 (May 25, 2018) (Gila River Comments); Comments of The National Tribal Telecommunications Association, WC Docket No. 10-90 et al., at 2-6 (May 25, 2018) (NTTA Comments).

[127] NTTA Comments at 5.

[128] Forty-five offers of model-based A-CAM support in which the model support was less than legacy support (glide-path carriers) were accepted by carriers. *See A-CAM Revised Offer Order and/or FNPRM*, 31 FCC Rcd at 13777, para. 7.

[129] ITTA Comments at 27-28; USTelecom Comments at 16-17.

[130] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3115-16, paras. 72-76.

[131] *Id.* at 3115, para. 72.

[132] USTelecom Comments at 17; Comments of the Concerned Rural LECs, WC Docket No. 10-90 et al., at 14-17 (May 25, 2018) (Concerned Rural LECs Comments)

61. Several commenters propose alternatives to the transition payments that focus on capping reductions to a specific percentage of current support levels.[133] We decline to adopt these proposals. Permanently locking carriers into specified levels of support based on the legacy mechanisms, higher than what the model would provide, is inconsistent with the Commission's goal of moving carriers toward more rational, efficient levels of support.

62. As in the *2016 Rate-of-Return Reform Order*, if the difference between legacy and model-based support is 10% or less, the carrier will have a one-year transition; if greater than 10% but not more than 25%, then the transition period will be four years; and if the difference is greater than 25%, then the transition will occur over the full-term of the plan, with no extra transition support only in the final year of the term.[134]

63. For carriers electing the new model offer, we adopt 2018 claims as the base year for calculating transitional support. This is the most recent year for which complete data will be available when the new model offers are likely to be released.

64. *Deployment Obligations*. We adopt robust obligations for carriers accepting the new model offer to deploy 25/3 Mbps to all fully funded locations.[135] This requirement is consistent with our goal of realizing widespread deployment of 25/3 Mbps service throughout rural America.[136] In adopting the speed obligations in the *2016 Rate-of-Return Reform Order*, the Commission noted that "our minimum requirements for rate-of-return carriers will likely evolve over the next decade."[137] The Commission acknowledged, in particular, NTCA's argument that "a universal service program premised on achieving speeds of 10/1 Mbps risks locking rural America into lower service levels."[138] Although the Commission agreed that "our policies should take into account evolving standards in the future," it required carriers electing A-CAM to deploy 25/3 Mbps service to only a fraction of their fully funded eligible locations.[139] Our recent experience with the CAF Phase II auction, which resulted in more than 99.7% of new locations being served by 25/3 Mbps service, affirms our conclusion that a higher standard of service is achievable.[140] Accordingly, we do not adopt the same speed requirement as are used for existing A-CAM carriers, as urged by several commenters.[141] We instead require carriers electing model support to maintain voice and existing broadband service as of December 31, 2018, and to offer 25/3 Mbps or higher service to at least the number of locations fully funded by the model by the end of the support term.

65. Consistent with the previous A-CAM offer, we also require carriers electing model support to offer at least 4/1 Mbps to a defined number of locations that are not fully funded by the end of

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[133] NTCA Comments at 43; WTA Comments at 18; GVNW Reply Comments at 28; Shawnee and Moultrie Reply Comments at 5.

[134] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3115-16, paras. 72-76.

[135] More specifically, carriers are required to deploy 25/3 Mbps service to a number of eligible locations at least equal to the number of fully funded locations. A carrier may satisfy its 25/3 Mbps service obligation by serving eligible locations that are not fully funded.

[136] *See* 47 U.S.C. § 254 (b)(2)-(3); 47 U.S.C. § 1302; *2018 Section 706 Report*.

[137] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3097, para. 24.

[138] *Id.*

[139] *Id.* at 3097-98, paras. 24-25.

[140] *Auction 903 Public Notice*.

[141] ITTA Comments at 27; ADTRAN Comments at 9; USTelecom Comments at 17-18. For the initial A-CAM offer, the Commission applied a formula, based on density, requiring 25/3 Mbps and 10/1 Mbps deployment to fully funded locations. *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3097-99, paras. 23-26. We note that WTA proposed adjusting and reducing deployment obligations to reflect the shorter term proposed in the NPRM. *See* WTA Comments at 19. Because we adopt a full ten-year term for the new model offer, WTA's proposal is moot.

the support term. Carriers with a density of more than 10 housing units per square mile will be required to offer at least 4/1 Mbps to 50% of all capped locations; and carriers with a density of 10 or fewer housing units per square mile will be required to offer at least 4/1 Mbps to 25% of all capped locations. The remaining capped locations will be subject to the reasonable request standard.[142]

66. We will require carriers electing the new model offer to provide a minimum usage allowance of the higher of 170 GB per month or one that reflects the average usage of a majority of consumers, using Measuring Broadband America data or a similar data source.[143] In addition, we will require carriers electing to receive model support to certify that 95% or more of all peak period measurements of round-trip latency are at or below 100 milliseconds.[144] This latency standard will apply to all locations that are fully funded. As stated previously, the Commission "recognize[s] there may be need for relaxed standards in areas that are not fully funded, where carriers may use alternative technologies to meet their public interest obligations."[145] Therefore, we adopt the high-latency metric used in the CAF Phase II auction proceeding for any capped locations served by a non-terrestrial technology.[146] Under the high-latency standard, carriers are required to certify that 95% or more of all peak period measurements of round-trip latency are at or below 750 milliseconds, and with respect to voice performance, a score of four or higher using the Mean Opinion Score (MOS).[147]

67. We adopt the same deployment milestones that the Commission required for existing A-CAM recipients, except delayed by two years to reflect the later start of the ten-year term.[148] Specifically, companies accepting the new model offer will be required to offer at least 25/3 Mbps service to 40% of fully funded locations by the end of 2022, to 50% of the requisite number of funded locations by the end of 2023, an additional 10% each year thereafter, and 100% by 2028. In addition, by the end of 2028, these carriers will be required to offer 4/1 Mbps to the requisite percentage of locations depending on density. We also provide the same flexibility afforded other A-CAM recipients to deploy to only 95% of the required number of fully funded locations by the end of the term of support.[149]

68. Consistent with existing obligations, we require carriers to report geocoded location information for all newly deployed locations that are capable of delivering broadband meeting or

[142] *See Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order et al., 29 FCC Rcd 7051, 7071-75, paras. 63-72 (2014) (declaratory ruling regarding which requests should be deemed unreasonable under the Commission's rules and policies) (*April 2014 Connect America Order*). We also update section 54.313(f)(1)(i) to explicitly include a reasonable request certification for all A-CAM carriers. *See* 47 CFR § 54.308(a)(1)(ii)(C); *see also 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3100, para. 29.

[143] *See Wireline Competition Bureau Announces Results of 2018 Urban Rate Survey for Fixed Voice and Broadband Services, Posting of Survey Data and Explanatory Notes, and Required Minimum Usage Allowance for ETCs Subject to Broadband Public Interest Obligations for All United States Carriers, Including Carriers in Alaska*, WC Docket No. 10-90, Public Notice, 32 FCC Rcd at 9339, 9341 (WCB 2017).

[144] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3099-3100, para. 28.

[145] *See id*. at 3099, para. 28.

[146] *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order and Order on Reconsideration, 32 FCC Rcd 1624, 1627, para. 11 (2017) (*Phase II Auction FNPRM Order*). *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3099-3100, para. 28.

[147] *See id.*

[148] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3100-01, para. 32. This term aligns with the new 10-year term of support for existing A-CAM carriers that we adopt today.

[149] *See id.* at 3101, para. 33 & n.68. Those 5% of locations would then shift into the carriers' obligations to offer service to the number of capped locations.

exceeding the speed tiers.[150] We also adopt defined deployment milestones so that the same previously adopted non-compliance measures would apply.[151]

69. *Election Process*. We adopt a single-step process whereby electing carriers make an irrevocable acceptance of the offered amount because no support adjustments will need to be made to address budget targets. We direct the Bureau to release a public notice announcing the new model-based support amounts and corresponding deployment obligations and providing carriers with 45 days to confirm that they will accept the revised offer. Any such election shall be irrevocable.

C. Ensuring Sufficient and Predictable Support for Legacy Rate-of-Return Carriers

70. To ensure sufficient and predictable support for legacy carriers and spur additional deployment of 25/3 Mbps broadband service, we increase the budget and make corresponding adjustments to carriers' buildout obligations. A budget designed to spur the deployment of 4/1 Mbps broadband to rural America is no longer sufficient or appropriate for deploying the high-speed broadband capable networks of at least 25/3 Mbps that consumers living in rural America demand.[152] Moreover, fluctuations in support reductions make it more challenging to engage in capital planning, potentially resulting in reduced broadband deployment that, in turn, could harm consumers.[153] We therefore establish a minimum threshold of support for each carrier and establish a budget for legacy carriers that is independent of the fluctuating needs of other rate-of-return support streams. Commensurate with our changes to provide a sufficient and predictable support mechanism, we adopt measurable deployment obligations that will spur the availability of 25/3 Mbps broadband service throughout rural America.

71. We also adopt further reforms to the legacy program to streamline our rules where possible and promote further predictability and efficiency. For example, we eliminate the capital investment allowance and revise the budget control mechanism to simplify our rules and promote greater certainty. Further, to ensure the efficient use of our limited funding, we reduce the maximum support that a legacy provider can obtain on a per-line basis and revise our methodology for allocating support to those areas that are close to 100% overlapped by unsubsidized competitors. Finally, we address a number of technical changes, including revising line count reporting requirements and updating accounting rules.

1. Increasing the Budget for Carriers on Legacy Support

72. To spur broadband deployment, we adopt a budget for legacy rate-of-return carriers based on 2018 unconstrained claims, including an inflationary factor to increase the budget annually. We also establish a minimum threshold of support for rate-of-return carriers.

73. *Background*. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission began a reexamination of the budget for the high-cost program by focusing on the amount of support available for rate-of-return carriers.[154] The Commission noted that it had not revised the budget since 2011 and that consumers' expectations and the Commission's requirements regarding broadband speed

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[150] *Id*. at 3117, para. 79.

[151] *Id*. at 3116, paras. 77-78.

[152] *2018 Rate-of-Return Reform Order and NPRM* at 44, para. 108. *See* NTCA Comments at 4 (discussing increase in subscribers to speeds in excess of 25 Mbps and decreases between 1 and 4 Mbps. *See also* NTCA Comments at 21 ("As consumer demands for higher-speed services increase . . . significant amounts of plant (including drops) must be replaced."); NTCA Comments at Attachment 1 (Deploying a Broadband Network – From Start to Finish (and Beyond), Vantage Point Solutions, January 2018, 3) ("Wireline networks are most commonly based on copper cables, such as coaxial or twisted pair, which struggle to keep up with the rapidly increasing broadband demands."); WTA Comments at 11 ("The transition from predominately copper voice networks and hybrid copper/fiber voice/data networks to predominately higher-speed broadband networks during the 2011-2017 period has been a major cause of higher RLEC costs.").

[153] *2018 Rate-of-Return Reform Order and NPRM* at 54, para. 148.

[154] *See id*. at 43-47, paras. 103-116.

have continued to increase.[155] The Commission sought comment on what the budget should be and how that budget should be allocated. The Commission asked whether it should adopt a separate budget for legacy carriers, and if so, whether that budget should remain at current levels or be adjusted for inflation. Finally, the Commission proposed changes to the budget control mechanism to promote greater long-term stability and predictability, while helping to motivate carriers to operate efficiently.[156]

74. Members of Congress and commenters overwhelmingly support increasing the budget for the rate-of-return carriers because these commenters believe that the existing budget has deterred investment and broadband deployment to consumers in need.[157] ITTA, NTCA, USTelecom, and WTA filed a joint proposal advocating that the "budget should be increased to an amount not less than $2.4 billion for 2018, in addition to the $200 million already separately committed to the current A-CAM Program," which should then be increased by an inflation adjustment factor.[158] With this budget amount, the industry is requesting that we authorize the full amount of funding for existing A-CAM carriers, i.e., up to $200 per location, and also fully fund HCLS and CAF BLS.[159] They also support a new A-CAM offer, but in the near term, only for those carriers that would receive less support.[160]

75. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission also proposed to provide legacy providers a threshold level of annual support that would not be subject to a budget cap, i.e., not subject to the budget control mechanism. The Commission said that establishing a level of uncapped support may give legacy carriers more predictability, allowing them to make longer term plans while knowing that certain expenses could push them above the uncapped amount and therefore would be less likely to be fully recoverable.[161] The Commission sought comment on several options for establishing a threshold level, ranging from basing a minimum level on some percentage (such as 80%) of a carrier's A-CAM support to basing it on a percentage of a carrier's unconstrained legacy support.[162] Another option was using the five-year CAF BLS forecast developed by the National Exchange Carrier Association (NECA) for the carrier-specific deployment obligation as the uncapped threshold, but subjecting any amounts greater than that to a budget control mechanism.[163]

76. NTCA argues that adopting a minimum or threshold amount of support for legacy carriers should only be a "contingency in the event that the efforts to set a proper budget . . . underestimate demand in some future period."[164] To the extent that we would adopt a minimum level of

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[155] *See id*. at 44, paras. 107-108.

[156] *Id*. at 54-56, paras. 148-154.

[157] *See* Letter from Deb Fischer, United States Senate, et al., to the Honorable Ajit Pai, Chairman, FCC, May 15, 2018, *available at* https://docs.fcc.gov/public/attachments/DOC-353746A4.pdf, *and* Letter from Kevin Cramer, Member of Congress, et al., to the Honorable Ajit Pai, Chairman, FCC, May 15, 2018 *available at* https://docs.fcc.gov/public/attachments/DOC-353132A2.pdf. *See* NTCA Comments at 15; WTA Comments at 6; Blooston Rural Carriers Comments at 6, Gila River Comments at 2-4, FWA Comments at 8, ICORE Comments at 2; Nebraska A-CAM Cos Comments at 2, SWC Comments at 8; Comments of the Small Company Coalition, WC Docket No. 10-90 et al., at 3,5,8 (May 25, 2018) (SCC Comments); TCA Comments at 2-3; US Telecom Comments at 9-12; ADTRAN Comments at 5; ERTA Reply Comments at 2; GVNW Reply Comments at 3-4. *But see* NCTA Comments at 1-2 (opposing increasing funding only for the rate-of-return cost-based incumbent local exchange carriers; if increasing the budget, award support through competitive bidding).

[158] Joint Trade Association Letter at 1.

[159] *Id*.

[160] *Id*. In sections III.A and III.B, we address new A-CAM offers and the support amounts available for those offers.

[161] *See 2018 Rate-of-Return Reform Order and NPRM* at 55, para. 151.

[162] *Id*. at 55, paras. 152-53.

[163] *Id*. at 55, para. 153.

[164] NTCA Comments at 34. *See also* Reply Comments of the National Tribal Telecommunications Association, WC Docket No. 10-90 et al., at 6 (June 25, 2018) (NTTA Reply Comments); Joint Trade Association Letter at 2 ("A

support, commenters generally support an approach that would base the minimum amount on unconstrained claims. For instance, NTCA, WTA, ITTA, and USTelecom jointly agree that any support "floor" be "based in some manner upon each carrier's unconstrained costs over the prior three years or the carrier's then current unconstrained support, whichever is lower."[165] However, the trade associations do not state how any such floor should be determined and seem to have differing views about the appropriate approach.[166]

77. Commenters generally oppose the other proposals we raised. For example, some commenters argue that basing a minimum on 80% of a carrier's A-CAM support would often result in support levels significantly below legacy amounts.[167] Moreover, NTCA argues that this approach would essentially impose A-CAM, which was voluntary, on legacy areas when those support amounts can be "wholly unreflective" of actual costs.[168] Commenters oppose the proposal to base support on NECA's five-year CAF BLS forecast because it uses "one-size-fits-all" assumptions that ignore granular level projections and therefore is unlikely to provide an appropriate carrier-specific "floor."[169]

78. *Discussion.* We address the concerns raised by Congress and the industry by adopting a budget that provides sufficient and predictable support to legacy carriers, while meeting our responsibilities as stewards of public funds. We also adopt a minimum threshold of support for legacy carriers to ensure that they receive sufficient and predicable funding to meet their revised deployment obligations. In adopting this budget for legacy carriers, we continue the progress and adherence towards the Commission's universal service reform principles and goals.[170]

a. Establishing a Budget for Legacy Carriers

79. We adopt a new budget for legacy carriers based on 2018 uncapped claims—approximately $1.42 billion—increased annually by inflation.

80. The increased legacy budget demanded by the industry and Congress[171] is consistent with our requirement to base the Commission's policies on making services in "rural, insular, and high cost areas . . . reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas."[172] Consumers demand higher speeds as they realize the benefits that come with them, and we cannot leave consumers in rural areas behind.[173] Providing legacy carriers an increased budget will provide the means and the certainty necessary to spur investments to meet demand and help achieve our universal service goals. Without increasing the budget for legacy carriers, we could expect increasing rates, diminishing deployment, and a growing gap between rural and urban areas in broadband availability.[174]

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sufficient budget as described [in the letter] should eliminate the need for any minimum threshold, or 'floor,' of support.").

[165] Joint Trade Association Letter at 2.

[166] *Id*.

[167] *See* NTCA Comments at 36, n.94; WTA Comments at 29; FWA Comments at 15; Moundville Comments at 2; and USTelecom Comments at 21.

[168] NTCA Comments at 36.

[169] *See id*. at 37. *See also* WTA Comments at 30; FWA Comments at 16; GVNW Reply Comments at 15-16.

[170] *USF/ICC Transformation Order*, 26 FCC Rcd at 17672, 17679-83, paras. 17, 46-58.

[171] *See supra* note 157.

[172] *See* 47 U.S.C. § 254(b)(3).

[173] *2018 Section 706 Report*, 33 FCC Rcd at 1698, para. 73; *see* also NTCA Comments at 3-4; WTA Comments at 7-9.

[174] *See* NTCA Comments at 11-13.

81. We determine that using 2018 unconstrained claims as the basis to reset the budget is sufficient and will help spur broadband deployment in rural areas. Since the budget control mechanism became effective, the Commission has authorized repaying legacy carriers all support reductions since July 1, 2017. We now take 2018 support claims, i.e., what the carriers are spending today, and increase that by inflation annually going forward.[175] Claims for 2018 reflect a time when legacy carriers are fully engaged in deploying and/or maintaining broadband capable networks. Accordingly, we find it is a reasonable timeframe from which to establish a budget better tailored for today's broadband needs. Furthermore, by basing the budget on 2018 unconstrained claims, we are using a figure beneficial to meeting consumers' demand because, based on the Commission's claims data, 2018 unconstrained claims are the highest since the *USF/ICC Transformation Order*.

82. Also, with a higher overall budget and a budget control mechanism that does not include a per-line reduction (discussed below), we expect a higher degree of predictability for each carrier individually—predictability that over time will increase as carriers become more familiar with the process. A budget also helps with the overall predictability of the fund, which is financially prudent and in the public interest.

83. To mitigate any harmful effects of having a lower 2018 budget, we will reimburse all support reductions due to the budget control mechanism from July 1, 2018 through December 31, 2018, or the effective date of this Report and Order, whichever is later.[176] In addition, there will be no reductions to legacy support from January 1, 2019 through June 30, 2019, as we anticipate claims to increase only slightly over 2018 claims during this time.

84. In addition, rather than awarding legacy support based on the budget remaining once other rate-of-return recipients have been funded under the overall $2 billion budget, we establish this budget for legacy providers separate and apart from the other programs. In doing so, we provide greater certainty and predictability for legacy providers. We agree that separate budgets "enable proponents of the two support mechanisms [legacy and A-CAM] to focus on how best to efficiently maximize broadband deployment under each paradigm."[177] Furthermore, we agree that "each should be afforded a budget analysis on its own bona fides without regard to the other," which will allow us in the future to better evaluate "each support mechanism on its own merits."[178] We also agree with ITTA's proposal to remove CAF ICC from the budget equation and administer it outside of the legacy budget and A-CAM support mechanism.

85. In establishing a separate budget for legacy carriers, we decline to adopt the joint industry proposal to adopt an overall budget for all the rate-of-return support mechanisms.[179] We find that an all-

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[175] *See* Broadband Alliance Comments at 6 (stating "the Commission . . . should fully fund the budget based on today's demand levels and then apply an inflationary factor going forward" and agreeing with use of an inflation factor of "either traditional GDP–CPI or Chained GDP–CPI."); *see also* ICORE Comments at 3 ("A reasonable starting point for this budget would be the total 2017 HCLS/CAF BLS􀀀related costs/revenue requirements of all Rate of Return carriers. It could then be adjusted to 2018 levels with both an inflation factor and an estimate of the total 2018 costs for additional high speed, advanced broadband services."); FWA Comments at 9 (supporting increasing the legacy budget to "put it on equal footing with the demand for funding").

[176] We direct USAC, working with WCB, to determine an efficient methodology to calculate support reductions, and make back payments to carriers in a timely manner. USAC may provide back payments in lump sum or over a period of one-year depending upon available funds.

[177] ITTA Comments at 9. *See also* Letter from Michael J. Jacobs, Vice President, Regulatory Affairs, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al., at 1 (Oct. 26, 2018) (supporting separate budgets subsequent to the Joint Trade Association Letter).

[178] ITTA Comments at 9.

[179] Joint Trade Association Letter at 1. *See also* Reply Comments of WTA – Advocates for Rural Broadband, WC Docket No. 10-90 et al., at 2-4 (June 25, 2018) (WTA Reply Comments); USTelecom Comments at 4; NTCA Comments at 41-46.

encompassing rate-of-return budget is no longer appropriate, given the different obligations and terms of the various rate-of-return funding streams. In light of how other high cost support streams have evolved, we see no reason going forward why the support amounts for A-CAM, Alaska Plan, and CAF ICC should affect total legacy support. Legacy carriers should have their own budget—a budget that is suited to allow small, rural carriers to meet consumers' demands in rural areas in furtherance of universal service goals.

86. We find that a budget in general for legacy carriers is in the public interest. In contrast to other rate-of-return support mechanisms, legacy support is based on carriers' costs, i.e., claims made for support, and support claims from legacy carriers have continued to increase since the Commission adopted a budget in 2011.[180] The industry and NECA forecast continued increases.[181] As the Commission noted in the *2018 Rate-of-Return Reform Order and NPRM*, rate-of-return regulation provides incentives for companies to operate inefficiently by "padding" operating expenses and over-investing in capital projects to increase profits.[182] Some portion of the continually increasing claims may be due to those incentives. Although commenters contend that there is no evidence to show rate-of-regulation provides incentives to operate inefficiently, that carriers lack the means to over spend/invest as a practical matter, and that the Commission's rules already counteract these alleged incentives,[183] basic economic theory confirms that such motivations exist. We also recognize, however, that network improvements to meet demand have led to increased claims.[184]

87. Setting a budget cap for legacy carriers is financially prudent and in the public interest. We must be mindful of our obligation to ensure that scarce public resources are spent judiciously. Moreover, as courts have recognized, too much subsidization could affect the affordability of telecommunications services for those that pay for universal service support, in violation of section 254(b).[185] An annual budget cap for a support mechanism that funds carriers' claims—claims that have continually increased at varying rates—helps us meet that obligation. A budget that constrains spending encourages efficiency and resourcefulness, and it ensures a relatively greater level of predictability for the overall CAF. Finally, we note that the record supports some form of a budget.[186]

b. Inflation Adjustment

88. We will adjust the new budget for legacy carriers based on 2018 uncapped claims increased annually by inflation—the United States Department of Commerce's Gross Domestic Product–Chained Price Index (GDP–CPI).[187] We note that industry supports budget adjustments using some type

[180] This is based on the Commission's internal data.

[181] *See* WTA Comments at Exhibit A; NTCA Comments at Attachment 2.

[182] *2018 Rate-of-Return Reform Order and NPRM* at 52, para. 139.

[183] *See* WTA Comments at 30-32; Comments of the Range Family of Telecommunications Companies, WC Docket No. 10-90 et al., at 1-6 (May 25, 2018); Broadband Alliance Comments at 5, 17-18.

[184] *See, e.g.*, WTA Comments at 11.

[185] *Qwest Corporation v. FCC*, 258 F.3d, 1191, 1200 (5th Cir. 2001); *Alenco Communications, Inc. v. FCC*, 201 F.3d 608, 620 (5th Cir. 2000); *Qwest Commc'ns Int'l Inc. v. FCC*, 398 F.3d 1222, 1234 (10th Cir. 2005). In adopting the budget in the *USF/ICC Transformation Order*, the Commission noted that "establishing a CAF budget ensures that individual consumers will not pay more in contributions due to the reforms" adopted. *See USF/ICC Transformation Order*, 26 FCC Rcd at 17710, para. 124. The Commission also noted that were "the CAF to significantly raise the end-user cost of services, it could undermine [the Commission's] broader policy objectives to promote broadband and mobile deployment and adoption." *Id.*

[186] *See* Joint Trade Association Letter at 1.

[187] By setting a new initial budget and increasing it for inflation, GDP–CPI, we adopt the Commission's proposal in the NPRM. *See 2018 Rate-of-Return Reform Order and NPRM* at 46, paras. 114-115. We will use the GDP–CPI price change as calculated by the Bureau of Economic Analysis of the United States Department of Commerce. *See, e.g.,* Overview and Background section of the *Universal Service Fund 2018 Submission 2017 Study Results by the*

of inflationary factor.[188] While NTCA suggests using the Employment Cost Index (ECI) because it recognizes that labor is a key component in rising costs,[189] the ECI only accounts for one specific cost input.[190] However, of the two, we find that GDP–CPI is more appropriate as it measures price changes in goods and services purchased by consumers, businesses, and governments, and is the inflationary factor we have used for many years in other legacy support mechanisms.[191]

89. Further, in using an inflationary factor to annually increase the overall budget for legacy carriers, we are not conceding that broadband deployment and maintenance costs increase over time commensurate with inflation. In the development of the Connect America Cost Model (CAM), Commission staff found that in the remote, model-supported areas we are subsidizing, costs are unlikely on average to rise going forward; roughly speaking, this is because rising labor costs are offset by falling equipment costs and productivity gains.[192] Some commenters have echoed the belief that new equipment may lower costs.[193] Nonetheless, other parties argue that their costs for labor and equipment have increased or that deployment costs have not been offset by increased productivity or lower equipment costs.[194] Therefore, we adopt an inflationary escalator to increase the budget and note that this increased support will be included in the revised calculation of mandatory deployment obligations. We use the GDP–CPI to address inflation in other high-cost support mechanisms and see no reason to deviate from that precedent here.[195] Moreover, we decline the industry's request to increase the entirety of the high-cost USF program to reflect inflation or the overall rate-of-return budget.[196] As noted above, we believe that giving legacy carriers a separate, independent budget is more appropriate at this time, and we decline to make legacy carrier support dependent on the A-CAM, the Alaska Plan, CAF ICC, or other high-cost support.

c. Adjusting the Budget to Reflect Conversion to Broadband-only Lines

90. We address issues raised regarding the effect that the increasing number of conversions to broadband-only lines are having on the budget. Several parties have raised the concern that as carriers convert voice and voice/broadband lines to broadband-only lines there will be additional pressure on the universal service budget because federal support for broadband-only lines is typically greater than for

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National Exchange Carrier Association, filed on September 28, 2018 on page 7, *available at* https://www.fcc.gov/general/necas-overview-universal-service-fund.

[188] *See* Joint Trade Association Letter at 2.

[189] *See* NTCA Comments at 53.

[190] *See* Bureau of Labor Statistics, Employment Cost Trends, https://www.bls.gov/ncs/ect/home.htm (last visited Dec. 12, 2018).

[191] *See, e.g.*, *Implementation of the Telecommunications Act of 1996: Reform of Filing Requirements and Carrier Classifications*, CC Docket No. 16-193, Order and Notice of Proposed Rulemaking, 11 FCC Rcd 11716, 11729-30, paras. 24-26 (1996), *and Implementation of the Telecommunications Act of 1996: Reform of Filing Requirements and Carrier Classifications*, CC Docket No. 16-193, Report and Order, 12 FCC Rcd 8071, 8091-92, paras. 41-44 (1997).

[192] Federal Communications Commission Peer Review of Connect America Phase II Cost Model, Response to Professor Hogendorn, Appendix, *available at* https://www.fcc.gov/general/peer-review-connect-america-phase-ii-cost-model.

[193] *See, e.g.*, ADTRAN Comments at 3 (supporting use of an inflationary factor but also noting that "electronics have grown more sophisticated, and new technologies have emerged that will allow for efficient upgrades of current facilities or deployment of new facilities to allow significantly higher speeds, but not at significantly higher costs.").

[194] *See* Blooston Rural Carriers Comments at 6; NTCA Comments at 19-20.

[195] *See* ADTRAN Comments at 4 (supporting use of GDP–CPI); *see also* Gila River Comments at 4.

[196] *See* Joint Trade Association Letter at 2. *See also* Reply Comments of the Broadband Alliance of The Midwest, WC Docket No. 10-90 et al., at 15 (June 25, 2018) (Broadband Alliance Reply Comments).

voice and voice/broadband lines.[197] This circumstance is in large part because the costs of a broadband-only line are all interstate whereas a voice or voice/broadband line has a portion of its costs recovered through intrastate sources.[198] We believe that increases in support caused by these conversions will be offset through the approach we are taking to account for support for those carriers taking the new model offer.

91. Although we currently have insufficient data to quantify this increase, we conclude that 7% is a reasonable estimate that will promote stability for legacy rate-of-return carriers. We note that carriers expecting above average numbers of broadband-only conversions (and thus greater funding increases under the legacy mechanism) are more likely to remain on legacy support than those expecting below average conversion rates, putting pressure on the legacy rate-of-return budget. A 7% increase balances our interest in accounting for expected increases without unduly increasing the rate-of-return budget while we consider long-term means of addressing these conversions, as discussed in the Further Notice below. To account for this increase, we adjust how we allocate funding for those carriers accepting the new model offer. For carriers that accept a new model offer that will receive more model support than their uncapped claims, USAC shall take those claims out of the legacy budget. However, for carriers accepting a new model offer that will receive less model support than their unconstrained claims (glide-path carriers), USAC shall take only the carriers' model support amounts out of the budget cap. We anticipate that a sufficient number of glide-path carriers will accept model-based support and that the amount of increase to the legacy budget will therefore be at least 7% of the budget cap (as adjusted for those taking model-based support), if not greater. However, to ensure that this is the case, we will increase the budget in July 2019 by 7%. Once we have determined which carriers are accepting the new model offer, if, because of the number of glide-path carriers accepting model support, the legacy budget increases by more than 7%, legacy carriers will benefit from that entire increase in the budget going into effect in July 2020. This will be a one-time increase.

92. This approach will also ensure that if carriers whose legacy support is decreasing choose model-based support, the funding that would have been available to other legacy carriers will continue to be available to those carriers that remain on legacy support. For the same reasons, after any future overlap auctions, we will also leave any resulting savings in the legacy budget. Although we believe that the new budget will account for any support demand increases due to conversions to broadband-only lines, we seek comment on whether additional measures are needed in the Further Notice accompanying this Report and Order.

d. Other proposals

93. We recognize that by setting the budget at 2018 unconstrained claims initially, we are not setting it as high as the industry requests.[199] The industry requests an overall amount that will "fully

[197] *See, e.g.,* FWA Comments, Att. 1 at 7 ("In the first two years, a converted line will be eligible for both HCLS and BLS funding which may exert extraordinary short-term demands on the required funding levels. Rapid conversion to DOB [broadband-only] services could place pressure on funding levels due to the dual funding requirement of HCLS and BLS."); NTCA Comments at 66-67 ("Under existing rules, broadband-only loop costs are assigned 100 percent to interstate common line, which in turn increases pressure on CAF BLS support and leads to significant underfunding given existing budget constraints"); ITTA Comments at 15 ("the Commission should take cognizance that conversion of consumers to consumer broadband-only loops (CBOLs) will have an impact on funding requirements as costs increasingly shift to the interstate jurisdiction. Therefore, the Commission should consider also adopting a broadband transition factor to address the future funding demands resulting from the continuing migration of consumers to CBOLs") (footnote omitted).

[198] *See* WTA Comments at 9 ("Broadband lines and services … are required to be allocated 100 percent to the interstate jurisdiction given that Internet access and other broadband services have long been deemed to be interstate in nature.").

[199] *See* Joint Trade Association Letter at 1.

fund" the entire high-cost program[200] so that there is no budget constraint.[201] Universal service support is paid by ratepayers, however, and increasing funding demands on those ratepayers could affect the affordability of telecommunications services, in violation of section 254(b).[202] By adopting an overall budget for legacy carriers based on today's support claims and then limiting future budget increases, we minimize unexpected increases in the contributions required from ratepayers.

94. Moreover, we still are providing sufficient and appropriate funding for the rate-of-return high-cost program. A-CAM carriers will receive up to $200 per location and all transition payments; Alaska Plan carriers will continue to receive their authorized amounts; CAF ICC will receive its full amounts; and for legacy carriers we will reimburse all support cuts to date due to the budget control mechanism. To encourage efficient and resourceful spending and help minimize contribution burdens, going forward, starting in July 2019, we establish a budget for the legacy carriers, but to help meet demands and obligations, we still allow for gradual and predictable annual increases. Furthermore, as explained below, we revise deployment obligations based on the projected funding that carriers will receive. As the Tenth Circuit stated in upholding the budget adopted in 2011, "the FCC quite clearly rejected any notion that budgetary 'sufficiency' is equivalent to 'complete' or 'full' funding for carrying out the broadband and other obligations imposed upon carriers who are voluntary recipients of USF funds."[203]

e. Minimum threshold of support

95. In addition to the new budget described above, we also adopt a minimum threshold of support for each carrier. The uncapped threshold will be based on a five-year CAF BLS forecast to be developed by NECA for establishing the carrier-specific deployment obligation, but any amounts greater than that may be subject to a budget control mechanism. Thus, no legacy carrier will receive less support, i.e., HCLS plus CAF BLS, as a result of budget constraints than predicted in this CAF BLS forecast.[204] We link this minimum threshold of support for each carrier to its minimum deployment obligation so that carriers will receive at a minimum, the amount of support that went into determining minimum deployment obligations. This new five-year forecast will be calculated using the budget adopted in this Report and Order, including the annual inflation adjustment, and will be used to calculate each legacy carrier's new mandatory deployment obligations. In conjunction with the new budget, this minimum threshold will provide legacy carriers the sufficiency and predictability that they have argued did not exist under the previous budget.[205] In addition, to the extent any support adjustments may be appropriate, by eliminating the per-line reduction component of the budget control mechanism, we expect that no carrier will see drastic reductions from the budget control mechanism relative to other carriers.[206]

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[200] *See* NTCA Comments at 45-46; ITTA Comments at 11-13; WTA Comments at 8-9; USTelecom Comments at 9-12.

[201] Joint Trade Association Letter at 1.

[202] *See supra* note 185.

[203] *In re: FCC 11-161*, 753 F.3d at 1060.

[204] Each legacy carrier will have a CAF BLS forecasted amount for each year from 2019-2023. A carrier's total HCLS and CAF BLS disbursements, not including true-ups, cannot be less than the forecasted amount of CAF BLS for any year as a result of the budget mechanism.

[205] *See, e.g.*, Broadband Alliance Reply Comments at 3, 5-11 (noting the "near unanimous consensus in the industry that the budget is neither predictable nor sufficient.").

[206] *See* section III.C.4.

96. While commenters support the general concept of using unconstrained claims for a support "floor,"[207] there is no consensus on how any such "floor" should be established.[208] Although some commenters express concerns with this approach,[209] we find that a minimum threshold based on a revised NECA five-year forecast, in combination with the revised budget amounts adopted herein, will ensure that carriers can meet their deployment obligations. We disagree with NTTA's suggestion that we prioritize Tribal areas, the highest-cost areas, and then all other areas because it lacks any justification of how such a proposal is consistent with the goals of the high-cost program, and in particular how it would further bringing broadband to all high-cost areas of the country.[210] And we disagree with a recent industry proposal to use each carrier's "unconstrained costs over the prior three years" as a minimum.[211] Such a proposal would essentially require the elimination of the budget constraint mechanism entirely while guaranteeing more support for each carrier than that tied to its deployment obligations. Indeed, this proposal would negate the overall predictability for the fund that a budget provides. The "floor" for each carrier would be dependent upon each's spending behavior, which can change annually or even quarterly. As the "floor" changes for each carrier, we would be required to adjust the overall budget accordingly. In other words, we could not know with as much predictability how much of the ratepayers' money we would be collectively spending each year on the high-cost program—a situation that as stewards of public funds we aim to avoid. Consequently, we decline to adopt this industry proposal.[212]

f. Revisiting the budget

97. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission sought comment on when it should next revisit the budget. Commenters support various timeframes. NTCA, WTA, USTelecom, and the Broadband Alliance suggest that the new budget should be in effect until 2026.[213] ADTRAN recommends we assess the budget four years after adoption, and FWA advocates reviewing the budget no later than three years after adoption.[214] By fully funding A-CAM, the Alaska Plan, and CAF ICC, and adopting a legacy budget that annually adjusts for inflation, we expect that rate-of-return carriers will have stable and sufficient budgets for at least the next five years. Although we do not expect to review the budget prior to 2024, it may be appropriate to revisit the budget at the end of five years to reevaluate whether any changes to the budget are appropriate.

g. Annual calculation of the budget

98. By May 1, 2019, we direct USAC, in consultation with WCB, to publish a new legacy budget cap along with the new budget adjustment factor.[215] USAC will calculate 2018 actual unconstrained legacy support claims plus one year of inflation using GDP–CPI, as reported by NECA in the most recent October annual filing. The budget cap will be that total increased by 7%. USAC, in

[207] *2018 Rate-of-Return Reform Order and NPRM* at 55, para. 153.

[208] *See* WTA Comments at 28; WTA Reply Comments at 5; USTelecom Comments at 18-21; NTCA Comments at 35; ITTA Comments at 30-31.

[209] *See* NTCA Comments at 37; WTA Comments at 30; FWA Comments at 16; *and* GVNW Reply Comments at 15-16.

[210] *See* NTTA Reply Comments at 6.

[211] Joint Trade Association Letter at 2.

[212] *See id*.

[213] NTCA Comments at 27; WTA Comments at 18; US Telecom Comments at 12; Broadband Alliance Reply Comments at 16.

[214] ADTRAN Comments at 5; FWA Comments at 9.

[215] By waiting to calculate the new budget cap for 2019, we will have actual 2018 unconstrained claims, which are not available until March 2019. In addition, publishing the budget adjustment factor by May 1, 2019 will facilitate carriers' annual filing of tariffs. The budget adjustment factor is the percentage reduction applied to total, unconstrained demand used to determine the target CAF BLS and HCLS amounts.

consultation with WCB, will calculate the budget adjustment factor using that budget cap pursuant to sections 54.901(f) and 54.1310(d), as modified in this Report and Order to eliminate the per-line reduction calculation.[216] The budget adjustment factor USAC publishes by May 1, 2019 will be in effect from July 1, 2019 to June 30, 2020.

99. By May 1, 2020, we direct USAC to publish the next legacy budget cap along with the next budget adjustment factor to be in effect from July 1, 2020 to June 30, 2021. The budget cap will be set at the previous year's budget cap, i.e., July 1, 2019 to June 30, 2020, plus inflation using GDP–CPI, which will be published in the October 2019 filing by NECA.[217] USAC shall then account for the new model offers as follows. For carriers that accept the new model offer, USAC shall deduct those carriers' 2018 actual unconstrained claims plus the two years of inflation out of the legacy budget. For glide-path carriers, USAC shall calculate the total amount by which their 2018 actual unconstrained claims plus two years of inflation exceeds their model support. If that number is greater than 7% of the 2020 budget, USAC shall increase the budget by the amount in excess of 7%.[218] In addition, prior to publishing the results of the 2020 budget cap, USAC shall compare the capped amount for each carrier with the CAF BLS five-year forecast adopted in this Report and Order. If the cap for any individual study area falls below the CAF BLS forecast for that study area in that year, USAC shall raise the cap for that study area to the amount of the CAF BLS forecast. Thus, carriers are assured of receiving at least the amount of support that will be identified in the forecast.

100. Going forward, for the 2021 budget and beyond, USAC shall annually increase the previous year's budget cap by inflation using GDP–CPI. Each year USAC shall use the budget cap to calculate the budget adjustment factor for that budget year, July 1 to June 30. Also, each year, for CAF BLS, USAC shall calculate the pro rata reductions once per year, and for HCLS, USAC shall calculate the pro rata reductions semiannually, which allows the reduction factor to reflect the new rural growth factor for HCLS that goes into effect January 1 of each calendar year. As noted above, if the cap for any individual study area falls below the CAF BLS forecast for that study area in that year, USAC shall raise the cap for that study area to the amount of the CAF BLS forecast. Based on our experience in implementing the budget control mechanism, we believe that we will enhance predictability with no discernable cost by setting the budget adjustment factor semiannually rather than quarterly.

2. Deployment Obligations for Legacy Carriers

101. To maximize the benefit resulting from our new legacy budget, we revise the deployment obligations for legacy carriers commensurate with the minimum threshold of support that will not be subject to the budget constraint. We also revise the minimum speed obligation to 25/3 Mbps, up from 10/1 Mbps.

102. *Background*. In the *2016 Rate-of-Return Reform Order*, the Commission adopted defined deployment obligations for carriers receiving CAF BLS. The obligations were based on each legacy carrier targeting a defined percentage of its five-year forecasted CAF BLS support to the deployment of broadband of 10/1 Mbps where the carrier had not already deployed.[219] Deployment

[216] *See* 47 CFR §§ 54.901(f) and 54.1310(d).

[217] USAC shall keep any savings from auctioning off certain overlapped areas in the legacy budget. For instance, if the Bureau auctions support in a study area where the most recent year's unconstrained legacy claims were $1 million, and after the auction, support for the study area will be $25,000 annually, USAC will keep $975,000 in the legacy budget. That $975,000 will be included in the total budget adjusted for inflation. In other words, USAC shall take only the annual auction amounts out of the budget cap.

[218] Our direction to USAC assumes that the timing of A-CAM II will not reasonably allow USAC to factor in the results for the July 2019 to June 2020 legacy budget. To the extent that WCB and USAC determine otherwise, we permit USAC to factor in the A-CAM II results for the July 2019 to June 2020 legacy budget consistent with this Report and Order.

[219] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3149, paras. 166-68.

obligations were determined by dividing the dollar amount of targeted CAF BLS by a cost-per-location amount.[220] In forecasting the amount of CAF BLS that a carrier would receive, NECA incorporated the impact of the budget control mechanism along with a number of other assumptions.[221] In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission sought comment on changing deployment obligations if it adopted a minimum level of support.[222]

103. Some commenters supporting an increased budget for legacy carriers note that there should be a corresponding increase in deployment obligations. For example, NTCA states that, "a fundamental tenet of universal service policy should be that buildout obligations correspond to the level of USF support that carriers can reasonably expect to receive over the buildout period."[223] In contrast, Blooston "submit[s] that caution should be exercised before enacting further deployment obligations."[224]

104. *Discussion*. We revise the deployment obligations for legacy carriers commensurate with the revised budget and minimum threshold of support adopted in this Report and Order.[225] We also reset the five-year deployment term and revise the minimum speed obligation to 25/3 Mbps, up from 10/1 Mbps. By increasing the budget for legacy carriers, we expect those carriers to do more to meet consumer demand and our obligations than they did when the budget was first adopted in 2011.

105. Under the Commission's rules, a carrier's deployment obligations are based, in part, on its five-year forecasted CAF BLS.[226] The original five-year obligations were based on forecasted CAF BLS pursuant to the budget and rules in effect at the time, and also then-current data.[227] Now that we reset the budget for the legacy carriers and adopt a minimum level of support of no less than a carrier's revised CAF BLS five-year forecast, those original forecasts are outdated, and WCB must update them.[228] We disagree with USTelecom and Blooston to the extent they do not support changing deployment obligations at this time.[229] As NTCA stated, buildout obligations should correspond to the level of support;[230] given that we are increasing the amount of support, broadband deployment obligations should increase as well. The assumptions in the five-year forecast of the total CAF BLS support for each rate-of-return legacy study area for the purposes of determining deployment obligations are provided in Appendix D.

106. We further find that it is necessary to provide carriers revised CAF BLS deployment obligations at the time we expect to make the new model offers so that carriers can properly evaluate their

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[220] *Id*. at 3150-52, paras. 169-171.

[221] *Id*. at 3149-50, paras. 166-67, 3315-16, Appendix. E.

[222] *See 2018 Rate-of-Return Reform Order and NPRM* at 56, para. 155.

[223] NTCA Comments at 38.

[224] Blooston Rural Carriers Comments.

[225] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3315, Appendix E.

[226] 47 CFR § 54.308(a)(2)(i).

[227] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3315, Appendix E.

[228] The rule changes that affect CAF BLS forecasts are the elimination of the capital investment allowance, the elimination of the per-line reductions from the budget control mechanism calculation, and the lowering of the per line, per month cap. *See* sections III.C.3, III.C.4, III.C.5. *See also* 47 CFR § 54.308(a)(2) (the methodology for determining the defined number of locations). *See* NTCA Comments at 38 (stating that deployment obligations corresponding "to the level of USF support that carriers can reasonably expect to receive" is a "fundamental tenant" of universal service policy and supporting use the same formula adopted in 2016 to recalculate deployment obligations.").

[229] *See* USTelecom Comments at 22; Blooston Rural Carriers Comments at 10.

[230] *See* NTCA Comments at 38.

options. Because we expect the new offers in early 2019 and actual 2018 claims will not be available until March 2019, projected claims for 2018 may be used for calculating forecasted CAF BLS.

107. In addition to forecasted CAF BLS, part of the calculation for determining deployment obligations is a cost-per-location figure based on one of two methodologies.[231] We update both methodologies to reflect that 25/3 Mbps is the Commission's new broadband standard. The methodologies also factor in the per-line, per-month cap, which we revise in this Report and Order.[232]

108. Revising deployment obligations at this junction is also consistent with the precedent established in the *2016 Rate-of-Return Reform Order*. There, the Commission appropriately decided that at the end of the five-year deployment term, "carriers with less than 80 percent deployment of broadband service meeting then-current standards in their study areas will be required to utilize a specified percentage of their five-year forecasted CAF BLS to deploy broadband service meeting the Commission's standards where it is lacking in subsequent five-year periods."[233] Because we are increasing the budget for legacy carriers, setting a minimum threshold of support, and implementing the current broadband standard of 25/3 Mbps, we are replacing the prior five-year, 10/1 Mbps deployment obligations with new obligations that reflect the increased budget and broadband speed. Therefore, allowing carriers a full five years—rather than the remaining three years of the original deployment term—to complete deployment is warranted.[234]

109. To ensure that consumers in rural areas enjoy a reasonably comparable quality of broadband as those in urban areas,[235] we revise the deployment obligations to require recipients of CAF BLS to offer broadband service at actual speeds of at least 25/3 Mbps.[236] Broadband of at least 25/3 Mbps is now the Commission standard, and deployment obligations for our legacy program must reflect that.[237]

110. To be consistent with CAF BLS deployment obligations being based on a five-year term, the deployment term will run from the effective date of this Report and Order until December 31, 2023. For administrative convenience, we base this new term on the calendar year starting January 1, 2019.[238] Further, we will count towards the new five-year obligation any locations CAF BLS carriers deployed to with at least 25/3 Mbps since May 25, 2016, regardless of whether the carriers had defined deployment obligations in the original term.[239] CAF BLS carriers that have not had HUBB portal reporting obligations will be provided an opportunity to certify as needed 25/3 Mbps or higher locations deployed to since May 25, 2016.[240] We also maintain the Commission's prohibition on deploying "terrestrial

[231] 47 CFR § 54.308(a)(2)(ii).

[232] *See* Section III.C.5.

[233] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3153, para. 175.

[234] The legacy carrier mandatory deployment obligations adopted in the *2016 Rate-of-Return Reform Order* are being replaced by the obligations adopted in this Report and Order, so all milestones associated with that earlier offer are no longer in effect.

[235] *See* 47 U.S.C. § 254(b)(3).

[236] We revise 47 CFR §§ 54.308(a)(2) and 54.313(f)(1)(i) to reflect 25/3 Mbps as the new standard including the standard for reasonable request. To the extent it is not reasonable to provide service of at least 25/3 Mbps, legacy carriers should determine whether serving a location at a lesser speed is reasonable.

[237] *See 2018 Section 706 Report*, 33 FCC Rcd 1660, 1667-68, paras. 21-22 (2018). *See also* NTCA Comments at 47-48.

[238] *See* 47 CFR § 54.316(b)(3)(i).

[239] *See Wireline Competition Bureau Provides Guidance to Carriers Receiving Connect America Fund Support Regarding their Broadband Location Reporting Obligations*, WC Docket No. 10-90, Public Notice, 31 FCC Rcd 12900, 12905 (WCB 2016).

[240] CAF BLS carriers without defined deployment obligations, i.e., those with 80% or greater deployment of 10/1 Mbps, have been reporting deployment not in the HUBB, but in the FCC Form 481.

wireline technology in any census block if doing so would result in total support per line in the study area to exceed" the per-line, per-month cap, as revised in this Report and Order.

111. In the *2016 Rate-of-Return Reform Order*, the Commission did not set mandatory deployment obligations for those carriers that had deployed broadband of 10/1 Mbps to 80% or more of their study areas, as determined by FCC Form 477.[241] Rather, the Commission stated that it would monitor the deployment progress of legacy carriers without defined buildout obligations and could "revisit this framework in the future if such carriers do not continue to make reasonable progress on extending broadband."[242] Although those carriers with 80% or greater deployment of 10/1 Mbps have in many cases reported additional deployment, we are unable to evaluate their progress without an understanding of how this new deployment relates to the mandatory obligations we have set for other carriers. Therefore, we find that all legacy carriers should be subject to deployment obligations.

112. As we did in 2016, we find that carriers' mandatory deployment obligations should be determined based on a percentage their CAF BLS, with those carriers with greater deployment devoting a lower percentage of support to new deployment and those with relatively lower levels of deployment devoting a higher percentage to new deployment. Therefore, legacy rate-of-return carriers with less than 20% deployment of 25/3 Mbps broadband service in their entire study area, based on the most recently available FCC Form 477 data, will be required to use 35% of their five-year forecasted CAF BLS support specifically for the deployment of 25/3 Mbps broadband service where it is currently lacking. Rate-of-return carriers with 20% or greater but less than 40% deployment of 25/3 Mbps broadband service in their entire study areas, will be required to use 25% of their five-year forecasted CAF BLS support specifically for the deployment of 25/3 Mbps broadband service where it is currently lacking. Rate-of-return carriers with 40% or greater deployment of 25/3 Mbps broadband service in their entire study areas, will be required to use 20% of their five-year forecasted CAF BLS support specifically for the deployment of 25/3 Mbps broadband service where it is currently lacking. Once a carrier has deployed broadband service of 25/3 Mbps to all locations within the study area, it has satisfied its deployment obligation, although we encourage such carriers to continue to look for ways to increase the speed and reduce the latency of their services. Because all legacy carriers will have defined deployment obligations, all will be required to report their locations deployed in the HUBB portal.

3. Elimination of the Capital Investment Allowance

113. We find that the capital investment allowance should be eliminated because its burdens and inefficiencies outweigh any benefits.

114. *Background*. In the *2016 Rate-of-Return Reform Order*, the Commission adopted a capital investment allowance that limits support for capital expenses to target finite universal service support to carriers with less broadband deployment.[243] In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission sought comment on whether the current limitation on capital expenditures is successfully encouraging prudent investments or is instead creating unnecessary burdens or deterring efficient investments.[244] Specifically, the Commission asked whether the company-specific limitations reflect reasonable upper limits on the amount of capital expenses that a carrier need incur. The Commission also sought comment on whether there are modifications that would improve operation of the limitation or if it should be eliminated.[245]

115. Commenters request changes to the capital investment allowance or that it be eliminated altogether. ITTA recommends that that we eliminate the capital investment allowance because it does not

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[241] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3152, para. 173.

[242] *Id*. at 3152, para. 173.

[243] *See id.* at 3127-31, paras. 105-115.

[244] *2018 Rate-of-Return Reform Order and NPRM* at 60, paras. 167-68.

[245] *Id*.

encourage efficient spending and is creating unnecessary burdens.[246] FWA also supports elimination of the capital investment allowance because of the administrative burden on carriers and the inefficiencies it creates.[247] Concerned Rural LECs have found that overall the capital investment allowance has not had a significant impact and is not burdensome for carriers to administer.[248] However, they argue that we should eliminate the construction allowance adjustment and the per-location limitation because they are burdensome and "not appropriately defined."[249] NTCA supports changing the capital investment allowance to make it "simpler to implement, monitor, and enforce."[250] Specifically, NTCA proposes to replace the capital investment allowance with an engineer's certification and a requirement to retain contracts for material and labor.[251] At a minimum, NTCA requests that we eliminate the project-based limitation within the capital investment allowance.[252] WTA supports NTCA's proposed changes to the capital investment allowance.[253]

116. *Discussion*. We find that the capital investment allowance should be eliminated because the burdens it imposes outweigh the benefits. To show compliance with the capital investment allowance, legacy carriers must track every capital expenditure and allocate it to locations affected by that expenditure—something carriers were not required to do previously. While carriers always account for their capital expenditures, the requirement to tie these expenditures to particular locations is difficult and time consuming.[254] In addition, the capital investment allowance may discourage marginal capital expenditures that are economically efficient. For instance, the capital investment allowance, which limits the total amount a carrier can spend on a project, may prevent a carrier from deploying broadband to an additional location or locations as part of an existing project if such expenditures would exceed the capital investment allowance. Accordingly, we agree with commenters that the capital investment allowance does not encourage efficient spending and is creating unnecessary burdens.[255] Moreover, we have found no evidence that the capital investment allowance has encouraged additional capital investment by those carriers below the average level of broadband deployment. Because the burdens and disincentives on deployment in the current capital investment allowance outweigh the purported benefits, we find that elimination of the capital investment allowance is appropriate.[256]

117. We decline to adopt NTCA's proffer of an engineer's certification and record retention.[257] Carriers are already required to retain documentation for auditing purposes so that USAC can determine

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[246] ITTA Comments at 31-32.

[247] FWA Comments at 20.

[248] *See* Concerned Rural LECs Comments at 22-25.

[249] *Id.*

[250] NTCA Comments at 71.

[251] *Id*.

[252] *Id*. at 72.

[253] WTA Reply Comments at 9.

[254] *See* FWA Comments at 21 (". . . loop expenditures must be tracked separately from non□loop expenditures . . . the number of locations applicable must be tracked by project [and] . . . summarized in a report to show that the capital investment allowances were not exceeded. . . Clients must track specific investments that exceed the limitation, probably in separate subaccounts, and these must be accounted for in cost studies and USF submissions. This adds a whole layer of red tape to the cost studies and USF reporting processes.").

[255] *See* ITTA Comments at 31-32; FWA Comments at 20-21.

[256] To eliminate the capital investment allowance, we remove paragraphs (b) through (m) of section 54.303. The effective date of this Report and Order will likely fall early in 2019. We note that the capital investment allowance will not apply to any relevant filings made in 2019, and therefore, it will not apply to any costs incurred in 2018.

[257] NTCA Comments at 71.

whether support is being used for its intended purpose,[258] and NTCA's proposal appears to increase the paperwork burden on carriers without much benefit.

4. Simplifying the Budget Control Mechanism Calculation

118. In this section, we modify sections 54.901(f) and 54.1310(d) and eliminate the per-line reduction calculation that is part of the budget control mechanism.[259]

119. *Background*. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission proposed to modify the budget control mechanism to use only a pro rata reduction applied as necessary to achieve the target budget amount and no longer include a per-line reduction.[260] The Commission noted that its experience thus far with per-line reductions has led to larger and more unpredictable swings in support than might otherwise be expected. The Commission therefore reasoned that using only a pro rata reduction may be a more predictable and equitable way to reduce support amounts because all carriers' support would be reduced by the same percentage. It would also be a less complex mechanism to administer if the per-line reduction were eliminated. Accordingly, the Commission proposed that the budget control mechanism would operate in the same manner as the current one, but without the per-line reduction aspect.

120. There is support in record for both eliminating the per-line reduction and for keeping it. ITTA states that eliminating the per line reduction would "level the playing field" and would not disadvantage a carrier on the basis of its size.[261] NTCA disagrees and argues to keep the per-line reduction because it is part of a "carefully designed balance" of "different carriers, large and small, population densities and terrain."[262] NTCA also argues that there is no basis for the argument that the calculation is overly complex to administer and would not provide greater predictability with the budget control mechanism.[263] WTA agrees with NTCA and says that "support reductions per customer for the smaller RLECs" that serve some of the highest-cost areas would increase.[264] FWA argues to maintain the per-line reduction until we understand the effect of the budget control mechanism to avoid "adversely impacting smaller rate□of□return carriers."[265]

121. *Discussion*. We eliminate the per-line reduction calculation that is part of the budget control mechanism. The previous Commission adopted the per-line and pro rata calculation on grounds that it struck a "fair balance among differently-situated carriers."[266] Although NTCA argues that incorporating the per-line reduction is part of a "carefully designed balance" or "carefully struck balance" between larger and smaller rate-of-return incumbent local exchange carriers (LECs),[267] we find that this two-part calculation has resulted in some carriers bearing an unreasonably large share of the support limit.

122. When adopting the budget control mechanism with both the per-line and pro rata mechanisms, the Commission expected a "fair balance" among the legacy carriers, large and small. Data since adoption of this mechanism show, however, that the per-line reduction has resulted in an increasingly wide variation of cuts to carriers' support. The table below details across all legacy carriers

[258] 47 CFR § 54.320(b).

[259] *See* 47 CFR §§ 54.901(f), 54.1310(d).

[260] *See 2018 Rate-of-Return Reform Order and NPRM* at 54-55, para. 150.

[261] ITTA Comments at 29.

[262] NTCA Comments at 40; NTCA Reply Comments at 31.

[263] NTCA Comments at 41.

[264] WTA Comments at 27.

[265] FWA Comments at 13.

[266] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3143, para. 150.

[267] NTCA Comments at 40.

over different time periods reductions in support due to the budget control mechanism with the per-line reduction.

From	To	Average Reduction	Standard Deviation	5th Percentile	95th Percentile	Weighted Average Reduction
9/2016	12/2016	5.3%	2.3%	3.5%	8.2%	4.6%
1/2017	6/2017	9.7%	4.4%	6.6%	14.0%	8.7%
7/2017	6/2018	13.6%	4.0%	9.1%	20.2%	12.3%
7/2018	6/2019	17.0%	6.3%	11.5%	24.9%	15.5%

Number of Legacy Study
Areas: 654

123. What started as a relatively narrow variation has become significantly wider, and now ranges (between the 5th and 95th percentile) from 11.5% to 24.9% reductions in claimed support. We thus conclude that the per-line reduction has not, over time, resulted in the "fair balance" that the Commission originally anticipated. The carriers collectively are exceeding their budget, but in applying the budget control mechanism, we cut some carriers significantly more than others. Given the large variations we have now seen, we believe that it is more equitable for each carrier to have the same percentage reduction across the board.[268] Accordingly, we eliminate the per-line reduction calculation that is part of the budget control mechanism.

124. In addition to making the budget control mechanism more equitable, eliminating the per-line reduction will make it simpler to implement administratively. Eliminating the per-line calculation will make it easier for carriers to determine what their specific support reduction will be and make application of the budget control mechanism more transparent.

5. Monthly Per-Line Limit on Universal Service Support

125. We amend our rules to reduce the monthly per-line limit on support from $250 to $225, effective July 1, 2019, and then to $200, effective July 1, 2021.[269] We find that reducing the presumptive cap on support will advance the Commission's goal of implementing responsible fiscal limits on universal service support.[270]

126. *Background*. The Commission adopted the monthly limit on support in the *USF/ICC Transformation Order*, finding that amounts higher than $250 per loop per month (not including CAF ICC) should not be provided to carriers without further justification.[271] In adopting that limit, the Commission noted that only 18 incumbent rate-of-return carriers received more than $250 per loop each month and estimated that only 12 would be subject to the limit after other reforms adopted in the *USF/ICC Transformation Order* were applied.[272] The Commission also emphasized that there may be legitimate reasons why certain companies have extremely high support amounts per-line and noted that "any carrier affected by the $250 per-line monthly cap may file a petition for waiver or adjustment of the cap that would include additional financial data, information, and justification for support in excess of the cap."[273]

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[268] *See* ITTA Comments at 29 ("Using only a pro rata reduction would level the playing field, and not advantage or disadvantage any carrier on the basis of its size as measured by line count.").

[269] 47 CFR § 54.302.

[270] *USF/ICC Transformation Order*, 26 FCC Rcd at 17764-66, paras. 272-79.

[271] *Id.*

[272] *Id.* at 17766, para. 277.

[273] *Id.* at 17766, para. 278.

127. Several commenters oppose any reduction of the monthly per-line cap. NTCA and SCC argue that the Commission's experience with the $250 monthly per-line limit is not a sufficient basis for lowering the cap further.[274] In addition, South Park claims that the withdrawal of many carriers with support above the current $250 cap from the waiver process indicates that that waiver process is unreasonable and burdensome.[275] As an alternative, South Park proposes to modify the operation of the monthly per-line cap or to exempt carriers subject to monthly per-line cap from the budget constraint mechanism.[276]

128. FWA expresses concern that we should not reduce the monthly per-line cap because the waiver process requires resources and time, and carriers cannot afford to have reductions in support while their waivers are pending.[277] Similarly, WTA argues that the budgetary relief provided by this reduction would be outweighed by "the potentially crippling high-cost support reductions imposed upon the 14-to-41 affected high-cost [carriers]."[278] Finally, TCA complains that the effect of the monthly per-line cap or other limitations on support have the effect of slowing broadband deployment because carriers reduce investment to ensure that they do not trigger a cap or limitation.[279]

129. *Discussion*. Our experience indicates that a lower limit is justified and will be useful in mitigating wasteful spending. Currently, approximately 14 study areas are affected by the monthly per-line limit.[280] However, carriers serving only 10 of those study areas have petitioned the Commission to justify higher support amounts, and some withdrew their requests following requests for further supporting information.[281] To date, the Commission has awarded relief to only two companies.[282] Further, our experience reviewing the waiver petitions that have been filed suggests that some companies cannot justify their high expenses.[283] Based on this history, we find that the $250 per-line monthly limit has been neither too restrictive nor likely to have a negative impact on the ability of carriers to provide service. Moreover, we note that a reduction to $200 will currently affect approximately 30 study areas

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[274] NTCA Comments at 55; NTCA Reply Comments at 32; SCC Comments at 11.

[275] Comments of South Park Telephone Company, WC Docket No. 10-90 et al., at 5 (May 25, 2018) (South Park Comments); *see also* ADTRAN Comments at 10 (arguing that lack of petitions "could reflect the costs and uncertainties surrounding any such request").

[276] South Park Comments at 7-8.

[277] FWA Comments at 16-17.

[278] WTA Comments at 34.

[279] TCA Comments at 8.

[280] *See* USAC, FCC Filings, 2018 Fourth Quarter Filings, HC01- High Cost Support Projected by State by Study Area - 4Q2018.xlsx (filter for study areas where ILEC Cap Factors (column H) is less than 1).

[281] *See* Sandwich Isles Communications, Inc. Petition for Waiver of Section 54.302 of the Commission's Rules, WC Docket No. 10-90 and WT Docket No. 10-208, at 1 (Dec. 30, 2011); Allband Communications Cooperative Petition for Waiver of Part 54.302 and the Framework to Limit Reimbursable Capital and Operating Costs, WC Docket No. 10-90, WT Docket No. 10-208 (Feb. 3, 2012); Petition for Waiver of Big Bend Telephone, Inc., WC Docket No. et al. (Feb. 6, 2012) (petition withdrawn on July 18, 2018, *see* Letter from Thomas J. Navin, Wiley Rein LLP, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al. (July 18, 2012)); Windy City Cellular, LLC Petition for Waiver of Section 54.307(e) of the Commission's Rules, WC Docket No. 10-90, WT Docket No. 10-208 (Apr. 3, 2012); Adak Eagle Enterprises, LLC Petition for Waiver of Section 54.302 of the Commission's Rules, WC Docket No. 10-90, WT Docket No. 10-208 (May 22, 2012); Accipiter Communications, Inc. Petition for Temporary Waiver of the Commission's Rules, WC Docket No. 10-90 et al. (Apr. 18, 2012); Petition for Waiver of Dell Telephone Cooperative, WC Docket No. 10-90 et al. (June 7, 2012); Petition of Border to Border Communications, Inc. for Waiver of Section 54.302 and the Framework to Limit Reimbursable Capital and Operating Expenses for the Purpose of Determining High Cost Support, WC Docket No. 10-90 (June 29, 2012); Petition for Waiver of South

that are not already subject to the $250 per-line monthly limit, and the same waiver process would be available to all affected study areas.[284]

130. We are unpersuaded by the arguments of those opposing this change. Contrary to NTCA and SCC's claims, our experience suggests that, while some carriers legitimately incur high expenses, some of the highest supported carriers have been found to have wasteful or abusive expenses and/or improper accounting procedures. In the *Adak Reconsideration Order*, for example, the Commission denied relief of the $250 cap, affirming findings that the company had "excessive and unreasonable" operating expenses, unwarranted executive compensation, and had engaged in improper affiliate transactions.[285] The Commission similarly identified noncompliance in evaluating Allband's request for waiver of the $250 cap, finding that Allband's consistent misapplication of our cost allocation rules rendered its cost accounting "unreliable."[286] Finally, the Commission uncovered improper support payments of more than $27 million in connection with its review of Sandwich Isles Communications, finding that the carrier had misclassified costs and received support for inflated and ineligible expenses.[287] Other carriers may not seek waiver of the $250 monthly per-line limit because they wish to avoid scrutiny. Indeed, despite NTCA's arguments,[288] other existing controls to promote the efficient distribution of support have not been sufficient to prevent the reporting of wasteful or abusive expenses by the highest cost carriers. We do not find that our waiver process is unreasonable and burdensome.[289] Rather, our review of previously filed waivers has shown that it is more likely that carriers would not be able to justify their high expenses and sought to avoid embarrassing scrutiny. In our experience, carriers have contributed to the time it has taken to resolve the waiver petitions because of their own reluctance to provide supporting data and the number of violations of our accounting rules that the Commission has discovered.

131. We do not agree that the budgetary relief that would be provided by this reduction is insignificant or that possible reductions in support will be crippling. Even if the budgetary relief is small,

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Park, L.L.C., WC Docket No. 10-90 et al. (Nov. 27, 2012) (petition withdrawn on Nov. 14, 2013, *see* Letter from John Kuykendall, Vice President, JSI, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 05-337 (Nov. 14, 2013); Petition for Waiver of South Central Telephone Association, Inc., WC Docket No. 10-90 et al. (Dec. 6, 2012).

[282] *See Allband Communications Cooperative Petition for Waiver of Certain High-Cost Universal Service Rules*, WC Docket No. 10-90, Order, 27 FCC Rcd 8310 (WCB 2012); *Accipiter Communications, Inc. Petition for Temporary Waiver of Certain High-Cost Universal Service Rules*, WC Docket No. 10-90, Order, 28 FCC Rcd 391 (WCB 2013); *Allband Communications Cooperative Petition for Waiver of Certain High-Cost Universal Service Rules*, WC Docket No. 10-90, Order, DA 18-177 (WCB Feb 22, 2018).

[283] *See Adak Eagle Enterprises, LLC and Windy City Cellular, LLC Petitions for Waiver of Certain High-Cost Universal Service Rules*, WC Docket No. 10-90 and WT Docket No. 10-208, Order on Reconsideration and Memorandum Opinion and Order, 30 FCC Rcd 5080 (2015) (*Adak Reconsideration Order*); *Connect America Fund, Allband Communications Cooperative Petition for Waiver of Certain High-Cost Universal Service Rules*, WC Docket No. 10-90, Order and Order on Review, 31 FCC Rcd 8454 (2016) (*Allband July 2016 Order*) (*but see Connect America Fund, Allband Communications Cooperative Petition for Waiver of Certain High-Cost Universal Service Rules*, WC Docket No. 10-90, Order, 33 FCC Rcd 1955 (WCB 2018) (*Allband February 2018 Order*)); *Sandwich Isles Order*, 31 FCC Rcd at12999.

[284] FCC calculation is based on USAC data.

[285] *See Adak Reconsideration Order*, 30 FCC Rcd at 5080.

[286] *See Allband July 2016 Order*, 31 FCC Rcd at 8454. Based upon corrective action, the Commission subsequently found that the carrier's adjusted cost accounting satisfied the Commission rules. S*ee Allband February 2018 Order*.

[287] *Sandwich Isles Order*, 31 FCC Rcd at 12999.

[288] NTCA Reply Comments at 34.

[289] South Park Comments at 5; *see also* ADTRAN Comments at 10 (arguing that lack of petitions "could reflect the costs and uncertainties surrounding any such request").

the Commission has an interest in eliminating waste, fraud, and abuse that will be served by the reduction in the monthly per-line cap. Moreover, any carrier entitled to support above the $250 cap can avoid support reductions by justifying its support needs through cost studies and accounting done consistent with our rules.

132. TCA provides no data or even anecdotal evidence in support of its assertion that carriers reduced or slowed deployment to avoid triggering a cap or limitation on support.[290] Further, we note that we have invited carriers to use the waiver process specifically as an avenue to justify their necessary spending in the type of cases that TCA identifies. If investment is necessary to deploy service, then the expenses will be justifiable in the waiver process.

133. South Park's alternate proposal to modify the operation of the monthly per-line cap or to exempt carriers subject to monthly per-line cap from the budget constraint mechanism would tend to undermine the effect of the rule by exempting some support without regard for whether the underlying expenses have been justified. Exempting carriers subject to the monthly per-line cap from the budget constraint's operation would undermine the budget constraint's purpose of limiting the size of the fund.

134. We decline to adopt, as Allband requests in its comments, a streamlined waiver process to review any requests that Allband might file of the monthly per-line cap, because it previously was granted relief.[291] Allband maintains that a streamlined process would allow it to "redirect financial resources from such filings to provide expanded lines and services" to the areas it serves.[292] Although the Commission is mindful of minimizing regulatory burdens in order to maximize the benefit of limited universal service support, we must balance that goal with our responsibility as stewards of the Fund. We do not believe it is appropriate at this time to take further action to reduce Allband's evidentiary burdens in light of its prior misallocation of costs and need for corrective action.

135. Finally, we note that our decision to reduce the monthly cap in two steps addresses the possibility that a sudden influx of many petitions for waiver will be administratively difficult to manage. By our estimates, only an additional 10 carriers would currently be impacted by the intermediate $225 monthly per-line cap. The two years prior to the further reduction of the cap to $200 should be sufficient to address any petitions for waiver arising from the $225 monthly per-line cap. Both reductions to $225 and $200 will be implemented on July 1, to ease administrative considerations associated with the calculation of the budget constraint mechanism.[293]

6. Revising the 100% Overlap Process

136. In this section, we find that the 100% overlap process the Commission has used to ensure that federal funding is not being used to compete with unsubsidized competitors has not lived up to its promise. Accordingly, we end that process and replace it with competitive auctions for legacy service areas that are nearly entirely overlapped by unsubsidized competitors. In a Further Notice of Proposed Rulemaking, we seek further comment on several auction-related issues.

137. *Background*. In the *USF/ICC Transformation Order*, the Commission decided to eliminate high-cost universal service support in incumbent LEC study areas where an unsubsidized competitor or a combination of unsubsidized competitors offers voice and broadband services that meet

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[290] TCA Comments at 8.

[291] Comments of Allband Communications Cooperative, WC Docket No. 10-90 et al., at 5-6 (May 25, 2018) (Allband Comments).

[292] Allband Comments at 6.

[293] In the *2016 Rate-of-Return Reform Order*, the Commission set forth the process and timing for the operation of the budget control mechanism and CAF BLS. *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3157, para. 187. The monthly per-line capped support amounts are an input into the budget control mechanism, and the applied budget control takes effect on July 1 of each year. *Id.*

the Commission's obligations throughout the study area.[294] High-cost universal service support for the study areas found to be 100% overlapped is frozen at the amount disbursed in the prior calendar year and phased down over three years.[295] The Bureau conducted this biennial review in 2015 and 2017. Although numerous study areas were identified as 100% overlapped by voice and 10/1 Mbps broadband based on FCC Form 477 information, only one study area was determined to be 100% overlapped by unsubsidized competitors based on the verification process used by the Bureau.[296] To date there has been little participation in the current process by unsubsidized competitors, likely due to the absence of incentives to participate, and when they do participate, it is inefficient to adjudicate competing claims by incumbents and competitors.

138. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission sought comment on the effectiveness of the 100% overlap process.[297] The Commission noted that to date there have been few submissions by unsubsidized competitors, likely due to the absence of incentives to participate. In addition, the Commission noted that the current process requires Commission staff to weigh the certifications and evidence to determine whether all locations are in fact served by voice and broadband, which can be difficult and resource-intensive. The Commission sought comment on whether the benefit of eliminating support from study areas 100% served by competitors outweighed the cost of conducting the process.

139. In lieu of the current process to determine whether a study area is 100% overlapped, the Commission sought comment on using an auction mechanism to award support to either the incumbent LEC or the competitor(s) in areas where there is significant competitive overlap. The Commission said that competitive bidding can result in more efficient levels of support by providing incentives to bid less than current levels of support in the area.

140. Commenters have differing views. Incumbent carriers do not support use of an auction mechanism to award support where there is competitive overlap[298] and prefer current overlap procedures.[299] They argue that the minimal participation on the 100% overlap process is not due to a lack of incentives but rather the reality that competitors do not serve the entire study area.[300] The Illinois RLECs contend that there is no reason to believe that an auction process would be less burdensome than the process the Commission adopted in 2016,[301] and "changing the process to determine competitive overlap will not change the reality that competitive overlap is virtually nonexistent."[302]

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[294] *USF/ICC Transformation Order*, 26 FCC Rcd at 17766-68, paras. 280-84. The Commission subsequently codified the 100% overlap rule in April 2014 in 47 CFR § 54.319 (a)-(c). *See April 2014 Connect America Order*, 29 FCC Rcd at 7163.

[295] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17766-68, paras. 280-84.

[296] *See Connect America Fund*, WC Docket No. 10-90, Order, 30 FCC Rcd 14145 (WCB 2015); *Wireline Competition Bureau Concludes the 100 Percent Overlap Challenge Process*, WC Docket No. 10-90, Public Notice, 32 FCC Rcd 9294 (2017).

[297] *See 2018 Rate-of-Return Reform Order and NPRM* at 58, paras. 160-163.

[298] ITTA Comments at 33; WTA Comments at 35-40; Comments of GVNW Consulting, Inc. on Behalf of Illinois Rural Local Exchange Carriers, WC Docket No. 10-90 et al., at 2 (May 25, 2018) (Illinois RLECs Comments).

[299] Blooston Rural Carriers Comments at 16; NTCA Comments at 57; NTCA Reply Comments at 34; TCA Comments at 9; Granite State Reply Comments at 5; GVNW Reply Comments at 24-25; Reply Comments of the USTelecom Association, WC Docket No. 10-90 et al., at 3 (June 25, 2018); Broadband Alliance Reply Comments at 19.

[300] NTCA Comments at 57; Broadband Alliance Reply Comments at 19; Reply Comments of GVNW Consulting, Inc. on behalf of Illinois Rural Local Exchange Carriers, WC Docket No. 10-90 et al., at 7-8 (June 25, 2018) (Illinois RLECs Reply Comments).

[301] Illinois RLECs Comments at 12; *see also* Granite State Reply Comments at 7.

[302] Illinois RLECs Comments at 8.

141. WTA and Blooston argue that an auction would put services in rural areas at risk, while the Illinois RLECs and Granite State note the incumbent LECs have carrier-of-last-resort obligations that would be threatened by removing support.[303] Illinois RLECs also argue that use of an auction makes no sense if the Commission is looking to eliminate support in areas already served by unsubsidized competitors. If the unsubsidized competitor wins at auction and the incumbent LEC remains in business, then the incumbent LEC becomes the unsubsidized competitor in the auctioned area.[304]

142. In contrast, WISPA and NCTA support use of an auction, requesting that the Commission introduce a reverse auction in study areas in which non-incumbents serve 50% of the study area or 50% of the locations.[305] WISPA argues that an auction would provide "a market-based approach to better steer finite monetary support."[306] In support of the 50% limit, WISPA argues that this approach "recognizes that when a competing provider is serving a critical mass of nearby areas, the incumbent carrier is no longer uniquely capable of rolling out new service to locations within the study area that remain unserved."[307] NCTA argues that an auction allows "participants to seek only the amount of funding necessary to serve high-cost and unserved areas, rather than allowing a rate-of-return LEC to receive excessive support for the entire area."[308]

143. *Discussion*. We find that an auction mechanism in certain legacy study areas would be an efficient, market-based way to distribute any high-cost support that may be necessary. In a study area that is 100%, or almost entirely, overlapped by unsubsidized competitors, there may still be some locations within census blocks that do not have access to broadband, i.e., although a block is partially served by an unsubsidized provider not all of the locations in that block are served. As the Commission has noted previously, competitive bidding can result in more efficient levels of support by providing incentives to bid less than current levels of support in the area.[309] We agree with WISPA in general that an auction in competitive areas "recognizes that when a competing provider is serving a critical mass of nearby areas, the incumbent carrier is no longer uniquely capable of rolling out new service to locations within the study area that remain unserved."[310] While an auction would also require administrative resources, an auction would help move the CAF towards market-based solutions rather than sorting through documentary evidence in hopes of determining whether locations are in fact served by competitors. We also have now seen the success of the CAF II auction, which "unleashed robust price competition" so that "more locations will be served at less cost."[311] The total locations awarded support had an initial reserve price (maximum amount) of $5 billion over ten years, but the amount awarded to cover these locations is only $1.488 billion.[312]

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[303] WTA Comments at 40; Blooston Rural Carriers at 16; Illinois RLECs Reply Comments at 3; Granite State Reply Comments at 4.

[304] Illinois RLECs Reply Comments at 10. *See also* Illinois RLECs Comments 9; NTCA Comments at 59.

[305] WISPA Comments at 6-7; NCTA Comments at 4. GeoLinks agrees that "that the Commission should introduce an auction approach in any study area where there is significant, but less than 100%, overlap." *See* Reply Comments of California Internet, L.P. dba GeoLinks, WC Docket No. 10-90 et al., at 3 (June 25, 2018).

[306] WISPA Comments at 6.

[307] Reply Comments of the Wireless Internet Service Providers Association, WC Docket No. 10-90 et al., at 5-6 (June 25, 2018) (WISPA Reply Comments).

[308] NCTA Comments 4.

[309] *See 2018 Rate-of-Return Reform Order and NPRM* at 58, para. 162. *See also* NCTA Comments at 4.

[310] WISPA Reply Comments at 5-6.

[311] Press Release, FCC, Connect America Fund Auction to Expand Broadband to Over 700,000 Rural Homes and Businesses (Aug. 28, 2018), https://docs.fcc.gov/public/attachments/DOC-353840A1.pdf.

[312] *Id*.

144. We determine that support in legacy study areas identified by FCC Form 477 data as entirely or almost entirely overlapped with voice and 25/3 Mbps broadband by an unsubsidized competitor or group of competitors will be awarded through a competitive bidding process.[313] When there are competitors, competitive bidding can be an efficient, market-based way to distribute high-cost support. By auctioning off support in study areas that are entirely or almost entirely overlapped at 25/3 Mbps, we expect to see significant savings relative to current legacy claims in those areas. Competitive bidding will result in a market-based allocation of limited funding in areas where support is overwhelmingly not needed to achieve our universal service goals as evidenced by the amount of unsubsidized competition. And we will dedicate those savings to increasing the overall budget for legacy carriers—shifting support to areas where it is needed most. Currently, there are eight legacy study areas with 100% overlap and seven additional legacy study areas with at least 95% overlap with approximately $12 million in unconstrained projected claims for 2018 respectively. We expect an auction to shift a large portion of that support to other study areas not entirely or almost entirely overlapped.

145. Consequently, we eliminate the current 100% overlap rule and process.[314] By replacing the existing process, we eliminate the resources used to sort through documentary evidence; and if that evidence shows even one location in the study area is not served by unsubsidized competition, the entire process results in zero savings. Although we recognize that an auction could theoretically result in more funding in an area entirely or almost entirely overlapped by unsubsidized competitors than the existing process, the existing process has yielded almost no tangible results and instead allowed incumbent carriers almost entirely overlapped by unsubsidized competitors to continue to receive support for locations also being served by unsubsidized providers. We believe that it would be better to allow such incumbent carriers to compete against their unsubsidized competitors for federal funds and to use a competitive bidding process to reduce funding to a more competitive level rather than to continue with the status quo.[315]

146. We decline to formally codify a rule for this process until we resolve certain issues we seek comment on in the section below, including ensuring we properly address issues raised by the incumbent LECs in their comments.[316] In the meantime, we will reserve sections 54.319(a)-(c) of the Commission's rules.[317] We decline to adopt the proposals of WISPA and NCTA to auction study areas that are at least 50% overlapped but seek further comment in the attached Further Notice of Proposed Rulemaking on how to determine which study areas are almost entirely overlapped.

7. Line Count Filings

147. We adopt two changes to our rules governing the filing of line count data by rate-of-return carriers on FCC Form 507.

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[313] An unsubsidized competitor is "a facilities-based provider of residential fixed voice and broadband service that does not receive high-cost support." *See* 47 CFR § 54.5. We will also continue to assume that providers meeting the speed criteria also meet the non-speed criteria (latency and usage). *See Wireline Competition Bureau Publishes Preliminary Determination of Rate-Of-Return Study Areas 100 Percent Overlapped by Unsubsidized Competitors*, WC Docket No. 10-90, 30 FCC Rcd 8179, 8184, para. 13 (WCB 2015). Prior to any auction, we would require an unsubsidized competitor in the study area to certify that its rates are reasonably comparable to rates for comparable offerings in urban areas.

[314] *See* 47 CFR § 54.319(a)-(c).

[315] Our elimination of the previously adopted rules for 100% overlap and increasing the screen to 25/3 Mbps has no effect on the results from the previous processes.

[316] WTA Comments at 40; Blooston Rural Carriers at 16; Illinois RLECs Reply Comments at 3, 9-10; NTCA Comments at 59.

[317] 47 CFR § 54.319(a)-(c).

148. *Background*. Currently, carriers that receive CAF BLS must use FCC Form 507 to file, on July 31 of each year, their voice and broadband-only line counts as of the prior December 31.[318] These data are used to apply the monthly $250 per-line cap and to administer the budget control mechanism. In addition, these data are extremely useful in monitoring and analyzing the benefits and efficiency of high-cost universal service. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission proposed revising its rules to collect FCC Form 507 on March 31 of each year, while retaining the "as of the prior December 31" requirement. NTCA, the only commenter to address this proposal, supported the change. The Commission also proposed to extend the requirement to file FCC Form 507 to all rate-of-return carriers (i.e., including those that have elected A-CAM and Alaska Plan support). No commenter addressed that specific proposal.

149. *Discussion*. We adopt our proposal to change the date for mandatory line count filings for CAF BLS to March 31 of each year but to continue to require line counts as of December 31 (i.e., reduce the lag until filing to 3 months). This change will ensure that recent line counts are used to apply the monthly cap and administer the budget control mechanism. Currently, when USAC performs the necessary calculations in April of each year, it typically must rely on the carrier's FCC Form 507 from the prior July, which in turn reports line counts as of the prior December 31. In other words, these calculations are based on line counts that are more than 15 months old. By changing the collection date to March 31, USAC will be able to use line count data that is much more recent—only three months old—in determining the monthly cap and administering the budget control mechanism.

150. We decline to make any changes to the HCLS line count filing at this time. When the Commission sought comment regarding whether to modify the FCC Form 507 line filing schedule, it noted that HCLS line counts are currently collected on the same schedule as FCC Form 507, and asked whether conforming changes to the HCLS line count filing would be appropriate. We find that such changes would not be appropriate because HCLS line counts are collected at the same time as HCLS cost data, and we believe that carriers will find it less burdensome to make the HCLS line count and cost data filing on the same schedule.

151. We also adopt a requirement for rate-of-return carriers that do not receive CAF BLS (i.e., carriers that have elected A-CAM or Alaska Plan support) to file line counts annually on FCC Form 507. Line count data is essential for monitoring and analyzing high-cost universal service programs. Carriers that elected A-CAM were required to file line count data on FCC Form 507 prior to the implementation of A-CAM because they received ICLS, which they no longer do. Likewise, carriers authorized for Alaska Plan were also required to file line count data on FCC Form 507 prior to the implementation of the Alaska Plan. Requiring the A-CAM and Alaska Plan carriers to continue to provide line count information will allow the Commission to maintain a frequently used data set for assessing whether the Commission's rules are achieving its universal service goals, while being a minimal burden. To lessen what we consider to be an already minimal the burden associated with this data collection, we require carriers to file this data on July 1 of each year to coincide with other filing dates.[319]

8. Updating the Uniform System of Accounts to Incorporate New Lease Accounting Standards

152. We incorporate into our Part 32 accounting rules, the updated lease accounting standards adopted in 2016 by the Financial Accounting Standards Board (FASB and the FASB lease accounting standards).[320] In so doing, we eliminate the need for incumbent LECs to account for leases under

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[318] 47 CFR § 54.903(a)(1). Carriers may file, also using FCC Form 507, optional updates on September 30, December 30, and March 30, reporting line counts as of six months prior to the filing. 47 CFR § 54.903(a)(2).

[319] Unlike the case of legacy rate-of-return carriers, there is no pressing administrative need to have this data by March 31.

[320] Our accounting rules can be found at 47 CFR Part 32. The updated FASB lease accounting standards can be found in the FASB Accounting Standards Update No. 2016-02, February 2016, Leases (Topic 842), Financial

different standards in order to comply with our rules and with the FASB lease accounting standards. To expedite the effectiveness of these changes and ease administrative burdens, we also waive our Part 32 rules to the extent necessary, to permit an incumbent LEC to use the FASB standards immediately.

153. *Background*. The FASB lease accounting standards cover the accounting for both capital and operating leases by companies that use generally accepted accounting principles (GAAP) to prepare their financial statements.[321] Under the FASB lease accounting standards, capital leases are now referred to as financing leases and the procedures for expensing amounts recorded for financing leases are the same procedures previously used for capital leases.[322] The core principle of the FASB lease accounting standards is that a lessee should recognize the assets and liabilities that arise from leases.[323] When accounting for an operating lease with a term that is longer than one year, a lessee is required to: (i) recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in the statement of financial position; (ii) recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term on a generally straight-line basis; and (iii) classify all cash payments within operating activities in the statement of cash flows.[324]

154. As a result, in some instances, leases are treated differently under the FASB lease accounting standards than under our current Part 32 rules. For example, the current Part 32 treatment of operating leases classifies operating leases as expenses associated with the executory agreements that are recorded as expenses at the time lease payments are made.[325] By contrast, when using the FASB lease accounting standards, a carrier recognizes a lease expense from an operating lease on a straight-line basis over the lease term. Thus, for an operating lease with an escalation clause, the FASB lease accounting standards require the recorded operating expense to be higher in the first year than the amount paid in cash.[326]

155. *Discussion*. We agree with TDS telecom that "maintaining two sets of lease accounts, by its nature," imposes burdens on carriers subject to our Part 32 rules.[327] We also agree that there is no benefit to requiring such carriers to maintain two sets of lease accounts that reflect different accounting procedures for regulated purposes and for financial reporting.[328] Importantly, the amendments we make to our Part 32 rules will have no impact on a carrier's rates or on the amount of universal service support it receives. We therefore amend our Part 32 rules to conform them to the FASB lease accounting standards, so that carriers can maintain a single set of lease accounts that is consistent with both our rules and the FASB standards.

156. We adopt the definition of a lease as contained in the FASB lease accounting standards, which define a lease as a contract, or part of a contract, that conveys the right to control the use of identified property, plant and equipment (an identified asset) for a period of time in exchange for consideration.[329] As a result of this definitional change, in order to comply with our Part 32 rules, a

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Accounting Standards Board (FASB), *available at*
fhttp://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1176167901010&acceptedDisclaimer=true. (ASC 842).

[321] *Id* at 1.

[322] *Id* at 2.

[323] *Id.*

[324] *Id*. at 3.

[325] *See id.*

[326] *Id.*

[327] *See* TDS Telecom Comments at 5. *See also* NTCA comments at 72.

[328] *See* TDS Telecom Comments at 5.

[329] *See* ASC 842 at 5.

carrier will need to determine whether a contract is or contains a lease because lessees are required to recognize lease assets and lease liabilities for all leases (financing or operating) other than short-term (less than 12 months) leases. Furthermore, the FASB lease accounting standards require an entity to separate the lease components from the non-lease components (for example, maintenance services or other activities that transfer a good or service to the customer) in a contract.[330] With respect to operating and finance leases, our rules allow carriers to use subsidiary accounts as they deem necessary to most efficiently process the transactions.

157. *Lessee Accounting for Operating Leases*. To be consistent with the FASB lease accounting standard's approach, we amend our rules to require that when a lessee enters into an operating lease longer than one year, it records the net present value of the lease payments. As the lease term runs, the lessee must recognize the lease expense as a straight-line amortization over the life of the lease.

158. *Lessor Accounting for Operating Leases*. The FASB lease accounting standards do not require substantial modifications to our current rules governing a lessor's accounting for operating leases. A lessor will continue to report the capital asset that it is leasing to another entity and to apply the required standards to the asset, such as recording depreciation expense and disclosing changes in the amount of the asset during the fiscal year. We do, however, amend our rules to make clear that a lessor must recognize a long-term lease receivable in Account 1410 "Other Non-current Assets," measuring the amount in generally the same manner as a lessee liability. Pursuant to our amended rules, a lessor must also recognize a deferred inflow of resources equal to the lease receivable plus any up-front payments the lessor received from the lessee that relate to future periods in Account 4300 "Other long-term liabilities and deferred credits."

159. We also amend our rules to require that when a carrier, that is a lessor, enters into an operating lease longer than one year, it records the present value of the lease receivables in each account. The lessor must determine the present value of the lease and recognize a deferred inflow of resources equal to the lease receivable plus any up-front payments the lessor received from the lessee that relate to future periods.[331]

160. As the lease term runs, the lessor in the normal course will recognize lease revenue and a credit to the deferred lease account, which will be done as a straight-line amortization over the life of the lease. The actual amount recorded under our amended rules could vary from what would have been recorded under the previous Part 32 rules. Over the length of the lease, however, the lease revenues recognized under either approach will be the same.

161. *Finance Leases.* Other than referring to capital leases as finance leases, no additional changes are necessary to the sections of our Part 32 rules governing finance leases. As with operating leases, carriers may employ subsidiary accounts to facilitate FASB reporting requirements.

162. *Ratemaking and universal service considerations*. Our revisions to Part 32 do not raise any ratemaking or universal service concerns. While there may be slight differences in the timing of certain entries, the overall effect over the length of the lease will not create any material disruptions to the ratemaking and universal service processes.

163. *Effective date*. Section 220(g) of the Act provides that the Commission shall give notice of alterations in the manner or form of the keeping of accounts at least six months before the alterations are to take effect.[332] Thus, the earliest the rules we adopt today could become effective would be mid-2019. Because most accounting systems are based on a calendar year, we make the revised rules effective on January 1, 2020. That is also the first month in which the FASB lease accounting standards are

[330] *See* ASC 842 at 5. Nothing we do in this Report and Order affects the accounting for aspects of a contract that are not considered a lease.

[331] *See* ASC 842 at 20.

[332] 47 U.S.C. 220(g).

applicable to all entities that use GAAP accounting. For those carriers that must comply with the FASB lease accounting standards before January 1, 2020 and for those that elect an earlier date to conform their accounts to the FASB lease accounting standards, we grant a waiver of Part 32 as described below to cover the time period between now and January 1, 2020.

164. *Waiver.* Generally, the Commission's rules may be waived for good cause shown.[333] The Commission may exercise its discretion to waive a rule where the specific facts make strict compliance inconsistent with the public interest.[334] Waiver of the Commission's rules is therefore appropriate only if special circumstances warrant a deviation from the general rule and such deviation will serve the public interest.[335]

165. On our own motion, we grant incumbent LECs subject to Part 32 a waiver allowing them to employ the revised procedures adopted herein effective upon release of this Report and Order.[336] Absent such relief, the six-month notice required by Section 220(g) of the Act would require those incumbent LECs subject to the FASB lease accounting standards to have two sets of lease accounts until the revised rules become effective. We find good cause exists to grant this waiver to preclude the imposition of duplicative accounting requirements. To encourage efficient use of carrier resources, we extend this waiver to any carrier electing to follow the FASB lease accounting standards before January 1, 2020.

9. HCLS Cap or Rural Growth Factor

166. We decline to make any changes to the rural growth factor or the application of the HCLS cap.

167. *Background*. Under the Commission's HCLS rules, the HCLS cap is adjusted annually by a rural growth factor.[337] The rural growth factor is equal to the sum of the annual percentage changes in the gross domestic product-chain price index and the total number of working loops.[338] To apply the HCLS cap, the Commission has frozen the national average cost per loop (NACPL) at $647.87 and adjusts HCLS support accordingly.[339] A reduction, if necessary, is calculated by multiplying each carrier's calculated HCLS by the ratio of the indexed HCLS cap to the aggregate amount of HCLS initially calculated for all carriers using the frozen NACPL.[340] Because the total number of working loops has been declining in recent years,[341] the rural growth factor, which factors in changes in total working loops regardless of an increase or decrease, has led to a continually declining HCLS cap.[342]

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[333] 47 CFR § 1.3.

[334] *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990) (*Northeast Cellular*).

[335] The Commission may, on an individual basis, take into account considerations of hardship, equity, or more effective implementation of overall policy. *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166.

[336] 47 CFR § 1.3.

[337] *See* 47 CFR § 54.1310. The Commission's HCLS rules were formerly codified in Part 36, subpart F.

[338] *Id.* § 54.1303.

[339] *Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, 29 FCC Rcd 15644, 15682, para. 106 (2014) (*December 2014 Connect America Order*); *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3154, para. 181.

[340] *December 2014 Connect America Order*, 29 FCC Rcd at 15682, para. 106.

[341] *See* Appendix H of the 2017 October Filing of 2016 Study results at https://www.fcc.gov/general/necas-overview-universal-service-fund (showing USF loops have declined by 15% from year-end 2012 to year-end 2016 for legacy RoR carriers). *See also* Concerned Rural LECs Comments at 2; SCC Comments at 6.

[342] Concerned Rural LECs Comments at 2.

168. Several commenters request changes to the HCLS cap/rural growth factor. Commenters argue that the continually declining HCLS cap has resulted in an unpredictable and insufficient HCLS budget, and it hinders carriers' ability to plan.[343] Commenters also argue that even as a customer terminates HCLS supported service, support is still needed for that loop, because the costs for provisioning the loop have been incurred and still require recovery. Additionally, commenters note that, as carriers of last resort, rate-of-return incumbent LECs are required to maintain the loops should service be requested again.[344] Commenters further argue that the rural growth factor, adopted at a time when total loops were increasing, was really intended to account for increases in loops. With working loops continuing to decrease, commenters allege that the rationale for the rural growth factor no longer makes sense.[345]

169. For these reasons, commenters request that we eliminate the rural growth factor and freeze the HCLS cap.[346] In the alternative, commenters recommend that the Commission remove the working loop portion of the rural growth factor (or remove the effect of line loss) and adjust the HCLS cap based on inflation only;[347] or apply the rural growth factor to the ratio of data lines to voice lines.[348] In addition, FWA requests that in applying the current HCLS cap, we freeze the pro-rata factor to prevent significant increases as voice declines in favor of standalone broadband.[349]

170. *Discussion*. We decline to make any changes to the rural growth factor or the application of the HCLS cap. Commenters fail to address that HCLS support should be declining as customers switch to broadband-only services, which are supported through CAF BLS. The rural growth factor, which accounts for line loss, results in a declining HCLS cap and a decline in the overall amount of HCLS. When there are fewer lines to be supported, the amount of support should decrease. We also note that because 100% of the cost above the revenue imputation is available under CAF BLS, relative to HCLS, more support is available to the carrier when that loop becomes a standalone broadband loop.

171. Although the Commission seeks to preserve and advance universal availability of voice service, it also strives to ensure universal availability of modern networks capable of providing voice and broadband service to homes, businesses, and community anchor institutions.[350] Increasing HCLS support provides a disincentive for legacy carriers to deploy broadband capable networks.[351] Freezing the HCLS cap or increasing it by removing line loss from the rural growth factor would provide carriers with an incentive to maintain voice-only loops, and discourage the deployment of broadband.

172. While in the past the Commission spoke of limiting increases to HCLS because at that time the number of lines was typically increasing,[352] the Commission noted that "using a rural growth

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[343] SCC Comments at 6, 8.

[344] *See* Concerned Rural LECs Comments at 3; WTA Comments at 10; SCC Comments at 7; GVNW Reply Comments at 19.

[345] Concerned Rural LECs Comments at 2; Blooston Rural Carriers Comments at 9; SCC Comments at 6.

[346] NTCA Comments at 69; WTA Comments at 10; ERTA Reply Comments at 4 (stop applying the rural growth factor or at the least stop applying while the Commission considers a budget).

[347] NTCA Comments at 69; Concerned Rural LECs Comments at 4; SCC Comments at 8; NTTA Comments at 3; Reply Comments of Gila River Telecommunications, Inc., WC Docket No. 10-90 et al., at 2-3 (June 25, 2018); GVNW Reply Comments at 19.

[348] Blooston Rural Carriers Comments at 9.

[349] FWA Comments at 19.

[350] *USF/ICC Transformation Order*, 26 FCC Rcd at 17672, para. 17.

[351] *Id.* at 17680-81, paras. 50-51.

[352] *Federal-State Joint Board on Universal Service, Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers*, Fourteenth

factor will more accurately reflect changes in the number of rural lines over time."[353] Even though the number of voice lines is now typically decreasing, the mechanism adopted by the Commission is still effectively aligning HCLS support appropriately with the number of lines. For these reasons, we do not adopt any changes to the rural growth factor or the application of the HCLS cap.

10. Maintaining the Opex Limitation

173. At this time, we find that no changes to the rate-of-return operating expense (opex) limitation are needed.

174. *Background*. In the *2016 Rate-of-Return Reform Order*, the Commission adopted a regression methodology to set a cap on the amount of opex that a carrier may report for universal service purposes, finding that "a mechanism to limit operating costs eligible for support under rate-of-return mechanisms, both HCLS and CAF BLS, will encourage efficient spending by rate-of-return carriers and will increase the amount of universal service support available for investment in broadband-capable facilities."[354]

175. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission sought comment on whether the current limitation on opex is successfully curbing unnecessary expenditures or is instead creating unnecessary burdens.[355] Specifically, the Commission asked whether the company-specific limitations reflect reasonable upper limits on the amount of opex that a carrier need incur. The Commission also sought comment on whether there are modifications that would improve operation of the opex limitation or if it should be eliminated.[356]

176. Commenters generally do not express any significant issues with the opex limitation.[357] However, the Concerned Rural LECs request one change. They "believe that business locations should also be included in the calculation of eligible operating expenses" which currently only counts housing units as locations.[358] While NTCA initially stated that we should "not alter the overall operating expense limits" having recently addressed two of the "most significant concerns," clarifying how the limit applies on Tribal lands and adding an inflationary factor,[359] it supports the Concerned Rural LECs request.[360] NTCA asks the Commission to consider a "creative means" to address the lack of data on the number of business locations through "some kind of factor" that "pretends as if business locations do not exist 'in the denominator' even as the costs of serving them may be included 'in the numerator.'"[361]

177. *Discussion*. We decline to make any changes to the opex limitation at this time. The opex limitation has been in effect for only a limited period of time and was recently adjusted to account for inflation.[362] We find it prudent to continue to monitor the effects of this modified limitation before

Report and Order, Twenty-Second Order on Reconsideration, and Further Notice of Proposed Rulemaking in CC Docket No. 96-45, and Report and Order in CC Docket No. 00-256, 16 FCC Rcd 11244, 11266, para. 49 & n.131 (*Rural Task Force Order*)

[353] *Id*. at 11266, para. 49.

[354] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3125-26, paras. 98-104.

[355] *2018 Rate-of-Return Reform Order and NPRM* at 60, paras. 167-68.

[356] *Id*.

[357] *See* FWA Comments at 21-22; NTCA Comments at 70.

[358] Concerned Rural LECs Comments at 25-26.

[359] NTCA Comments at 70.

[360] NTCA Reply Comments at 43.

[361] *Id*.

[362] *2018 Rate-of-Return Reform Order and NPRM* at 36-37, paras. 83-87.

adopting any further changes.[363] We also decline to adopt any changes to account for business locations as the Concerned Rural LECs and NTCA recommend.[364] As NTCA notes, we do not have "public availability of business location data."[365] Although future consideration of this issue may be warranted, NTCA's suggestion that we apply "some kind of factor" does not provide a sufficient basis or means for us to move forward with any modifications.[366]

11. Collecting Support to Meet Demand

178. We direct USAC to collect contributions based on projected demand in order to minimize the universal service burden on consumers and businesses, while ensuring sufficient support to implement the high-cost program.

179. *Background*. In the *USF/ICC Transformation Order*, the Commission established an annual funding target for the high-cost program of no more than $4.5 billion.[367] The Commission directed USAC to forecast total high-cost demand as no less than $1.125 billion per quarter for years 2012-2017, even if actual forecasted demand was less than this amount, in order to avoid dramatic shifts in the contribution factor while the CAF was implemented.[368] In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission directed USAC to continue forecasting a quarterly amount of high-cost demand at no less than one quarter of $4.5 billion until further Commission action – including action on the issues resolved by this Report and Order.[369]

180. The Commission then sought comment on whether it should extend the direction to USAC to forecast total high-cost demand at no less than one quarter of the annual high-cost budget, regardless of actual quarterly demand.[370] The Commission asked whether there were reasons to expect demand to shift dramatically and whether uniform collections with a reserve fund are a prudent budgetary practice or an unnecessary change to the traditional framework.[371] NTCA, USTelecom, and TCA support continuing uniform collections, in order to address possible fluctuations in the contribution factor[372] and maximize Commission flexibility to resolve any unexpected budgetary shortfalls.[373] SCC recommends "full accounting of the high-cost account" with uniform collections continuing and any excess amount going to HCLS and CAF BLS.[374] SCC also recommends that we "allocate any unencumbered excess" from the other universal service programs to HCLS and CAF BLS.[375]

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[363] *See id*. at 37, para. 85 (making the inflation adjustment applicable for five years and anticipating revisiting it to assess its effectiveness).

[364] *See* Concerned Rural LECs Comments at 25-26, *and* NTCA Reply Comments at 42-43.

[365] NTCA Reply Comments at 42.

[366] *Id*. at 42-43.

[367] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17711, para. 125. The Commission further stated "[t]his budgetary target will remain in place until changed by a vote of the Commission." *Id*.

[368] *Id.* at 17842-43, 17847, paras. 546, 559-62. ("To the extent that USAC forecasts demand will actually be higher than that amount, USAC should reflect that higher forecast in its quarterly demand filing."). Excess funds are maintained in the high-cost cash account. *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3111, para. 60 & n.130.

[369] *2018 Rate-of-Return Reform Order and NPRM* at 32-33, para. 70.

[370] *Id.* at 51, para. 138.

[371] *Id*.

[372] NTCA Comments at 54; NTCA Reply Comments at 28; TCA Comments at 6; USTelecom Comments at 22-23.

[373] TCA Comments at 6.

[374] SCC Comments at 9.

[375] *Id*.

181. *Discussion*. We conclude that the Commission's traditional approach, which bases collections on actual projected demand, will best serve our goals of minimizing the universal service burden on consumers and businesses[376] while ensuring sufficient and predictable support to implement the high-cost program. While the uniform collection may have served a useful purpose when the CAF program was first getting underway, we have largely implemented the CAF program now that the Phase II auction has ended and associated support amounts have been determined. Moreover, now that we have concluded our budget review through this Report and Order, we expect a fairly predictable and stable budget for the high-cost program for the next several years. Finally, collecting only enough support to meet demand enhances transparency and promotes accountability in the high-cost program. We therefore direct USAC to discontinue uniform collections for the high-cost program and going forward to collect contributions based on projected demand.[377]

182. There is no need for us to do a "full accounting" of the high-cost support available as SCC recommends.[378] The Commission and USAC always have a full accounting of the amount of high-cost support needed and how much has been collected in excess of this total. There is currently no excess cash in USAC's high-cost account; USAC will need to collect additional funds to meet the requirements of the high-cost program, including the allocations adopted in this Report and Order.[379] We further decline to address SCC's recommendation to "allocate any unencumbered excess" from other universal service programs to HCLS and CAF BLS at this time.

IV. FURTHER NOTICE OF PROPOSED RULEMAKING

183. In this section, we seek comment on rules for implementing our determination that support in areas overlapped or almost entirely overlapped by unsubsidized competition should be awarded through an auction. In addition, we seek comment on whether we need to take steps to ensure that the budget for legacy carriers is sufficient and to address the different amounts of support provided for voice-only or voice/broadband lines as compared to broadband-only lines. We also seek comment on additional support for legacy carriers serving Tribal areas.

A. Auction for Entirely or Almost Entirely Overlapped Areas

184. In the Report and Order, we determine that the use of an auction is a more efficient way to award support in areas that are overlapped or almost entirely overlapped by unsubsidized competition. Here, we seek comment on how this decision should be implemented, including auction design. In general, we propose that the auction process would operate in substantially the same way as the CAF Phase II auction, which concluded on August 28, 2018,[380] but seek comment on whether changes to account for any differences unique to this overlap auction are necessary and appropriate. Further information regarding the CAF Phase II auction (Auction 903) is available on the FCC's website.[381]

185. *Affected study areas.* Initially, we seek comment on what percentage we should use to determine those study areas that are almost entirely overlapped according to FCC Form 477. Should

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[376] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17672, para. 17.

[377] *See* 47 CFR § 54.709.

[378] SCC Comments at 9.

[379] *See Wireline Competition Bureau Provides Guidance to the Universal Service Administrative Company Regarding the High-Cost Universal Service Mechanism Budget*, WC Docket No. 10-90, Public Notice, 32 FCC Rcd 9243 (WCB 2017) (projecting $129 million in excess support), *and 2018 Rate-of-Return Report and Order* at 35-36, paras. 78-81 (providing approximately $180 million for reconsideration of implementation of the budget control mechanism affecting claims from July 2017 to June 2018).

[380] Press Release, FCC, Aug. 28, 2018, Connect America Fund Auction to Expand Broadband to Over 700,000 Rural Homes and Businesses, (Aug. 28, 2018), https://docs.fcc.gov/public/attachments/DOC-353840A1.pdf.

[381] *See* FCC, Connect America Fund Phase II Auction (Auction 903), https://www.fcc.gov/auction/903 (last visited Dec. 12, 2108).

support in legacy study areas that are less than 100% overlapped by unsubsidized competition, e.g., 99% or 95%, also be awarded through competitive bidding?[382] Currently, there are eight legacy study areas with 100% overlap and seven legacy study areas with at least 95% overlap with approximately $12 million in unconstrained projected claims for all 15 study areas for 2018. Rather than solely rely on FCC Form 477 data, should we then also conduct a challenge process to verify the affected study areas? Is such a challenge process necessary given that the areas will be subject to auction?

186. *Eligible areas.* We propose to break each study area into a census geography, such as census block groups, with each unit as the minimum geographic bidding area. The Commission previously used census block groups but declined to auction units as small as census blocks or as large as counties or census tracts for the CAF Phase II auction.[383] Given that there are likely to be fewer total eligible areas in this auction, should we instead use census blocks as the minimum geographic bidding area? We expect to adopt the bidding unit in the pre-auction process.

187. We propose to establish the reserve price—the maximum amount of support available for each bidding unit prior to the auction—by proportionally allocating the incumbent's legacy support across each eligible study area using the costs for each census block as determined by the cost model in order to account for the relative costs of providing service among areas. Should we instead establish reserve prices based on A-CAM costs, or on some percentage of the incumbent's prior year's legacy claims? We note that the CAF Phase II auction began with an aggregate reserve price for all eligible areas based on the Commission's cost model, but cleared at 78.35% of the reserve price.[384] Thus, the CAF Phase II auction reduced the amount of support needed for these areas to substantially less than the reserve price. How can we create similar competition in auctions offering support to overlap areas?

188. *Public interest obligations*. We propose to accept bids in technology neutral service tiers with varying speed and usage allowances similar to those used in the CAF Phase II auction but eliminating speeds below 25/3 Mbps, and for each tier will differentiate between bids that would offer either lower or higher latency. The following charts summarize the performance tiers and latency (including the weights as adopted by the Commission for the CAF Phase II auction):

Performance Tier	Speed	Monthly Usage Allowance	Weight
Baseline	≥ 25/3 Mbps[385]	≥ 150 GB or U.S. median, whichever is higher	45
Above Baseline	≥ 100/20 Mbps	≥ 2 terabytes (TB)	15
Gigabit	≥ 1 Gbps/500 Mbps	≥ 2 TB	0

Latency	Requirement[386]	Weight

[382] *See* WISPA Comments at 6-7; NCTA Comments at 4.

[383] *CAF Phase II Auction Order*, 31 FCC Rcd at 5979, para. 89.

[384] FCC Public Reporting System, Connect America Fund Dashboard, https://auctiondata.fcc.gov/public/projects/auction903 (last visited Dec. 12, 2018).

[385] The speeds listed for each performance tier are the required minimum downstream/upstream speeds.

[386] For the latency requirement, at least 95% or more of all peak period measurements of roundtrip latency must be at or below 100 milliseconds (ms) (low latency) or 750 ms (high latency). *CAF Phase II Auction Order*, 31 FCC Rcd at 5960-61, paras. 30-31.

Low Latency	≤ 100 ms	0
High Latency	≤ 750 ms & MOS ≥ 4[387]	25

189. Are there any reasons to accept different performance tiers or different latency metrics? We note that 99.75% of locations awarded through the CAF Phase II auction were at speeds of 25/3 Mbps or higher.[388]

190. Winning bidders would be required to serve all locations within each census block group, with interim and final deployment milestones similar to those of recipients of CAF Phase II auction support. Should we make any changes to that framework?

191. *Eligibility to participate*. We seek comment on what entities should be eligible to participate. We propose that the auction not be limited only to the incumbent and the competitors that report coverage within the study area, but open to any eligible provider. We note that more auction participants are more likely to lead to market-based support levels. We also recognize the possibility that limiting eligibility could result in only one or two bidders per study area.

192. We propose to adopt a two-stage application filing process for participants in this auction, similar to that used in other Commission universal service auctions. Specifically, in the pre-auction "short-form" application, a potential bidder must establish its eligibility to participate, providing, among other things, basic ownership information and certifying to its qualifications to receive support. After the auction, we would conduct a more extensive review of the winning bidders' qualifications to receive support through "long-form" applications. Such an approach balances the need to collect essential information with administrative efficiency and will provide the Commission with assurance that interested entities are qualified to meet the relevant terms and conditions if awarded support.

193. In the CAF Phase II auction, the Commission required applicants to demonstrate that they had provided voice, broadband, and/or electric distribution or transmission services for at least two years.[389] The Commission also adopted an alternative pathway for entities that could not demonstrate service for two years by instead submitting 1) audited financial statements for that entity from the three most recent consecutive fiscal years, including balance sheets, net income, and cash flow, and 2) a letter of interest from a qualified bank with terms acceptable to the Commission that the bank would provide a letter of credit to the bidder.[390] Should we adopt the same or similar requirements for this auction?

194. *Auction design*. We also seek comment on the appropriate auction design for offering support in overlap areas. The Commission already has competitive bidding rules that allow for the subsequent determination of specific final auction procedures based on additional public input during the pre-auction process.[391] We propose to use the same auction design as we did in the CAF Phase II auction—a multi-round, descending clock auction in which bidders selecting different performance levels

[387] With respect to voice performance, bidders placing high latency bids must also commit to demonstrate a score of four or higher using the Mean Opinion Score (MOS). *Id.* at 5960-61, para. 30

[388] Press Release, FCC, Connect America Fund Auction to Expand Broadband to Over 700,000 Rural Homes and Businesses (Aug. 28, 2018), https://docs.fcc.gov/public/attachments/DOC-353840A1.pdf.

[389] *CAF Phase II Auction Order*, 31 FCC Rcd at 5982, para. 100.

[390] *Id.* at 5985, para. 106.

[391] 47 CFR pt. 1, subpt. AA. The rules provide for the ability to refine aspects of the auction process if the record developed during the pre-auction process reflects the need to do so. *See Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567, 6707-08, para. 323 (2014).

will compete head-to-head in the auction, with weights to take into account our preference for higher speeds over lower speeds, higher usage allowances over lower usage allowances, and low latency over high latency.[392] We propose to auction all affected study areas nationwide in the same auction. We seek comment on whether any auction design changes should be made to take into account any differences between the nature of competition in the CAF Phase II auction and an auction of support for overlap areas. If so, we ask that commenters identify and describe recommended changes with specificity. Consistent with prior practice, we propose to develop the specific details of the auction as part of the pre-auction process.

195. *Transition for incumbent provider*. We propose that any incumbent that does not apply to participate in the auction shall have its support reduced, regardless of whether other carriers apply or bid. We infer that by not applying to participate in the auction the incumbent is demonstrating that it does not need any of our limited universal service funds to continue providing service to its area.

196. We seek comment on what should happen to the legacy rate-of-return support mechanisms for an incumbent LEC when it, but no other carrier, bids in the incumbent's area. We also seek comment on whether, if the incumbent LEC is the sole applicant to bid in its service area, and no other carriers apply to bid, the incumbent should continue to receive support pursuant to the legacy rate-of-return support mechanisms? Should we infer that by not applying to participate in the auction the competitors are demonstrating that they are not capable of providing service to the entire study area?

197. If the incumbent LEC does not win at auction, what, if any, transitional support should be provided to the incumbent, and how should the Commission best ensure customers who are currently served by the incumbent do not lose access to voice service or existing broadband service prior to the deployment of service to those locations by the winning bidder?

198. *Oversight and accountability.* We propose that the same oversight and non-compliance framework as used in the CAF Phase II auction would apply to auctions offering support to overlap areas.[393] Are there any modifications that should be made and, if so, why?

199. *Frequency of auctions.* The Commission's previous 100% overlap process was conducted every other year. Should we conduct these auctions on a similar schedule, based on the most recent FCC Form 477 data?

B. Conversion of Lines to Broadband-Only

200. As described in the Report and Order, we are concerned that as carriers move from offering voice and voice/broadband lines to broadband-only lines, the amount of support required from the Fund will increase. To address this concern, we have adopted a minimum of a 7% budgetary increase in 2019. We anticipate that this 7% increase should exceed any increases to the budget due to conversions of lines from voice or voice/broadband to broadband-only. The Commission previously recognized the importance of giving consumers the flexibility to purchase broadband-only lines, which may provide an opportunity to move from "plain old telephone service" (POTS) to new IP-based services.[394] Nonetheless, we understand concerns that some carriers may be moving consumers onto

[392] *See generally, CAF Phase II Auction Order*, 31 FCC Rcd at 5975-5979, paras. 82-90, *Connect America Fund et al.*, WC Docket 10-90 et al., Report and Order and Order on Reconsideration, 32 FCC Rcd 1624 (2017), *Connect America Fund et al.*, WC Docket 10-90 et al., Order on Reconsideration, 33 FCC Rcd 1380 (2018).

[393] *CAF Phase II Auction Order*, 31 FCC Rcd at 6009-6018, paras. 169-194.

[394] *See 2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3120, para 87; *see also* Letter from Deb Fischer, United States Senate, et al., to the Honorable Ajit Pai, Michael O'Rielly, and Mignon Clyburn, FCC, Apr. 11, 2017, *available at* https://www.fischer.senate.gov/public/_cache/files/2ce17662-d515-494a-8c74-0723d3a113bb/letter-to-fcc-on-standalone-broadband-final.pdf; Letter from Kevin Cramer, Member of Congress, et al., to the Honorable Ajit Pai, Chairman, Michael O'Rielly, and Mignon Clyburn, FCC, May 2, 2017, *available at* https://docs.fcc.gov/public/attachments/DOC-345823A7.pdf; *and* Letter from John Thune, United States Senate, et al., to the Honorable Thomas Wheeler, Chairman, FCC, May 11, 2015, *available at*

broadband-only lines for the purpose of artificially increasing the support they receive from the Fund. We seek comment on whether other measures are necessary or advisable to address this issue.

201. We seek comment on whether the Commission should adopt limits on the number of converted lines for which a carrier may seek broadband-only support. Several parties have informally suggested this may be a useful method of limiting increases to the budget. Although this approach would allow for a planned and smooth increase to the budget, it puts an artificial constraint on conversions. More and more customers want broadband-only lines, with interconnected VoIP or wireless service for voice. Such limitations could also lead to arbitrage opportunities as carriers seek to adjust their line counts. We seek comment on whether the benefits of such a limitation would exceed the burdens.

202. We also seek comment on other methods of addressing the increased funding needs as lines convert to broadband-only. First, we note that when a line converts to broadband-only, the carrier immediately begins receiving the increased CAF BLS support but also continues to receive HCLS for two years even though there is no longer intrastate voice service on the line because of the manner in which HCLS is calculated.[395] Should carriers immediately lose HCLS for any lines converted to broadband? Given that CAF BLS support for broadband-only lines is typically greater than total HCLS and CAF BLS for voice and voice/broadband lines, eliminating HCLS for converted lines would still provide carriers with sufficient support.

203. Some suggest carriers are switching consumers from traditional telephone service to interconnected VoIP service for the sole purpose of maximizing overall support amounts. We seek comment on how to encourage the transition to broadband networks while preventing carriers from using the transition as a way to artificially inflate their support amounts.

204. Is there a way we can adjust our CAF ICC rules to discourage any arbitrage? The Commission created CAF ICC support to aid carriers in the transition to bill-and-keep for their traditional voice services, and legacy carriers are eligible to receive such support. To calculate a carrier's CAF ICC support,[396] a carrier subtracts its Access Recovery Charge (ARC)[397] assessed on voice end-users from its "Eligible Recovery"—the total funding a carrier is entitled to receive from any source under our rules for the transition.[398] Importantly, the rules generally require carriers to impute an amount on broadband-only

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https://www.commerce.senate.gov/public/_cache/files/15daff5b-4d50-4d14-a17d-85647f3ff97a/5F944C3A243A8E0A0C87755E172D99C5.thune-klobuchar-standalone-rural-bb-2015-3-.pdf

[395] *See* FWA Comments, Attachment 1 at 7.

[396] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17981, para. 896.

[397] The ARC is the end-user charge component of the ICC recovery mechanism adopted in the *USF/ICC Transformation Order*. Incumbent LECs are authorized to charge ARCs, subject to annual caps and to an overall rate ceiling, in order to partially mitigate the effect of reduced intercarrier revenues on carriers. *See USF/ICC Transformation Order*, 26 FCC Rcd at 17677, para. 36, 17957, para. 849; *see also* 47 CFR §§ 51.915(e), 51.917(e).

[398] Calculation of a rate-of-return carrier's CAF ICC support begins with a calculation of the carrier's base period revenue. A carrier's base period revenue is the sum of certain ICC intrastate switched access revenues and net reciprocal compensation revenues for services provided during FY 2011 that were collected by March 31, 2012, plus the projected revenue requirement for interstate switched access services provided during the 2011-2012 tariff period. *See* 47 CFR § 51.917(b)(7); the 2011-2012 tariff period was July 1, 2011, through June 30, 2012. The base period revenue is then reduced by 5% initially and by an additional 5% in each year of the transition. *See* 47 CFR § 51.917(b)(3). That 5% reduction is intended to reflect the declining minutes-of-use and hence the declining revenues from intercarrier compensation. The amount a rate-of-return incumbent LEC is entitled to recover in each year of the transition is equal to the adjusted base period revenue for the year in question less the sum of: (1) projected intrastate switched access revenue; (2) projected interstate switched access revenue; and (3) projected net reciprocal compensation revenue. *See* 47 CFR § 51.917(d). The remainder is the carrier's Eligible Recovery. The demand projections that are part of these projected revenue calculations are "trued-up" after two years. *See* 47 CFR § 51.917(d)(iii)(D).

lines equal to the ARCs they would have assessed on voice and voice/broadband access lines.[399] Notably, CAF ICC support comes with limited deployment obligations[400] and is subject to a fixed annual reduction of 5% to reflect decreasing demand due to line loss.[401] Meanwhile, as explained above, CAF BLS comes with particularized deployment obligations and increases to reflect additional interstate costs when carriers migrate customers onto broadband-only lines. What measures can we take to prevent carriers from gaming this apparent mismatch in our universal service and intercarrier compensation rules? Specifically, is there a way to determine whether a legacy carrier is migrating its customers to broadband only lines as part of the desired transition to all broadband networks or to benefit from increased high-cost support? Are there circumstances under which a legacy carrier that converts a line to broadband-only but retains that voice customer with interconnected VoIP service should have to impute some portion of those revenues against its CAF ICC support? If so, how much should be imputed? Are there other measures we should consider to address these concerns?

C. Tribal Broadband Factor for Legacy Carriers

205. To address the unique challenges of deploying high-speed broadband to rural Tribal communities, we incorporate a Tribal Broadband Factor into the A-CAM II offer. In recognition that many rural, Tribal areas contain a high concentration of low-income individuals and few business subscribers—and thus have lower take rates and potential average revenues per subscriber than non-Tribal areas—the Tribal Broadband Factor reduces the high-cost funding threshold by 25% to a benchmark of $39.38 for locations in Indian Country. As a result, carriers opting for the A-CAM II offer will receive more funding and be required to deploy to more locations than they would have without the Tribal Broadband Factor. In recent weeks, NTTA and Gila River have proposed applying the Tribal Broadband Factor from the A-CAM II offer to legacy carriers. NTTA suggests addressing legacy support by reducing the CAF BLS "$42 per month per line funding threshold by 25 percent to $31.50 . . . [and] revising the HCLS algorithm using a similar 25 percent factor."[402]

206. We seek comment on this proposal as well as other ways to appropriately incorporate a Tribal Broadband Factor into the legacy system. *First*, we seek comment on whether to incorporate a Tribal Broadband Factor into the legacy program. How do the differences between the A-CAM II offer and legacy support impact our analysis? For example, the A-CAM II offer is based on the estimated take rates and potential revenues per subscribers, whereas the legacy program is based on actual take rates and imputed revenues per subscriber. Does this difference suggest a different means of implementing a Tribal Broadband Factor in the legacy program? If so, in what way? Also, do the newly increased legacy budget, along with elimination of the capital investment allowance and earlier opex limitation relief, mitigate to a degree the need for a Tribal Broadband Factor for legacy carriers? If so, how much?

207. *Second*, if we were to proceed with a Tribal Broadband Factor for CAF BLS, how should it be structured? For CAF BLS, should we reduce the $42 per line funding threshold to $39.38 (the high cost funding threshold for the A-CAM II offer), to $31.50 (as suggested by NTTA), or to some other amount? How should the structural differences between the CAF BLS program and the A-CAM II offer impact our decision? Should we adopt a Tribal Broadband factor that applies to all carriers serving Tribal lands (as we have defined that for the purposes of the A-CAM II offer), or should we target it based on the level of existing deployments, whether by the legacy carrier or its competitors? What additional deployment obligations should we apply to carriers receiving the benefit of a Tribal Broadband Factor?

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[399] 47 CFR § 51.917(f).

[400] *See USF/ICC Transformation Order*, 26 FCC Rcd at 17961, para. 853 & n.1648.

[401] *See id*. at 17980, para. 894.

[402] *See* Letter from Godfrey Enjady, President NTTA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90, at 2 (Dec. 5, 2018); *see also* Gila River Dec. 5 Letter at 3, *and* Letter from Douglas K. Kitch, CPA Principal, Alexicon Telecommunications Consulting, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 11-42, Attachment at 5 (Oct. 25, 2018).

And what other rules, if any, would we need to amend to make a Tribal Broadband Factor a reality for CAF BLS?

208. *Third*, should we proceed with a Tribal Broadband Factor for HCLS? Whereas the A-CAM II offer is designed to support broadband-capable networks and requires concrete buildout obligations in exchange for support, the HCLS component of the legacy program is designed to offset the intrastate costs of voice networks without any corresponding buildout obligations. Given that context, would a Tribal Broadband Factor make sense applied to HCLS? If so, how could we revise the HCLS algorithm to incorporate a Tribal Broadband Factor? What would the impact be on other carriers participating in these programs given our decision to maintain the separate HCLS funding cap? Should we create new broadband deployment obligations tied to any increase in HCLS funding from a Tribal Broadband Factor, and if so, how should we do so? And what other rules, if any, would we need to amend to make a Tribal Broadband Factor a reality for HCLS?

209. *Finally*, we seek comment on whether there are any other approaches we should consider in creating a Tribal Broadband Factor for legacy rate-of-return carriers. And if so, what are those approaches and how should they work?

V. ORDER ON RECONSIDERATION

210. *Introduction*. In this Order on Reconsideration, we deny three petitions purportedly seeking reconsideration of the Commission's decision in the *2018 Rate-of-Return Report and Order and NPRM* to increase A-CAM support by approximately $36.5 million annually—increasing support up to $146.10 per location for all A-CAM carriers authorized on January 24, 2017.[403] Grand River Mutual Telephone Corporation (Grand River) requests additional A-CAM support for 747 locations.[404] Clarity Telecom, LLC (Clarity) requests additional A-CAM support for 2,167 locations.[405] Hamilton County Telephone Co-op (Hamilton) (collectively, Petitioners) requests additional A-CAM support for 2,444 locations.[406] The petitions for reconsideration "relate to matters outside the scope of the order for which reconsideration is sought."[407] Accordingly, we deny them.

211. *Background*. In the initial A-CAM offer described in the accompanying Report and Order, the Commission excluded from A-CAM funding census blocks served by an unsubsidized competitor offering voice and at least 10/1 Mbps service.[408] Pursuant to a streamlined challenge process, on April 28, 2016, Hamilton challenged the FCC Form 477 coverage claims of an unsubsidized competitor, Wisper ISP.[409] On July 25, 2016, the Bureau denied Hamilton's challenge because "none of [the] evidence, even when considered in totality, was sufficient to show that there was no possibility the challenged provider served at least one location in the challenged census blocks."[410] In addition to

[403] *2018 Rate-of-Return Reform Order and NPRM* at 31, para. 66.

[404] Petition of Grand River Mutual Telephone Corporation for Reconsideration, WC Docket No. 10-90 et al. (May 2, 2018) (Grand River Reconsideration Petition).

[405] Petition of Clarity Telecom, LLC for Reconsideration, WC Docket No. 10-90 et al. (May 10, 2018) (Clarity Reconsideration Petition).

[406] Petition of Hamilton County Telephone Co-op for Reconsideration, WC Docket No. 10-90 et al. (May 8, 2018) (Hamilton Reconsideration Petition).

[407] 47 CFR § 1.429(l)(5).

[408] *2016 Rate-of-Return Reform Order*, 31 FCC Rcd at 3111, para. 59. The determination of unsubsidized competition was based on June 2015 FCC Form 477 data and then subject to a streamlined challenge process. *See id.*

[409] *See* A-CAM Competitive Coverage Challenge by Hamilton County Telephone Co-op, WC Docket No. 10-90 (Apr. 28, 2016).

[410] *Connect America Fund*, WC Docket No. 10-90, Order, 31 FCC Rcd 7790, 7806, para. 55 (WCB 2016) (*A-CAM Challenge Process Order*).

excluding census blocks with unsubsidized competition, the Commission excluded census blocks where the incumbent already deployed FTTP or the incumbent or any affiliated entity was providing 10/1 Mbps or better broadband using cable technologies.[411] On August 3, 2016, the Bureau made the original A-CAM offer to the Petitioners pursuant to the Commission's directions.[412]

212. Subsequently, on August 23, 2016, Hamilton filed an *ex parte* with the Commission to "draw attention" to its excluded census blocks from what it claimed was a "flawed" challenge process.[413] Hamilton never filed a petition for reconsideration or application for review of the *A-CAM Challenge Process Order,* however. On September 8, 2016 and September 23, 2016, Clarity and Grand River, respectively, sought waiver of the Commission's direction to use the June 2015 FCC Form 477 data as of March 30, 2016 to determine FTTP and/or cable deployment.[414] Clarity and Grand River asked the Bureau to revise their A-CAM offers to incorporate corrected FCC Form 477 data submitted after March 30, 2016. The carriers conceded that inadvertent errors on their own behalf contributed to the purported support miscalculations.[415]

213. The Bureau denied the waiver requests reasoning that imposing administrative closure on the data set for incumbent study areas at a specific moment in time was "necessary for efficient implementation of the overall reform effort."[416] Moreover, the Bureau noted that in the *2016 Rate-of-Return Reform Order,* the Commission had clearly stated that "carriers may not resubmit their previously filed data to reduce their reported FTTP or cable coverage."[417] After the revised A-CAM offers described in the accompanying Report and Order,[418] the Bureau ultimately authorized the Petitioners for A-CAM on January 24, 2017.[419]

214. In the *2018 Rate-of-Return Reform Order and NPRM*, the Commission allocated more high-cost funding for A-CAM—approximately $36.5 million annually, increasing support up to $146.10 per location (not the full amount of the original offer that provided up to $200 per location)—for all

[411] *Id.* at 3109, para. 56. To make this determination, the Commission directed the Bureau to use the June 2015 FCC Form 477 data that had been submitted and certified to the Commission prior to the date of release of the *2016 Rate-of-Return Reform Order*, which was March 30, 2016. *Id.* at 3109, para. 56. *See also Wireline Competition Bureau Releases Alternative Connect America Cost Model Version 2.1 And Illustrative Results for Potential Use in Rate-Of-Return Areas*, WC Docket No. 10-90, Public Notice, 30 FCC Rcd 14217, 14217 (WCB 2015) (providing "an alternative coverage option that excludes from support calculations census blocks served with either fiber to the premises (FTTP) or cable, as requested by one commenter.").

[412] *See Wireline Competition Bureau Announces Support Amounts Offered to Rate-of-Return Carriers to Expand Rural Broadband*, WC Docket No. 10-90, Public Notice, 31 FCC Rcd 8641, 8642 (WCB 2016).

[413] *See* Letter from Kevin Pyle, GM/EVP, Hamilton County Telephone Co-op, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (Aug. 23, 2016).

[414] Emergency Request for Expedited Treatment, Petition for Waiver of Deadline to Submit Form 477 Revisions, of Clarity, CC Docket No. 01-92, WC Docket No. 10-90 et al. (Sept. 8, 2016) (Clarity Waiver Petition). Grand River Mutual Telephone Corporation, Petition for Waiver of Deadline to Submit Form 477 Revisions, WC Docket No 10-90, CC Docket No. 01-92, WC Docket No. 10-90 et al, (Sept. 23, 2016.) (Grand River Waiver Petition).

[415] Grand River claimed that an engineering firm they hired incorrectly listed census blocks as having fiber, when in reality they contained copper only. *See* Grand River Waiver Petition. Clarity claimed that it erroneously listed some locations on their FCC Form 477 as containing cable modem service, when in reality the technology was DSL *See* Clarity Waiver Petition.

[416] *See Connect America Fund,* Order, 31 FCC Rcd 11743, 11745, para. 7 (WCB 2016) (*Grand River Order*); *see also Connect America Fund,* Order. 31 FCC Rcd 10664, 10668, para. 11 (WCB 2016) (*Clarity Order*) (collectively, *2016 Orders*).

[417] *Grand River Order*, 31 FCC at 11745, para. 7 & n.17, *and Clarity Order*, 31 FCC Rcd at 10668, para. 11.

carriers that accepted the revised offer.[420] Petitioners now purportedly seek reconsideration of that order, requesting that we make additional A-CAM funding available "to allow for inclusion" of the Petitioners' particular locations at issue in their waiver request/challenge process (the 747 locations for Grand River; the 2,167 locations for Clarity; and the 2,444 locations for Hamilton).[421]

215. *Discussion*. We deny all three petitions for reconsideration because they "relate to matters outside the scope of the order for which reconsideration is sought."[422] While on their face, the Petitioners are asking for an additional increase of A-CAM support, in effect, they are requesting that we reconsider what locations (census blocks) are eligible for A-CAM support. In other words, to increase the amount of support as Petitioners request, we would have to first direct the Bureau to revise the A-CAM eligible census blocks, which was not at issue in the *2018 Rate-of-Return Reform Order and NPRM*. Rather, the Commission made the determination regarding eligible census blocks in the *2016 Rate-of-Return Reform Order*. Since that 2016 order, the Commission has not sought comment on or otherwise indicated in any way that would allow changes, modifications, or adjustments to funded locations for authorized A-CAM carriers. Finally, we find that Petitioners' requests as they phrase them and as they argue pertain only to them and do not justify a change of any rule of general applicability based on their pleadings. Accordingly, we deny the three petitions for reconsideration.

216. Even were we to address the petitions for reconsideration on their merits, the arguments raise nothing new to consider and are identical to petitions the Bureau rejected in the *2016 Orders* and *A-CAM Challenge Process Order*. With respect to Hamilton, its attempt to introduce "new evidence" falls short. The "new evidence" is that since Hamilton accepted its A-CAM offer, Wisper ISP updated its FCC Form 477 and reduced the number of census blocks that "knocked out many" locations. Hamilton also claims that Wisper ISP decommissioned a tower that "would have supposedly served some of the locations that were rendered ineligible from the A-CAM funding."[423] Hamilton then claims that it "knows without a doubt" Wisper ISP will not provide service in the area.[424]

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[418] In response to the *A-CAM Revised Offer FNPRM*, none of the Petitioners individually filed comments during the comment period but did subsequently file and participate in *ex partes* advocating for additional A-CAM funding for the locations subject to Grand River's and Clarity's waiver requests and Hamilton's challenge process. Letter from Ronald T. Hinds, CEO, Grand River Mutual Telephone Corporation to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (Apr. 18, 2017); Letter from Larry D. Thompson, Vantage Point Solutions, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (Apr. 21, 2017); Letter from John Kuykendall, JSI Vice President, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (Apr. 28, 2017); Letter from Dustin Johnson, Vantage Point Solutions, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 90 (June 15, 2017); Letter from Larry Thompson, Vantage Point Solutions, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (June 29, 2017); Letter from Kevin Pyle, GM/EVP, Hamilton County Telephone Co-op, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 (July 6, 2017).

[419] *A-CAM Second Authorization Public Notice*, 32 FCC Rcd at 849, 850, 852 (WCB 2017).

[420] *2018 Rate-of-Return Reform Order and NPRM* at 29-31, paras. 62-68.

[421] *See* Hamilton Reconsideration Petition at 6, Clarity Reconsideration Petition at 5, *and* Grand River Reconsideration Petition 6. Grand River filed comments in response to the *2018 Rate-of-Return Reform Order and NPRM* supporting its petition. *See* Reply Comments of Grand River Mutual Telephone Corporation, WC Docket Nos. 10-90 et al. (June 25, 2018). NTCA supports Petitioners request for additional funds, noting that our next budget term should include those estimated amounts. *See* Reply Comments of NTCA-The Rural Broadband Association, WC Docket Nos. 10-90 et al. (July 9, 2018), *and* Letter from Michael R. Romano, Senior VP – Industry Affairs & Business Development, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, et al. (July 13, 2018).

[422] 47 CFR § 1.429(l)(5).

[423] Hamilton Reconsideration Petition at 6.

[424] *Id.*

217. Regarding the decommissioned tower and Wisper ISP's lack of intention to provide service in the area, Hamilton provides no support or evidence to back its claims. In addition, Hamilton's petition lacks clarity on the number of locations that should be funded due to Wisper ISP's updated FCC Form 477 and its decommissioned tower. Wisper ISP apparently still serves some of the area, so we can surmise that not all of Hamilton's 2,444 locations would be funded. Based on the record before us, however, we cannot determine an exact number. Accordingly, Hamilton's petition is unpersuasive on the merits.

218. As to Clarity and Grand River, we agree with the Bureau's decision not to waive the date for determining FTTP and cable deployment. As the Bureau determined, administrative closure on the data set for incumbent study areas "at a specific moment in time" was necessary for "efficient implementation of the overall reform effort."[425] Moreover, as the Bureau recognized, the Commission clearly stated that under the terms of their offers, "carriers may not resubmit their previously filed data to reduce their reported FTTP or cable coverage."[426]

VI. PROCEDURAL MATTERS

219. *Ex Parte* Presentations. The proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.[427] Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

220. *Comment Filing Procedures*. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments and reply comments may be filed using the Commission's Electronic Comment Filing System (ECFS). *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://apps.fcc.gov/ecfs/.

- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

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[425] *See Grand River Order*, 31 FCC at 11745, para. 7 & n.10; *Clarity Order,* 31 FCC Rcd at 10668*,* para. 11.

[426] *Grand River Order*, 31 FCC at 11745, para. 7 & n.17; *Clarity Order*, 31 FCC Rcd at 10668, para. 11.

[427] 47 CFR §§ 1.1200 *et seq.*

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.

- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.

- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

221. People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

222. *Regulatory Flexibility Analysis*. As required by the Regulatory Flexibility Act of 1980, *see* 5 U.S.C. § 603, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules addressed in this document. The IRFA is set forth in Appendix B. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments filed in response to this *Further Notice of Proposed Rulemaking* as set forth herein, and they should have a separate and distinct heading designating them as responses to the IRFA. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, will send a copy of the *Further Notice of Proposed Rulemaking*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[428]

223. The Regulatory Flexibility Act of 1980 (RFA) requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[429] Accordingly, we have prepared a FRFA concerning the possible impact of the rule changes contained in the Report and Order on small entities. The FRFA is set forth in Appendix C.

224. *Paperwork Reduction Act Analysis*. This Report and Order contains new and/or modified information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995 (PRA).[430] In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4), we previously sought comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

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[428] *See* 5 U.S.C. § 603(a).

[429] 5 U.S.C. § 605(b).

[430] *See* Paperwork Reduction Act of 1995, Public Law 104-13.

225. *Congressional Review Act*. The Commission will send a copy of this Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. § 801(a)(1)(A).

226. *Additional Information*. For additional information on this proceeding, contact Suzanne Yelen, Suzanne.Yelen@fcc.gov, (202) 418-7400, or Alexander Minard, Alexander.Minard@fcc.gov, (202) 418-7400, of the Wireline Competition Bureau, Technology Access Policy Division.

VII. ORDERING CLAUSES

227. Accordingly, IT IS ORDERED that, pursuant to the authority contained in sections 1-4, 5, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 405 of the Communications Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. §§ 151-155, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 403, 405, and 1302, this Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration IS ADOPTED, effective thirty (30) days after publication of the text or summary thereof in the Federal Register, except for those rules and requirements involving Paperwork Reduction Act burdens, which shall become effective immediately upon announcement in the Federal Register of OMB approval, and the rules adopted pursuant to section III.C.8 of this Report and Order shall become effective on January 1, 2020. It is our intention in adopting these rules that if any of the rules that we retain, modify, or adopt herein, or the application thereof to any person or circumstance, are held to be unlawful, the remaining portions of the rules not deemed unlawful, and the application of such rules to other persons or circumstances, shall remain in effect to the fullest extent permitted by law.

228. IT IS FURTHER ORDERED that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration including the Initial Regulatory Flexibility Analysis and the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

229. IT IS FURTHER ORDERED that Part 32, 54, and 65 of the Commission's rules, 47 CFR Part 32, 54, and 65, ARE AMENDED as set forth in Appendix A, and such rule amendments SHALL BE EFFECTIVE thirty (30) days after publication of the rules amendments in the Federal Register, except that those rules and requirements which contain new or modified information collection requirements that require approval by the Office of Management and Budget under the Paperwork Reduction Act WILL BECOME EFFECTIVE after the Commission publishes a notice in the Federal Register announcing such approval and the relevant effective date, and the rules adopted pursuant to section III.C.8 of this Report and Order shall become effective on January 1, 2020.

230. IT IS FURTHER ORDERED that, pursuant to the authority contained in sections 1, 2, 4(i), 5, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 1302 of the Communications Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. §§ 151, 152, 154(i), 155, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, 1302, NOTICE IS HEREBY GIVEN of the proposals and tentative conclusions described in this Further Notice of Proposed Rulemaking.

231. IT IS FURTHER ORDERED that, pursuant to the authority contained in section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and sections 0.331 and 1.429 of the Commission's rules, 47 C.F.R. § 0.331 and 47 C.F.R. § 1.429, the Petition for Reconsideration filed by GRAND RIVER MUTUAL TELEPHONE CORPORATION on May 2, 2018 IS DENIED.

232. IT IS FURTHER ORDERED that, pursuant to the authority contained in section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and sections 0.331 and 1.429 of the Commission's rules, 47 C.F.R. § 0.331 and 47 C.F.R. § 1.429, the Petition for Reconsideration filed by CLARITY TELECOM, LLC on May 10, 2018 IS DENIED.

233. IT IS FURTHER ORDERED that, pursuant to the authority contained in section 405 of the Communications Act of 1934, as amended, 47 U.S.C. § 405, and sections 0.331 and 1.429 of the Commission's rules, 47 C.F.R. § 0.331 and 47 C.F.R. § 1.429, the Petition for Reconsideration filed by HAMILTON COUNTY TELEPHONE CO-OP on May 8, 2018 IS DENIED.

234. IT IS FURTHER ORDERED, pursuant to section 1.3 of the Commission's rules, 47 C.F.R. § 1.3, we waive Part 32 rules to the extent necessary to allow carriers subject to those rules to employ the revised procedures adopted in section III.C.8.

235. IT IS FURTHER ORDERED that the Commission SHALL SEND a copy of this Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A
FINAL RULES

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 32, 54 and 65 as follows:

PART 32 – UNIFORM SYSTEM OF ACCOUNTS FOR TELECOMMUNICATIONS COMPANIES

1. The authority citation for Part 32 continues to read as follow:

   AUTHORITY: 47 U.S.C. 219, 220 as amended, unless otherwise noted.

2. Amend § 32.1410 by adding paragraphs (l) and (m) to read as follows:

§ 32.1410 Other noncurrent assets.

* * * * *

(l) This account shall include property subject to a lessee operating lease longer than one year.

(1) An operating lease is a contract, or part of a contract, that conveys the right to control the use of identified property, plant and equipment (an identified asset) for a period of time in exchange for consideration.

(2) The amounts recorded in this account at the inception of an operating lease shall be equal to the present value not to exceed fair value, at the beginning of the lease term, of minimum lease payments during the lease term, excluding that portion of the payments representing executory costs to be paid by the lessor, together with any profit thereon. Amounts subject to current treatment shall be included in Account 1350, Other current assets.

(3) Any balance in this account relating to capitalized operating leases shall be excluded in any ratemaking calculations.

(m) This account shall include the amount of lessor receivables from an operating lease longer than one year.

(1) The amount recorded in this account at the inception of an operating lease shall be equal to the present value not to exceed fair value, at the beginning of the lease term, of minimum lease payments during the lease term, excluding that portion of the payments representing executory costs to be paid by the lessee, together with any profit thereon. Amounts subject to current settlement shall be included in Account 1350, Other current assets.

(2) Any balance in this account relating to receivables associated with capitalized operating leases shall be excluded in any ratemaking calculations.

3. Amend § 32.2680 to read as follows:

§32.2680 Amortizable tangible assets.

This account shall be used by companies to record amounts for property acquired under finance leases and the original cost of leasehold improvements of the type of character detailed in Accounts 2681 and 2682.

4. Amend § 32.2681 by revising the title and paragraphs (a) and (c) to read as follows:

§ 32.2681 Finance leases.

(a) This account shall include all property acquired under a finance lease. A lease qualifies as a finance lease when one or more of the following criteria is met:

* * * * *

(c) The amounts recorded in this account at the inception of a finance lease shall be equal to the original cost, if known, or to the present value not to exceed fair value, at the beginning of the lease term, of minimum lease payments during the lease term, excluding that portion of the payments representing executory costs to be paid by the lessor, together with any profit thereon.

5. Amend §32.2682 by revising paragraph (a) to read as follows:

§32.2682 Leasehold improvements.

(a) This account shall include the original cost of leasehold improvements made to telecommunications plant held under a finance or operating lease, which are subject to amortization treatment. This account shall also include those improvements which will revert to the lessor.

* * * * *

6. Amend §32.3400 by revising paragraphs (a)(1) and (b) to read as follows:

§32.3400 Accumulated amortization—tangible.

(a) * * *

(1) the accumulated amortization associated with the investment contained in Account 2681, Finance leases.

* * * * *

(b) This account shall be credited with amounts for the amortization of finance leases and leasehold improvements concurrently charged to Account 6563, Amortization expense—tangible. (Note also Account 3300, Accumulated depreciation—nonoperating.)

* * * * *

7. Amend §32.3410 by revising the title and paragraphs (a) and (b) to read as follows:

§32.3410 Accumulated amortization—capitalized finance leases.

(a) This account shall include the accumulated amortization associated with the investment contained in Account 2681, Finance Leases.

(b) This account shall be credited with amounts for the amortization of finance leases concurrently charged to Account 6563, Amortization expense—tangible. (Note also Account 3300, Accumulated depreciation—nonoperating.)

8. Amend §32.4130 by revising paragraph (c) to read as follows:

<u>§32.4130 Other current liabilities.</u>

* * * * *

(c) The current portion of obligations applicable to property obtained under finance leases.

* * * * *

9. Amend §32.4200 by revising paragraph (a)(5) and adding paragraph (a)(9) to read as follows:

<u>§32.4200 Long term debt and funded debt.</u>

(a) * * *

(5) The noncurrent portion of obligations applicable to property obtained under finance leases. Amounts subject to current settlement shall be included in Account 4130, Other current liabilities.

* * * * *

(9) The noncurrent portion of obligations applicable to property subject to capitalized operating leases. Amounts subject to current settlement shall be included in Account 4130, Other current liabilities. Any balance in this account relating to capitalized operating leases shall be excluded in any ratemaking calculations.

* * * * *

10. Amend §32.4300 by adding paragraph (c) to read as follows:

<u>§32.4300 Other long-term liabilities and deferred credits.</u>

* * * * *

(c) This account shall include the deferred obligations associated with a capitalize operating lease longer than one year. The amounts recorded in this account at the inception of an operating lease shall be equal to the present value not to exceed fair value, at the beginning of the lease term, of minimum lease payments during the lease term, excluding that portion of the payments representing executory costs to be paid by the lessor, together with any profit thereon.

11. Amend §32.7500 by adding paragraph (e) to read as follows:

<u>§32.7500 Interest and related items.</u>

* * * * *

(e) This account shall include the interest portion of each finance lease and capitalized operating lease payment.

* * * * *

PART 54—UNIVERSAL SERVICE

12. The authority citation for part 54 continues to read as follows:

    AUTHORITY: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

13. Amend § 54.302 by adding two sentences to paragraph (a) and revising paragraph (c) to read as follows:

§ 54.302 Monthly per-line limit on universal service support.

(a) * * * Beginning July 1, 2019, until June 30, 2021, each study area's universal service monthly per-line support shall not exceed $225. Beginning July 1, 2021, each study area's universal service monthly per-line support shall not exceed $200.

* * * * *

(c) The Administrator, in order to limit support for carriers pursuant to paragraph (a) of this section, shall reduce safety net additive support, high-cost loop support, safety valve support, and Connect America Fund Broadband Loop Support in proportion to the relative amounts of each support the study area would receive absent such limitation.

14. Amend § 54.303 by removing and reserving paragraph (b) and removing paragraphs (c) through (m) to read as follows:

§54.303 Eligible Capital Investment and Operating Expenses.

* * * * *

(b) [Reserved]

15. Amend § 54.308 by

    a. Revising the first sentence of paragraph (a)(1);

    b. Adding paragraphs (a)(1)(iii) and (a)(1)(iv);

    c. Revising paragraphs (a)(2), (a)(2)(i), (a)(2)(i)(A), (a)(2)(i)(B), (a)(2)(i)(C), (a)(2)(ii)(A)(*1*), (a)(2)(ii)(A)(*2*), (a)(2)(ii)(B), and (a)(2)(iii); and

    d. Removing paragraph(a)(2)(iii)(B).

The revisions, addition, and removal read as follows:

§54.308 Broadband public interest obligations for recipients of high-cost support.

(a) * * *

(1) Carriers that elect to receive Connect America Fund-Alternative Connect America Cost Model (CAF-ACAM) support pursuant to §54.311 are required to offer broadband service at actual speeds of at least 10 Mbps downstream/1 Mbps upstream to a defined number of locations as specified by public notice, with a minimum usage allowance of 150 GB per month, subject to the requirement that usage allowances remain consistent with median usage in the United States over the course of the term. * * *

* * * * *

(iii) Revised A-CAM I carriers, as defined by §54.311(a)(2), must offer the following broadband speeds to locations that are fully funded, as specified by public notice at the time of the authorizations, as follows:

(A) Revised A-CAM I carriers with a state-level density of more than 10 housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 85 percent of all fully funded locations in the state by the end of the term.

(B) Revised A-CAM I carriers with a state-level density of 10 or fewer, but more than five, housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 65 percent of fully funded locations in the state by the end of the term.

(C) Revised A-CAM I carriers with a state-level density of five or fewer housing units per square mile, as specified by public notice at the time of election, are required to offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 50 percent of fully funded locations in the state by the end of the term.

(iv) A-CAM II carriers, as defined by §54.311(a)(3), must offer broadband speeds of at least 25 Mbps downstream/3 Mbps upstream to 100 percent of fully funded locations in the state by the end of the term, and therefore have no additional 10/1 Mbps obligation.

* * * * *

(2) Rate-of-return recipients of Connect America Fund Broadband Loop Support (CAF BLS) shall be required to offer broadband service at actual speeds of at least 25 Mbps downstream/3 Mbps upstream, over a five-year period, to a defined number of unserved locations as specified by public notice, as determined by the following methodology:

(i) *Percentage of CAF BLS.* Each rate-of-return carrier is required to target a defined percentage of its five-year forecasted CAF BLS support to the deployment of broadband service to locations that are unserved with 25 Mbps downstream/3 Mbps upstream broadband service as follows:

(A) Rate-of-return carriers with less than 20 percent deployment of 25/3 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to use 35 percent of their five-year forecasted CAF BLS support to extend broadband service where it is currently lacking.

(B) Rate-of-return carriers with more than 20 percent but less than 40 percent deployment of 25/3 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to use 25 percent of their five-year forecasted CAF BLS support to extend broadband service where it is currently lacking.

(C) Rate-of-return carriers with more than 40 percent deployment of 25/3 Mbps broadband service in their study areas, as determined by the Wireline Competition Bureau, will be required to use 20 percent of their five-year forecasted CAF BLS support to extend broadband service where it is currently lacking.

(ii) *Cost per location.* The deployment obligation shall be determined by dividing the amount of support set forth in paragraph (a)(2)(i) of this section by a cost per location figure based on one of two methodologies, at the carrier's election:

(A) The higher of:

(*1*) The weighted average unseparated cost per loop for carriers of similar density that offer 25/3 Mbps or better broadband service to at least 95 percent of locations, based on the most current FCC Form 477 data as determined by the Wireline Competition Bureau, but excluding carriers subject to the current per-line per-month cap set forth in §54.302 and carriers subject to limitations on operating expenses set forth in §54.303; *or*

(*2*) 150% of the weighted average of the cost per loop for carriers of similar density, but excluding carriers subject to the per line per month cap set forth in §54.302 and carriers subject to limitations on operating expenses set forth in §54.303, with a similar level of deployment of 25/3 Mbps or better broadband based on the most current FCC Form 477 data, as determined by Wireline Competition Bureau; or

(B) The average cost per location for census blocks lacking 25/3 Mbps broadband service in the carrier's study area as determined by the A-CAM.

(iii) *Restrictions on deployment obligations.* No rate-of-return carrier shall deploy terrestrial wireline technology in any census block if doing so would result in total support per line in the study area to exceed the per-line per-month cap in §54.302.

* * * * *

16. Amend § 54.311 by adding paragraphs (a)(1), (a)(2) and (a)(3), revising paragraph (c), (d), and (e) to read as follows:

<u>§54.311 Connect America Fund Alternative-Connect America Cost Model Support</u>

(a) * * *

(1) For the purposes of this section, "A-CAM I" refers to carriers initially authorized to receive CAF-ACAM support as of January 24, 2017, including any carriers that later elected revised offers, except for carriers described in subparagraph (2). For such carriers, the first program year of CAF-ACAM is 2017.

(2) For the purposes of this section, "Revised A-CAM I" refers to carriers initially authorized to receive CAF-ACAM support as of January 24, 2017, and were subsequently authorized to receive CAF-ACAM pursuant to a revised offer after January 1, 2019. For such carriers, the first program year of CAF-ACAM is 2017.

(3) For the purposes of this section, "A-CAM II" refers to carriers first authorized to receive A-CAM support after January 1, 2019. For such carriers, the first program year of CAF-ACAM is 2019.

* * * * *

(c) *Term of Support.* CAF-ACAM model-based support shall be provided to A-CAM I carriers for a term that extends until December 31, 2026, and to Revised A-CAM I and A-CAM II carriers for a term that extends until December 31, 2028.

(d) *Interim deployment milestones.* Recipients of CAF-ACAM model-based support must meet the following interim milestones with respect to their deployment obligations set forth in §54.308(a)(1)(i) of this subpart. Compliance shall be determined based on the total number of fully funded locations in a state. Carriers that complete deployment to at least 95 percent of the requisite number of locations will be deemed to be in compliance with their deployment obligations. The remaining locations that receive capped support are subject to the standard specified in §54.308(a)(1)(ii).

(1) A-CAM I and Revised A-CAM I carriers must complete deployment of 10/1 Mbps service to a number of eligible locations equal to 40 percent of fully funded locations by the end of 2020, to 50 percent of fully funded locations by the end of 2021, to 60 percent of fully funded locations by the end of 2022, to 70 percent of fully funded locations by the end of 2023, to 80 percent of fully funded locations by the end of 2024, to 90 percent of fully funded locations by the end of 2025, and to 100 percent of fully funded locations by the end of 2026. By the end of 2026, A-CAM I carriers must complete deployment of broadband meeting a standard of at least 25 Mbps downstream/3 Mbps upstream to the requisite number of locations specified in §54.308(a)(1)(i). For Revised A-CAM I carriers, the deployment milestones for 10/1 Mbps service described in this paragraph shall be based on the number of locations that were fully funded pursuant to authorizations made prior to January 1, 2019.

(2) Revised A-CAM I and A-CAM II carriers must complete deployment of 25/3 Mbps service to a number of eligible locations equal to 40 percent of locations required by §54.308(a)(1) of this subpart by the end of 2022, 50 percent of requisite locations by the end of 2023, 60 percent of requisite locations by the end of 2024, 70 percent of requisite location by the end of 2025, 80 percent of requisite locations by the end of 2026, 90 percent of requisite locations by the end of 2027, and 100 percent of requisite locations by the end of 2028.

(e) *Transition to CAF-ACAM Support.* An A-CAM I, Revised A-CAM I, or A-CAM II carrier whose final model-based support is less than the carrier's legacy rate-of-return support in its base year as defined in paragraph (e)(4) of this section, will transition as follows:

(1) If the difference between a carrier's model-based support and its base year support, as determined by paragraph (e)(4) of this section, is ten percent or less, it will receive, in addition to model-based support, 50 percent of that difference in program year one, and then will receive model support in program years two through ten.

(2) If the difference between a carrier's model-based support and its base year support, as determined in paragraph (e)(4) of this section, is 25 percent or less, but more than 10 percent, it will receive, in addition to model-based support, an additional transition payment for up to four years, and then will receive model support in program years five through ten. The transition payments will be phased-down 20 percent per year, provided that each phase-down amount is at least five percent of the total base year support amount. If 20 percent of the difference between a carrier's model-based support and base year support is less than five percent of the total base year support amount, the transition payments will be phased-down five percent of the total base year support amount each year.

(3) If the difference between a carrier's model-based support and its base year support, as determined in paragraph (e)(4) of this section, is more than 25 percent, it will receive, in addition to model-based support, an additional transition payment for up to nine years, and then will receive model support in year ten. The transition payments will be phased-down ten percent per year, provided that each phase-down amount is at least five percent of the total base year support amount. If ten percent of the difference between a carrier's model-based support and its base year support is less than five percent of the total base year support amount, the transition payments will be phased-down five percent of the total base year support amount each year.

(4) The carrier's base year support for purposes of the calculation of transition payments is:

(i) For A-CAM I and Revised A-CAM I carriers, the amount of high-cost loop support and interstate common line support disbursed to the carrier for 2015 without regard to prior period adjustments related to years other than 2015, as determined by the Administrator as of January 31, 2016 and publicly announced prior to the election period for the voluntary path to the model: and

(ii) For A-CAM II carriers, the amount of high-cost loop support and Connect America Fund – Broadband Loop Support disbursed to the carrier for 2018 without regard to prior period adjustments related to years other than 2018, as determined by the Administrator as of January 31, 2019 and publicly announced prior to the election period for the voluntary path to the model.

17. Amend § 54.313 to revise paragraph (f)(1)(i), and add paragraph (f)(5) to read as follow:

§54.313 Annual reporting requirements for high-cost recipients.

(f) * * *

(1) * * *

(i) If the rate-of-return carrier is receiving support pursuant to subparts K and M of this part, a certification that it is taking reasonable steps to provide upon reasonable request broadband service at actual speeds of at least 25 Mbps downstream/ 3 Mbps upstream, with latency suitable for real-time applications, including Voice over Internet Protocol, and usage capacity that is reasonably comparable to comparable offerings in urban areas as determined in an annual survey, and that requests for such service are met within a reasonable amount of time; if the rate-of-return carrier receives CAF-ACAM support, a certification that it is meeting the relevant reasonable request standard;* * *

* * * * *

(5) Rate-of-return carriers receiving support pursuant to the Alternative Connect America Model or the Alaska Plan, that are not otherwise required to file count data pursuant to §54.903(a)(1) of this subpart, must file the line count data required by §54.903(a)(1).

* * * * *

18. Amend § 54.316 to revise paragraphs (b)(2)(i), (b)(2)(ii), (b)(3)(i), and b(3)(ii) to read as follows:

§54.316 Broadband deployment reporting and certification requirements for high-cost recipients.

(b) * * *

(2) * * *

(i) No later than March 1, 2021, and every year thereafter ending on no later than March 1, 2029, a certification that by the end of the prior calendar year, it was offering broadband meeting the requisite public interest obligations specified in §54.308 to the required percentage of its fully funded locations in the state, pursuant to the interim deployment milestones set forth in §54.311(d).

(ii) No later than March 1, 2027, a certification that as of December 31, 2026, it was offering broadband meeting the requisite public interest obligations specified in §54.308(a)(1) to all of its fully funded locations in the state and to the required percentage of its capped locations in the state.

(b) * * *

(3) * * *

(i) No later than March 1, 2024, a certification that it fulfilled the deployment obligation meeting the requisite public interest obligations as specified in §54.308(a)(2) to the required number of locations as of December 31, 2023.

(ii) Every subsequent five-year period thereafter, a certification that it fulfilled the deployment obligation meeting the requisite public interest obligations as specified in §54.308(a)(2)(iv).

* * * * *

19. Amend § 54.319 to remove and reserve paragraphs (a) through (c):

§54.319 Elimination of high-cost support in areas with 100 percent coverage by an unsubsidized competitor.

(a) [Reserved].

(b) [Reserved].

(c) [Reserved].

* * * * *

20. Amend § 54.643 by revising paragraph (a)(6)(iv) to read as follows:

§54.643 Funding commitments.

(a) * * *

(6) * * *

(iv) Sustainability plans for applicants requesting support for long-term capital expenses: Consortia that seek funding to construct and own their own facilities or obtain indefeasible right of use or finance lease interests are required to submit a sustainability plan with their funding requests demonstrating how they intend to maintain and operate the facilities that are supported over the relevant time period. Applicants may incorporate by reference other portions of their applications (e.g., project management plan, budget). The sustainability plan must, at a minimum, address the following points:

* * * * *

21. Amend § 54.901 to remove and reserve paragraph (f)(2) and revise paragraph (f)(3) to read as follows:

§54.901 Calculation of Connect America Fund Broadband Loop Support.

(f) * * *

(2) [Reserved]

(3) The Administrator shall apply a pro rata reduction to CAF BLS for each recipient of CAF BLS as necessary to achieve the target amount.

* * * * *

22. Amend §54.903 to revise the first sentence of paragraph (a)(1) to read as follows:

§54.903 Obligations of rate-of-return carriers and the Administrator.

(a) * * *

(1) Each rate-of-return carrier shall submit to the Administrator on March 31 of each year the number of lines it served as of the prior December 31, within each rate-of-return carrier study area showing residential and single-line business line counts, multi-line business line counts, and consumer broadband-only line counts separately.* * *

* * * * *

23. Amend § 54.1310 to revise paragraph (d)(2) to read as follows:

§54.1310 Expense adjustment.

(d) * * *

(2) Each January 1 and July 1, the Administrator shall apply a pro rata reduction to High Cost Loop Support for each recipient of High Cost Loop Support as necessary to achieve the target amount.

* * * * *

PART 65 – INTERSTATE RATE OF RETURN PRESCRIPTION, PROCEDURES, AND METHODOLOGIES

24. The authority citation for Part 65 continues to read as follow:

AUTHORITY: 47 U.S.C. 151, 154(i), 155, 201, 205, 214, 219, 220, 254, 303(r), 403, and 1302 unless otherwise noted.

25. Amend §65.450 by revising paragraph (b)(1) to read as follows:

§65.450 Net income.

* * * * *

(b) * * *

(1) Gains related to property sold to others and leased back under finance leases for use in telecommunications services shall be recorded in Account 4300, Other long-term liabilities and

deferred credits, and credited to Account 6563, Amortization expense—tangible, over the amortization period established for the finance lease;

* * * * *

APPENDIX B

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[1] the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities from the policies and rules proposed in this Further Notice of Proposed Rulemaking (FNPRM). The Commission requests written public comment on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the FNPRM. The Commission will send a copy of the FNPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[2] In addition, the FNRPM and IRFA (or summaries thereof) will be published in the Federal Register.[3]

A. Need for, and Objectives of, the Proposed Rules

2. The proposals in this FNPRM seek to build on efforts to modernize the high-cost program by targeting support efficiently and providing market-based mechanisms to award support. In the FNPRM, we seek comment on issues related to auction design and service requirements stemming from the decision to use competitive bidding in study areas that are subject to a certain amount of competitive overlap from unsubsidized providers. We also seek comment whether the Commission should adopt limits on the number of converted lines for which a carrier may seek broadband-only support. Finally, we seek comment on additional support for legacy carriers serving Tribal areas.

B. Legal Basis

3. The legal basis for any action that may be taken pursuant to the FNPRM is contained in section 1, 2, 4(i), 5, 201-206, 214, 218-220, 251, 252, 254, 256, 303(r), 332, 403, and 1302 of the Communications Act of 1934, as amended, and section 706 of the Telecommunications Act of 1996, 47 U.S.C. §§ 151-155, 201-206, 214, 218-220, 251, 256, 254, 256, 303(r), 403, 405, and 1302.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

4. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[4] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[5] In addition, the term "small business" has the same meaning as the term "small-business concern" under the Small Business Act.[6] A small-business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of

[1] *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-12, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

[2] *See* 5 U.S.C. § 603(a).

[3] *Id.*

[4] *See* 5 U.S.C. § 603(b)(3).

[5] *See* 5 U.S.C. § 601(6).

[6] *See* 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[7]

1. Total Small Entities

5. *Small Businesses, Small Organizations, Small Governmental Jurisdictions*. Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three broad groups of small entities that could be directly affected herein.[8] First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA's Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.[9] These types of small businesses represent 99.9 percent of all businesses in the United States which translates to 28.8 million businesses.[10]

6. Next, the type of small entity described as a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[11] Nationwide, as of Aug 2016, there were approximately 356,494 small organizations based on registration and tax data filed by nonprofits with the Internal Revenue Service (IRS).[12]

7. Finally, the small entity described as a "small governmental jurisdiction" is defined generally as "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand."[13] U.S. Census Bureau data from the 2012 Census of Governments[14] indicates that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.[15] Of this number there were 37, 132 General purpose governments (county[16], municipal and town or township[17]) with populations of less than 50,000 and 12,184 Special purpose governments (independent school districts[18] and special districts[19]) with populations of less than 50,000. The 2012 U.S. Census Bureau data for most types of governments in the local government category shows that the majority of these governments have

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[7] *See* 15 U.S.C. § 632.

[8] *See* 5 U.S.C. § 601(3)-(6).

[9] *See* SBA, Office of Advocacy, "Frequently Asked Questions, Question 1 – What is a small business?" https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016)

[10] *See* SBA, Office of Advocacy, "Frequently Asked Questions, Question 2- How many small businesses are there in the U.S.?" https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016).

[11] 5 U.S.C. § 601(4).

[12] Data from the Urban Institute, National Center for Charitable Statistics (NCCS) reporting on nonprofit organizations registered with the IRS was used to estimate the number of small organizations. Reports generated using the NCCS online database indicated that as of August 2016 there were 356,494 registered nonprofits with total revenues of less than $100,000. Of this number, 326,897 entities filed tax returns with 65,113 registered nonprofits reporting total revenues of $50,000 or less on the IRS Form 990-N for Small Exempt Organizations and 261,784 nonprofits reporting total revenues of $100,000 or less on some other version of the IRS Form 990 within 24 months of the August 2016 data release date. *See* http://nccs.urban.org/sites/all/nccs-archive/html//tablewiz/tw.php where the report showing this data can be generated by selecting the following data fields: Report: "The Number and Finances of All Registered 501(c) Nonprofits"; Show: "Registered Nonprofits"; By: "Total Revenue Level (years 1995, Aug to 2016, Aug)"; and For: "2016, Aug" then selecting "Show Results".

[13] 5 U.S.C. § 601(5).

[14] *See* 13 U.S.C. § 161. The Census of Government is conducted every five (5) years compiling data for years ending with "2" and "7". *See also* Program Description Census of Government *https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=program&id=program.en.COG#.*

[15] *See* U.S. Census Bureau, 2012 Census of Governments, Local Governments by Type and State: 2012 - United States-States, *available at* https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG02.US01. Local

populations of less than 50,000.[20] Based on this data we estimate that at least 49,316 local government jurisdictions fall in the category of "small governmental jurisdictions."[21]

2. Broadband Internet Access Service Providers

8. *Internet Service Providers (Broadband).* Broadband Internet service providers include wired (e.g., cable, DSL) and VoIP service providers using their own operated wired telecommunications infrastructure fall in the category of Wired Telecommunication Carriers.[22] Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.[23] The SBA size standard for this category classifies a business as small if it has 1,500 or fewer employees.[24] U.S. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.[25] Consequently, under this size standard the majority of firms in this industry can be considered small.

3. Wireline Providers

9. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as "establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities

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governmental jurisdictions are classified in two categories - General purpose governments (county, municipal and town or township) and Special purpose governments (special districts and independent school districts).

[16] *See* U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01. There were 2,114 county governments with populations less than 50,000.

[17] *See* U.S. Census Bureau, 2012 Census of Governments, Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States – States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01. There were 18,811 municipal and 16,207 town and township governments with populations less than 50,000.

[18] *See* U.S. Census Bureau, 2012 Census of Governments, Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01. There were 12,184 independent school districts with enrollment populations less than 50,000.

[19] *See* U.S. Census Bureau, 2012 Census of Governments, Special District Governments by Function and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG09.US01. The U.S. Census Bureau data did not provide a population breakout for special district governments.

[20] *See* U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States - https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01; Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States–States - https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01; and Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01. While U.S. Census Bureau data did not provide a population breakout for special district governments, if the population of less than 50,000 for this category

and infrastructure that they operate are included in this industry."[26] The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.[27] U.S. Census Bureau data for 2012 shows that there were 3,117 firms that operated that year.[28] Of this total, 3,083 operated with fewer than 1,000 employees.[29] Thus, under this size standard, the majority of firms in this industry can be considered small.

10. *Incumbent Local Exchange Carriers* (*Incumbent LECs*). Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent LEC services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[30] According to Commission data,[31] 1,307 carriers reported that they were incumbent LEC providers.[32] Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.[33] Consequently, the Commission estimates that most providers of incumbent LEC service are small businesses.

11. Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[34] According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.[35] Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.[36] In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.[37] In addition, 72 carriers have reported that they are Other Local Service Providers.[38] Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500

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of local government is consistent with the other types of local governments the majority of the 38, 266 special district governments have populations of less than 50,000.

[21] *Id.*

[22] *See* 13 CFR § 121.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition show the NAICs code as 517311. *See*, https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017

[23] *Id.*

[24] *Id.*

[25] http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

[26] *See* 13 CFR § 120.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition shows the NAICS code as 517311 for Wired Telecommunications Carriers. *See*, https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017.

[27] *Id*.

[28] *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[29] *Id.*

[30] 13 CFR § 121.201, NAICS code 517311.

employees.[39] Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and other local service providers are small entities.

12. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[40] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.[41] We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

13. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[42] According to Commission data,[43] 359 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities.

14. *Operator Service Providers* (*OSPs*). Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[44] According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500

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[31] Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*).

[32] *See Trends in Telephone Service* at tbl. 5.3.

[33] *See id*.

[34] 13 CFR § 121.201, NAICS code 517311.

[35] *See Trends in Telephone Service* at tbl.5.3.

[36] *See id.*

[37] *See id*.

[38] *See id*.

[39] *See id*.

[40] 5 U.S.C. § 601(3).

[41] Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (May 27, 1999). The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

[42] 13 CFR § 121.201, NAICS code 517311.

[43] *Trends in Telephone Service*, tbl. 5.3.

[44] 13 CFR § 121.201, NAICS code 517311.

or fewer employees and two have more than 1,500 employees.[45] Consequently, the Commission estimates that the majority of OSPs are small entities.

15. *Prepaid Calling Card Providers*. Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[46] According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.[47] Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees.[48] Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities.

16. *Local Resellers.* The SBA has not developed a small business size standard specifically for Local Resellers. The SBA category of Telecommunications Resellers is the closest NAICs code category for local resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry.[49] Under the SBA's size standard, such a business is small if it has 1,500 or fewer employees.[50] U.S. Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees.[51] Thus, under this category and the associated small business size standard, the majority of these resellers can be considered small entities. According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.[52] Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees.[53] Consequently, the Commission estimates that the majority of local resellers are small entities.

17. *Toll Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[54] According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.[55] Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees.[56] Consequently, the Commission estimates that the majority of toll resellers are small entities.

18. *Other Toll Carriers*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers

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[45] *Trends in Telephone Service*, tbl. 5.3.

[46] *See* 13 CFR § 121.201, NAICS code 517911.

[47] *See Trends in Telephone Service* at Table 5.3.

[48] *See id*.

[49] https://www.census.gov/cgi-in/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012.

[50] 13 CFR § 121.201, NAICS code 517911.

[51] U.S. Census Bureau, 2012 Economic Census, Subject Series: Information, "Establishment and Firm Size," NAICS code 517911.

[52] *See Trends in Telephone Service* at Table 5.3.

[53] *See id*.

[54] *See* 13 CFR § 121.201, NAICS code 517911.

[55] *See Trends in Telephone Service* at Table 5.3.

[56] *See id*.

that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[57] According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.[58] Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees.[59] Consequently, the Commission estimates that most Other Toll Carriers are small.

19. *800 and 800-Like Service Subscribers*.[60] Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (toll free) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[61] The most reliable source of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use.[62] According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,588,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736.[63] We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,860,000 or fewer small entity 800 subscribers; 5,588,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

4. Wireless Providers – Fixed and Mobile

20. The broadband Internet access service provider category covered by this Further Notice of Proposed Rulemaking may cover multiple wireless firms and categories of regulated wireless services. Thus, to the extent the wireless services listed below are used by wireless firms for broadband Internet access service, the proposed actions may have an impact on those small businesses as set forth above and further below. In addition, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility events, unjust enrichment issues are implicated.

21. *Wireless Telecommunications Carriers (except Satellite*). This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services.[64] The appropriate size standard under SBA rules is that such a business is small

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[57] *See* 13 CFR § 121.201, NAICS code 517311.

[58] *See Trends in Telephone Service* at Table 5.3.

[59] *See id*.

[60] We include all toll-free number subscribers in this category, including those for 888 numbers.

[61] *See* 13 CFR § 121.201, NAICS code 517911.

[62] *See Trends in Telephone Service* at Tables 18.7-18.10.

[63] *See id*.

[64] U.S. Census Bureau, 2012 NAICS Definitions, "517210 Wireless Telecommunications Carriers (Except Satellite)," *See* https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en./ECN.NAICS2012.517210.

if it has 1,500 or fewer employees.[65] For this industry, U.S. Census Bureau data for 2012 shows that there were 967 firms that operated for the entire year.[66] Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.[67] Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

22. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years.[68] The SBA has approved these small business size standards.[69] In the Commission's auction for geographic area licenses in the WCS there were seven winning bidders that qualified as "very small business" entities, and one that qualified as a "small business" entity.

23. *218-219 MHz Service.* The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a $6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than $2 million in annual profits each year for the previous two years.[70] In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we established a small business size standard for a "small business" as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed $15 million for the preceding three years.[71] A "very small business" is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not to exceed $3 million for the preceding three years.[72] These size standards will be used in future auctions of 218-219 MHz spectrum.

24. *2.3 GHz Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services ("WCS") auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years.[73] The SBA has approved these

[65] 13 CFR § 121.201, NAICS code 517210.

[66] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

[67] *Id*. Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[68] *Amendment of the Commission's Rules to Establish Part 27*, *the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

[69] *See* Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (Dec. 2, 1998) (*Alvarez Letter 1998*).

[70] *See generally Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

[71] *See generally Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999) (*218-219 MHz Report and Order and Memorandum Opinion and Order*).

[72] *See id*.

[73] *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

definitions.[74] The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

25. *1670–1675 MHz Services*. This service can be used for fixed and mobile uses, except aeronautical mobile.[75] An auction for one license in the 1670–1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

26. *Wireless Telephony*. Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite)[76] and the appropriate size standard for this category under the SBA rules is that such a business is small if it has 1,500 or fewer employees.[77] For this industry, U.S. Census Bureau data for 2012 shows that there were 967 firms that operated for the entire year.[78] Of this total, 955 firms had fewer than 1,000 employees and 12 firms has 1000 employees or more.[79] Thus under this category and the associated size standard, the Commission estimates that a majority of these entities can be considered small. According to Commission data, 413 carriers reported that they were engaged in wireless telephony.[80] Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.[81] Therefore, more than half of these entities can be considered small.

27. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a "small business" for C- and F-Block licenses as an entity that has average gross revenues of $40 million or less in the three previous calendar years.[82] For F-Block licenses, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[83] These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.[84] No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the

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[74] *See Alvarez Letter 1998*.

[75] 47 CFR § 2.106; *see generally* 47 CFR §§ 27.1-27.70.

[76] 13 CFR § 121.201, NAICS code 517210.

[77] *Id*.

[78] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

[79] *Id*. Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[80] *See* Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

[81] *Id*.

[82] *See Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission's Cellular/PCS Cross-Ownership Rule*; WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824, 7850-52, paras. 57-60 (1996) (*PCS Report and Order*); *see also* 47 CFR § 24.720(b).

[83] *See PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

[84] *See Alvarez Letter 1998*.

1,479 licenses in the first auction for the D, E, and F Blocks.[85] On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.[86] Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

28. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small business status.[87] Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.[88] On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.[89] Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.[90] On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78.[91] Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.[92]

29. *Specialized Mobile Radio Licenses.* The Commission awards "small entity" bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than $15 million in each of the three previous calendar years.[93] The Commission awards "very small entity" bidding credits to firms that had revenues of no more than $3 million in each of the three previous calendar years.[94] The SBA has approved these small business size standards for the 900 MHz Service.[95] The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the $15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the $15 million

[85] *See Broadband PCS, D, E and F Block Auction Closes*, Public Notice, Doc. No. 89838 (rel. Jan. 14, 1997).

[86] *See C, D, E, and F Block Broadband PCS Auction Closes*, Public Notice, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. *Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Fourth Report and Order, 13 FCC Rcd 15743, 15768, para. 46 (1998).

[87] *See C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 2339 (2001).

[88] *See Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58*, Public Notice, 20 FCC Rcd 3703 (2005).

[89] *See Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71*, Public Notice, 22 FCC Rcd 9247 (2007).

[90] *Id*.

[91] *See Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78*, Public Notice, 23 FCC Rcd 12749 (WTB 2008).

[92] *Id.*

[93] 47 CFR § 90.814(b)(1).

[94] *Id*.

[95] *See* Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (Aug. 10, 1999) (*Alvarez Letter 1999*).

size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.[96] A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.[97]

30. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the $15 million size standard.[98] In an auction completed in 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.[99] Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

31. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than $15 million. One firm has over $15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard.[100] We assume, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

32. *Lower 700 MHz Band Licenses*. The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.[101] The Commission defined a "small business" as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[102] A "very small business" is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[103] Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—"entrepreneur"—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years.[104] The SBA approved these small size standards.[105] An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur

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[96] *See Correction to Public Notice DA 96-586 "FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas*,*"* Public Notice, 18 FCC Rcd 18367 (WTB 1996).

[97] *See Multi-Radio Service Auction Closes*, Public Notice, 17 FCC Rcd 1446 (WTB 2002).

[98] *See 800 MHz Specialized Mobile Radio (SMR) Service General Category (851–854 MHz) and Upper Band (861–865 MHz) Auction Closes; Winning Bidders Announced*, Public Notice, 15 FCC Rcd 17162 (2000).

[99] *See 800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 1736 (2000).

[100] *See generally* 13 CFR § 121.201, NAICS code 517210.

[101] *See Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59)*, GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52–59 Report and Order*).

[102] *See id.* at 1087-88, para. 172.

[103] *See id*.

[104] *See id.* at 1088, para. 173.

[105] *See Alvarez Letter 1999*.

status and won a total of 329 licenses.[106] A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.[107] Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.[108] On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

33. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.[109] An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block.[110] Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years) won 49 licenses. Thirty three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years) won 325 licenses.

34. *Upper 700 MHz Band Licenses*. In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.[111] On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.[112] The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years) and winning five licenses.

35. *700 MHz Guard Band Licensees*. In 2000, in the 700 MHz Guard Band Order, the Commission adopted size standards for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[113] A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[114] Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross

[106] *See Lower 700 MHz Band Auction Closes*, Public Notice, 17 FCC Rcd 17272 (WTB 2002).

[107] *See id.*

[108] *See id.*

[109] *Service Rules for the 698–746, 747–762 and 777–792 MHz Band; Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones; Biennial Regulatory Review—Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010; Declaratory Ruling on Reporting Requirement under Commission's Part 1 Anti-Collusion Rule*, WT Docket Nos. 07-166, 06-169, 06-150, 03-264, 96-86, PS Docket No. 06-229, CC Docket No. 94-102, Second Report and Order, 22 FCC Rcd 15289, 15359 n. 434 (2007) (*700 MHz Second Report and Order*).

[110] *See Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

[111] *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

[112] *See Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

[113] *See Service Rules for the 746–764 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000) (*746–764 MHz Band Second Report and Order*).

[114] *See id.* at 5343, para. 108.

revenues that are not more than $15 million for the preceding three years.[115] SBA approval of these definitions is not required.[116] An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000.[117] Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.[118]

36. *Cellular Radiotelephone Service.* Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico.[119] Bidding credits for designated entities were not available in Auction 77.[120] In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling $25,002.[121]

37. *Private Land Mobile Radio ("PLMR").* PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee's primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons.[122] The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.[123]

38. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

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[115] *See id.*

[116] *See id.* at 5343, para. 108 n.246 (for the 746–764 MHz and 776–794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

[117] *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 15 FCC Rcd 18026 (WTB 2000).

[118] *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 16 FCC Rcd 4590 (WTB 2001).

[119] *See Closed Auction of Licenses for Cellular Unserved Service Area Scheduled for June 17, 2008, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 77*, Public Notice, 23 FCC Rcd 6670 (WTB 2008).

[120] *Id*. at 6685.

[121] *See Auction of Cellular Unserved Service Area License Closes, Winning Bidder Announced for Auction 77, Down Payment due July 2, 2008, Final Payment due July 17, 2008*, Public Notice, 23 FCC Rcd 9501 (WTB 2008).

[122] *See* 13 CFR § 121.201, NAICS code 517210.

[123] *See generally* 13 CFR § 121.201.

39. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.[124] A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS).[125] In the present context, we will use the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.[126] There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

40. *Air-Ground Radiotelephone Service*. The Commission has previously used the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), which is an entity employing no more than 1,500 persons.[127] For this industry, U.S. Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees and 12 had employment of 1000 employees or more.[128] There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $40 million.[129] A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $15 million.[130] These definitions were approved by the SBA.[131] In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

41. *Aviation and Marine Radio Services.* Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.[132] U.S.

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[124] The service is defined in 47 CFR § 22.99.

[125] BETRS is defined in 47 CFR §§ 22.757 and 22.759.

[126] 13 CFR § 121.201, NAICS code 517210.

[127] 13 CFR § 121.201, NAICS codes 517210.

[128] *Id*. Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[129] *Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services*, *Biennial Regulatory Review—Amendment of Parts 1*, *22*, *and 90 of the Commission's Rules*, *Amendment of Parts 1 and 22 of the Commission's Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service*, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, paras. 28-42 (2005).

[130] *Id*.

[131] *See* Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, Federal Communications Commission (Sept. 19, 2005).

[132] *See* 13 CFR § 121.201, NAICS code 517210.

Census Bureau data for 2012 shows that there were 967 firms that operated for the entire year.[133] Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.[134] Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a "small" business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars.[135] In addition, a "very small" business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.[136] There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as "small" businesses under the above special small business size standards.

42. Advanced Wireless Services (AWS) (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)). For the AWS-1 bands,[137] the Commission has defined a "small business" as an entity with average annual gross revenues for the preceding three years not exceeding \$40 million, and a "very small business" as an entity with average annual gross revenues for the preceding three years not exceeding \$15 million. For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.[138]

43. *3650–3700 MHz band*. In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (i.e., 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered.

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[133] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

[134] *Id*. Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[135] *See generally Amendment of the Commission's Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853, 19884–88 paras. 64–73 (1998).

[136] *See id*.

[137] The service is defined in section 90.1301 *et seq*. of the Commission's Rules, 47 CFR § 90.1301 *et seq*.

[138] *See Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Report and Order, 18 FCC Rcd 25162, Appx. B (2003), *modified by Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Order on Reconsideration, 20 FCC Rcd 14058, Appx. C (2005); *Service Rules for Advanced Wireless Services in the 1915–1920 MHz*, *1995–2000 MHz*, *2020–2025 MHz and 2175–2180 MHz Bands; Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket Nos. 04-356, 02-353, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, Appx. B (2005); *Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band*, WT Docket No. 07-195, Notice of Proposed Rulemaking, 22 FCC Rcd 17035, Appx. (2007).

The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

44. *Fixed Microwave Services.* Microwave services include common carrier,[139] private-operational fixed,[140] and broadcast auxiliary radio services.[141] They also include the Local Multipoint Distribution Service (LMDS),[142] the Digital Electronic Message Service (DEMS),[143] and the 24 GHz Service,[144] where licensees can choose between common carrier and non-common carrier status.[145] At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 135 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite) and the appropriate size standard for this category under SBA rules is that such a business is small if it has 1,500 or fewer employees.[146] For this industry, U.S. Census data for 2012 show that there were 967 firms that operated for the entire year.[147] Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.[148] Thus under this SBA category and the associated size standard, the Commission estimates that a majority of fixed microwave service licensees can be considered small.

45. The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 36,708 common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category does include some large entities.

46. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.[149] The closest applicable SBA size standard is for Wireless Telecommunications

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[139] *See* 47 CFR Part 101, Subparts C and I.

[140] *See* 47 CFR Part 101, Subparts C and H.

[141] Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. *See* 47 CFR Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

[142] *See* 47 CFR Part 101, Subpart L.

[143] *See* 47 CFR Part 101, Subpart G.

[144] *See id*.

[145] *See* 47 CFR §§ 101.533, 101.1017.

[146] *See* 13 CFR § 121.201, NAICS code 517210.

[147] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series, "Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210" (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

[148] *Id*. Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[149] This service is governed by Subpart I of Part 22 of the Commission's Rules. *See* 47 CFR §§ 22.1001-22.1037.

Carriers (except Satellite), which is an entity employing no more than 1,500 persons.[150] U.S. Census Bureau data in this industry for 2012 show that there were 967 firms that operated for the entire year.[151] Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.[152] Thus, under this SBA category and the associated small business size standard, the majority of Offshore Radiotelephone Service firms can be considered small. There are presently approximately 55 licensees in this service. However, the Commission is unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for the category of Wireless Telecommunications Carriers (except Satellite).

47. *39 GHz Service.* The Commission created a special small business size standard for 39 GHz licenses—an entity that has average gross revenues of $40 million or less in the three previous calendar years.[153] An additional size standard for "very small business" is: an entity that, together with affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[154] The SBA has approved these small business size standards.[155] The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by rules adopted pursuant to the Report and Order.

48. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and "wireless cable," transmit video programming to subscribers and provide two-way high-speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).[156]

49. *BRS* - In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than $40 million in the previous three calendar years.[157] The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 86 incumbent BRS licensees that are considered small entities (18 incumbent BRS licensees do not meet the

[150] 13 CFR § 121.201, NAICS codes 517210.

[151] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~5172100.

[152] *Id*. Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[153] *See Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, PP Docket No. 93-253, Report and Order, 12 FCC Rcd 18600, 18661–64, paras. 149–151 (1997).

[154] *See id.*

[155] *See* Letter to Kathleen O'Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

[156] *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

[157] 47 CFR § 21.961(b)(1).

small business size standard).[158] After adding the number of small business auction licensees to the number of incumbent licensees not already counted, there are currently approximately 133 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules.

50. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.[159] The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed $3 million and do not exceed $15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed $3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.[160] Auction 86 concluded in 2009 with the sale of 61 licenses.[161] Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

51. *EBS* - Educational Broadband Service has been included within the broad economic census category and SBA size standard for Wired Telecommunications Carriers since 2007. Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."[162] The SBA's small business size standard for this category is all such firms having 1,500 or fewer employees.[163] U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.[164] Of this total, 3,083 operated with fewer than 1,000 employees.[165] Thus, under this size standard, the majority of firms in this industry can be considered small. In addition to Census data, the Commission's Universal Licensing System indicates that as of October 2014, there are 2,206 active EBS licenses. The

[158] 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard of 1500 or fewer employees.

[159] *Auction of Broadband Radio Service (BRS) Licenses*, *Scheduled for October 27*, *2009*, *Notice and Filing Requirements*, *Minimum Opening Bids*, *Upfront Payments*, *and Other Procedures for Auction 86*, Public Notice, 24 FCC Rcd 8277 (2009).

[160] *Id*. at 8296, para. 73.

[161] *Auction of Broadband Radio Service Licenses Closes*, *Winning Bidders Announced for Auction 86*, *Down Payments Due November 23*, *2009*, *Final Payments Due December 8*, *2009*, *Ten-Day Petition to Deny Period*, Public Notice, 24 FCC Rcd 13572 (2009).

[162] U.S. Census Bureau, 2017 NAICS Definitions, "517311 Wired Telecommunications Carriers," (partial definition), http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017.

[163] *See,* 13 CFR § 121.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition shows the NAICs code as 517311 for Wired Telecommunications Carriers. *See*, https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017.

[164] *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[165] *Id.*

Commission estimates that of these 2,206 licenses, the majority are held by non-profit educational institutions and school districts, which are by statute defined as small businesses.[166]

52. *Narrowband Personal Communications Services*. Two auctions of narrowband personal communications services (PCS) licenses have been conducted. To ensure meaningful participation of small business entities in future auctions, the Commission has adopted a two-tiered small business size standard in the Narrowband PCS Second Report and Order. Through these auctions, the Commission has awarded a total of 41 licenses, out of which 11 were obtained by small businesses.[167] A "small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $40 million. A "very small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $15 million. The SBA has approved these small business size standards.[168]

53. *Paging (Private and Common Carrier)*. In the *Paging Third Report and Order*, the Commission developed a small business size standard for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[169] A "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years. Additionally, a "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years. The SBA has approved these small business size standards.[170] According to Commission data, 291 carriers have reported that they are engaged in Paging or Messaging Service.[171] Of these, an estimated 289 have 1,500 or fewer employees, and two have more than 1,500 employees.[172] Consequently, the Commission estimates that the majority of paging providers are small entities that may be affected by our action. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold. Fifty-seven companies claiming small business status won 440 licenses.[173] A subsequent auction of MEA and Economic Area ("EA") licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.[174] One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.[175] A fourth auction, consisting of 9,603 lower and

[166] The term "small entity" within SBREFA applies to small organizations (non-profits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6).

[167] *Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS*, GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253, Second Report and Order and Second Further Notice of Proposed Rulemaking, 15 FCC Rcd 10456 (2000).

[168] *See* Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (Dec. 2, 1998) (*Alvarez Letter 1998*).

[169] *See Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems*, WT Docket No. 96-18, PR Docket No. 93-253, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085–88, paras. 98–107 (1999) (*Paging Third Report and Order*)

[170] *See Alvarez Letter 1998*.

[171] *See Trends in Telephone Service* at Table 5.3.

[172] *See id*.

[173] *See id.*

[174] *See Lower and Upper Paging Band Auction Closes*, Public Notice, 16 FCC Rcd 21821 (WTB 2002).

[175] *See Lower and Upper Paging Bands Auction Closes*, Public Notice, 18 FCC Rcd 11154 (WTB 2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary

upper paging band licenses was held in the year 2010. Twenty-nine bidders claiming small or very small business status won 3,016 licenses.[176]

54. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). Under this category, the SBA deems a wireless business to be small if it has 1,500 or fewer employees.[177] The Commission estimates that nearly all such licensees are small businesses under the SBA's small business size standard.

55. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, the Commission adopted a small business size standard for "small" and "very small" businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[178] This small business size standard indicates that a "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[179] A "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed $3 million for the preceding three years.[180] The SBA has approved these small business size standards.[181] Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.[182] In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.[183]

5. Satellite Service Providers

56. *Satellite Telecommunications Providers.* This category comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications."[184] Satellite telecommunications service providers include satellite

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market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

[176] *See Auction of Lower and Upper Paging Bands Licenses Closes*, Public Notice, 25 FCC Rcd 18164 (WTB 2010).

[177] *See* 13 CFR § 121.201, NAICS code 517210.

[178] *See Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068–70, paras. 291–295 (1997) (*220 MHz Third Report and Order*).

[179] *See id*. at 11068–69, para. 291.

[180] *See id*. at 11068–70, paras. 291–95.

[181] *See* Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998) (*Alvarez to Phythyon Letter 1998*).

[182] *See Phase II 220 MHz Service Auction Closes*, Public Notice, 14 FCC Rcd 605 (WTB 1998).

[183] *See Phase II 220 MHz Service Spectrum Auction Closes*, Public Notice, 14 FCC Rcd 11218 (WTB 1999).

[184] U.S. Census Bureau, 2017 NAICS Definitions, "517410 Satellite Telecommunications"; https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517410&search=2017+NAICS+Search&search=2017.

and earth station operators. The category has a small business size standard of $32.5 million or less in average annual receipts, under SBA rules.[185] For this category, U.S. Census Bureau data for 2012 shows that there were a total of 333 firms that operated for the entire year.[186] Of this total, 299 firms had annual receipts of less than $25 million.[187] Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

57. Because section 706 requires us to monitor the deployment of broadband using any technology, we anticipate that some broadband service providers may not provide telephone service. Accordingly, we describe below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

58. *Cable and Other Subscription Programming.* This industry comprises establishments primarily engaged in operating studios and facilities for the broadcasting of programs on a subscription or fee basis. The broadcast programming is typically narrowcast in nature (e.g., limited format, such as news, sports, education, or youth-oriented). These establishments produce programming in their own facilities or acquire programming from external sources. The programming material is usually delivered to a third party, such as cable systems or direct-to-home satellite systems, for transmission to viewers.[188] The SBA size standard for this industry establishes as small, any company in this category which has annual receipts of $38.5 million or less.[189] According to 2012 U.S. Census Bureau data, 367 firms operated for the entire year.[190] Of that number, 319 operated with annual receipts of less than $25 million a year and 48 firms operated with annual receipts of $25 million or more.[191] Based on this data, the Commission estimates that the majority of firms operating in this industry are small.

59. *Cable Companies and Systems (Rate Regulation).* The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers nationwide.[192] Industry data indicate that there are currently 4,600 active cable systems in the United States.[193] Of this total, all but nine cable operators nationwide are small under the 400,000-subscriber size standard.[194] In addition, under the Commission's rate regulation rules, a "small system" is a cable system serving 15,000 or fewer

[185] 13 CFR § 121.201, NAICS code 517410.

[186] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ4, Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the United States: 2012, NAICS code 517410 https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ4//naics~517410.

[187] *Id*.

[188] S*ee* U.S. Census Bureau, 2012 NAICS Definitions, "515210 Cable and other Subscription Programming", *https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en./ECN.NAICS2012.515210#.*

[189] *See* 13 CFR 121.201, NAICS Code 515210.

[190] *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ4, Information: Subject Series - Estab & Firm Size: Receipts Size of Firms for the U.S.: 2012, NAICS Code 515210, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ4//naics~515210.

[191] *Id*. Available census data does not provide a more precise estimate of the number of firms that have receipts of $38.5 million or less.

[192] 47 CFR § 76.901(e).

[193] The number of active, registered cable systems comes from the Commission's Cable Operations and Licensing System (COALS) database on August 15, 2015. *See* FCC, *Cable Operations and Licensing System (COALS)*, www.fcc.gov/coals (last visited Oct. 25, 2016).

[194] *See* SNL KAGAN, *Top Cable MSOs*, https://www.snl.com/Interactivex/TopCableMSOs.aspx (last visited Oct. 25, 2016).

subscribers.[195] Current Commission records show 4,600 cable systems nationwide.[196] Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers, based on the same records.[197] Thus, under this standard as well, we estimate that most cable systems are small entities.

60. *Cable System Operators (Telecom Act Standard).* The Communications Act of 1934, as amended also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000."[198] There are approximately 52,403,705 cable video subscribers in the United States today.[199] Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed $250 million in the aggregate.[200] Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.[201] We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed $250 million.[202] Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed $250 million, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

61. The open video system ("OVS") framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.[203] The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,[204] OVS falls within the SBA small business size standard covering cable services, which is "Wired Telecommunications Carriers."[205] The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees.[206] U.S. Census Bureau data for 2012 show that there were 3,117

[195] 47 CFR § 76.901(c).

[196] *See March 31, 2013 Broadcast Station Totals Press Release.*

[197] *See* FCC, *Cable Operations and Licensing System (COALS)*, www.fcc.gov/coals (last visited Oct. 25, 2016).

[198] 47 CFR § 76.90(f) and notes ff. 1, 2, and 3.

[199] *See* SNL KAGAN at http://www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx.

[200] 47 CFR § 76.901(f) and notes ff. 1, 2, and 3.

[201] *See* SNL KAGAN at http://www.snl.com/interactivex/TopCable MSOs.aspx.

[202] The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission's rules. *See* 47 CFR § 76.901(f).

[203] 47 U.S.C. § 571(a)(3)-(4). *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 06-189, Thirteenth Annual Report, 24 FCC Rcd 542, 606, para. 135 (2009) (*Thirteenth Annual Cable Competition Report*).

[204] *See* 47 U.S.C. § 573.

[205] U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers"; http://www.census.gov/naics/2007/def/ND517110.HTM#N517110.

[206] *Id*.

firms that operated that year.[207] Of this total, 3,083 operated with fewer than 1,000 employees.[208] Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the Order. In addition, we note that the Commission has certified some OVS operators, with some now providing service.[209] Broadband service providers ("BSPs") are currently the only significant holders of OVS certifications or local OVS franchises.[210] The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

6. Electric Power Generators, Transmitters, and Distributors

62. *Electric Power Generators*, *Transmitters*, *and Distributors.* This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.[211] The closest applicable SBA category is "All Other Telecommunications". The SBA's small business size standard for "All Other Telecommunications," consists of all such firms with gross annual receipts of $32.5 million or less.[212] For this category, U.S. Census data for 2012 show that there were 1,442 firms that operated for the entire year. Of these firms, a total of 1,400 had gross annual receipts of less than $25 million.[213] Consequently, we estimate that under this category and the associated size standard the majority of these firms can be considered small entities.

D. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

63. In the FNPRM, we seek comment on what the deployment obligations should be for areas subject to competitive bidding in terms of what locations should be served and at what minimum speeds. We also seek comment on whether additional measures are needed to address the increase in the demand for high-cost USF that results from lines converting from voice or voice/broadband to broadband-only. We also seek comment on additional support for legacy carriers serving Tribal areas and accompanying obligations.

E. Steps Taken to Minimize the Significant Economic Impact on Small Entities and Significant Alternatives Considered

64. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into

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[207] *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[208] *Id.*

[209] A list of OVS certifications may be found at http://www.fcc.gov/mb/ovs/csovscer.html.

[210] *See Thirteenth Annual Cable Competition Report*, 24 FCC Rcd at 606-07 para. 135. BSPs are newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

[211] http://www.census.gov/cgi-bin/ssssd/naics/naicsrch.

[212] 13 CFR § 121.201; NAICS Code 517919.

[213] http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ4&prodType=table.

account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[214] We expect to consider all of these factors when we have received substantive comment from the public and potentially affected entities.

65. In the Report and Order, we adopt changes whereby support in certain legacy areas will be awarded through competitive bidding. In the FNPRM, we seek comment on several auction related issues. The questions we ask, in part, aim to reduce economic impacts on the incumbent LECs and help with the overall efficiency of the competitive bidding process. Furthermore, in seeking comment whether the Commission should adopt limits on the number of converted lines for which a carrier may seek broadband-only support, we ask about ways to minimize the impact on carriers. We also seek comment on additional support for legacy carriers serving Tribal areas, accompanying obligations, and possibly targeting Tribal areas with lower levels of deployment.

66. More generally, the Commission expects to consider the economic impact on small entities, as identified in comments filed in response to the FNPRM and this IRFA, in reaching its final conclusions and taking action in this proceeding. The proposals and questions laid out in the FNPRM were designed to ensure the Commission has a complete understanding of the benefits and potential burdens associated with the different actions and methods.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

67. None

[214] 5 U.S.C. § 603(c).

APPENDIX C

Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980 (RFA),[645] as amended, an Initial Regulatory Flexibility Analysis (IRFAs) was incorporated in the *2018 Rate-of-Return Reform Order and NPRM*.[646] The Commission sought written public comment on the proposals in the *2018 Rate-of-Return Reform NPRM*, including comment on the IRFA. The Commission did not receive comments on the *2018 Rate-of-Return Reform Order and NPRM IRFA*. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[647]

A. Need for, and Objectives of, the Report and Order

2. In the Report and Order, we adopt further changes to universal service support mechanisms for rate-of-return carriers to spur broadband deployment to consumers in rural America, promote efficiency, and deter waste, fraud, and abuse. We authorize an offer of up to $200 per location for carriers currently on A-CAM support with revised deployment obligations, and we authorize a new A-CAM offer of up to $200 per location for current legacy carriers (those carriers receive HCLS and/or CAF BLS). We then create a separate budget for carriers that remain on legacy support and set that budget at 2018 unconstrained claims, which will be annually adjusted based on an inflationary factor. We also set a minimum threshold of support for legacy carriers equal to the five-year projection for CAF BLS. We eliminate the per-line reduction that is part of the budget control mechanism, which will make legacy support amounts more predictable and make the budget control mechanism less burdensome administratively. We eliminate the capital investment allowance, which has been deterring economically efficient investments and was administratively overburdensome for the carriers. To further our efforts in eliminating waste, fraud, and abuse, we reduce the per-line, per-month cap of legacy support from $250 to $225 and then to $200. We modify a reporting deadline related to line counts so that we are using more recent data in determining carriers subject to the per-line, per-month cap. We also make line count filings required for all rate-of-return carriers, which provides data we need to effectively monitor our high-cost program while minimally burdening the carriers. We amend the Uniform System of Accounts (USOA) contained in Part 32 of the Commission's rules to incorporate new lease accounting standards adopted by the Financial Accounting Standards Board (FASB). Amending the USOA eliminates the need for incumbent local exchange carriers (LECs) subject to Part 32 to maintain two methods of accounting for leases. We update deployment obligations consistent with the reset budget and rules changes adopted in the Report and Order. We adopt changes whereby support in certain legacy areas will be awarded through competitive bidding. Finally, to make sure that consumers in rural areas have access to broadband consistent with demand and what services available in urban areas, we generally make 25/3 Mbps the minimum obligations for legacy support.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA

3. There were no comments raised that specifically addressed the proposed rules and policies presented in the *2018 Rate-of-Return Reform Order and NPRM IRFA*. Nonetheless, the Commission considered the potential impact of the rules proposed in the IRFA on small entities and

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[645] 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612 has been amended by the Contract With America Advancement Act of 1996, Public Law No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[646] *See Connect America Fund et al.*, WC Docket No. 10-90 et al., Report and Order, Third Order on Reconsideration, and Notice of Proposed Rulemaking, FCC 18-29, at Appendix C (rel. Mar. 23, 2018) (*2018 Rate-of-Return Reform Order and NPRM IRFA*).

[647] *See* 5 U.S.C. § 604.

generally reduced the compliance burden for all small entities to reduce the economic impact of the rules enacted herein on such entities.

C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

4. Pursuant to the Small Business Jobs Act of 2010,[648] which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rule(s) as a result of those comments.

5. The Chief Counsel did not file any comments in response to the proposed rule(s) in this proceeding.

D. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

6. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[649] The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[650] In addition, the term "small business" has the same meaning as the term "small-business concern" under the Small Business Act.[651] A small-business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[652]

1. Total Small Entities

7. *Small Businesses, Small Organizations, Small Governmental Jurisdictions*. Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe here, at the outset, three broad groups of small entities that could be directly affected herein.[653] First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the SBA's Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.[654] These types of small businesses represent 99.9 percent of all businesses in the United States which translates to 28.8 million businesses.[655]

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[648] 5 U.S.C. § 604(a)(3).

[649] *See* 5 U.S.C. § 603(b)(3).

[650] *See* 5 U.S.C. § 601(6).

[651] *See* 5 U.S.C. § 601(3) (incorporating by reference the definition of "small-business concern" in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

[652] *See* 15 U.S.C. § 632.

[653] *See* 5 U.S.C. § 601(3)-(6).

[654] *See* SBA, Office of Advocacy, "Frequently Asked Questions, Question 1 – What is a small business?" https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016)

[655] *See* SBA, Office of Advocacy, "Frequently Asked Questions, Question 2- How many small business are there in the U.S.?" https://www.sba.gov/sites/default/files/advocacy/SB-FAQ-2016_WEB.pdf (June 2016).

8. Next, the type of small entity described as a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."[656] Nationwide, as of Aug 2016, there were approximately 356,494 small organizations based on registration and tax data filed by nonprofits with the Internal Revenue Service (IRS).[657]

9. Finally, the small entity described as a "small governmental jurisdiction" is defined generally as "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand."[658] U.S. Census Bureau data from the 2012 Census of Governments[659] indicates that there were 90,056 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.[660] Of this number there were 37, 132 General purpose governments (county[661], municipal and town or township[662]) with populations of less than 50,000 and 12,184 Special purpose governments (independent school districts[663] and special districts[664]) with populations of less than 50,000. The 2012 U.S. Census Bureau data for most types of governments in the local government category shows that the majority of these governments have populations of less than 50,000.[665] Based on this data we estimate that at least 49,316 local government jurisdictions fall in the category of "small governmental jurisdictions."[666]

2. Broadband Internet Access Service Providers

10. *Internet Service Providers (Broadband).* Broadband Internet service providers include wired (e.g., cable, DSL) and VoIP service providers using their own operated wired telecommunications infrastructure fall in the category of Wired Telecommunication Carriers.[667] Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies.[668] The SBA size standard for this category

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[656] 5 U.S.C. § 601(4).

[657] Data from the Urban Institute, National Center for Charitable Statistics (NCCS) reporting on nonprofit organizations registered with the IRS was used to estimate the number of small organizations. Reports generated using the NCCS online database indicated that as of August 2016 there were 356,494 registered nonprofits with total revenues of less than $100,000. Of this number, 326,897 entities filed tax returns with 65,113 registered nonprofits reporting total revenues of $50,000 or less on the IRS Form 990-N for Small Exempt Organizations and 261,784 nonprofits reporting total revenues of $100,000 or less on some other version of the IRS Form 990 within 24 months of the August 2016 data release date. *See* http://nccs.urban.org/sites/all/nccs-archive/html//tablewiz/tw.php where the report showing this data can be generated by selecting the following data fields: Report: "The Number and Finances of All Registered 501(c) Nonprofits"; Show: "Registered Nonprofits"; By: "Total Revenue Level (years 1995, Aug to 2016, Aug)"; and For: "2016, Aug" then selecting "Show Results".

[658] 5 U.S.C. § 601(5).

[659] *See* 13 U.S.C. § 161. The Census of Government is conducted every five (5) years compiling data for years ending with "2" and "7". *See also* Program Description Census of Government *https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=program&id=program.en.COG#*.

[660] *See* U.S. Census Bureau, 2012 Census of Governments, Local Governments by Type and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG02.US01. Local governmental jurisdictions are classified in two categories - General purpose governments (county, municipal and town or township) and Special purpose governments (special districts and independent school districts).

[661] *See* U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01. There were 2,114 county governments with populations less than 50,000.

classifies a business as small if it has 1,500 or fewer employees.[669] U.S. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees.[670] Consequently, under this size standard the majority of firms in this industry can be considered small.

3. Wireline Providers

11. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as "establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry."[671] The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees.[672] U.S. Census Bureau data for 2012 shows that there were 3,117 firms that operated that year.[673] Of this total, 3,083 operated with fewer than 1,000 employees.[674] Thus, under this size standard, the majority of firms in this industry can be considered small.

12. *Incumbent Local Exchange Carriers* (*Incumbent LECs*). Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent LEC services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[675] According to Commission data,[676] 1,307 carriers reported that they were incumbent LEC providers.[677] Of these 1,307 carriers, an estimated 1,006 have 1,500 or fewer employees and 301 have more than 1,500 employees.[678]

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662 *See* U.S. Census Bureau, 2012 Census of Governments, Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States – States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01. There were 18,811 municipal and 16,207 town and township governments with populations less than 50,000.

663 *See* U.S. Census Bureau, 2012 Census of Governments, Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01. There were 12,184 independent school districts with enrollment populations less than 50,000.

664 *See* U.S. Census Bureau, 2012 Census of Governments, Special District Governments by Function and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG09.US01. The U.S. Census Bureau data did not provide a population breakout for special district governments.

665 *See* U.S. Census Bureau, 2012 Census of Governments, County Governments by Population-Size Group and State: 2012 - United States-States - https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG06.US01; Subcounty General-Purpose Governments by Population-Size Group and State: 2012 - United States–States - https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG07.US01; and Elementary and Secondary School Systems by Enrollment-Size Group and State: 2012 - United States-States. https://factfinder.census.gov/bkmk/table/1.0/en/COG/2012/ORG11.US01. While U.S. Census Bureau data did not provide a population breakout for special district governments, if the population of less than 50,000 for this category of local government is consistent with the other types of local governments the majority of the 38, 266 special district governments have populations of less than 50,000.

666 *Id.*

Consequently, the Commission estimates that most providers of incumbent LEC service are small businesses.

13. Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers. Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[679] According to Commission data, 1,442 carriers reported that they were engaged in the provision of either competitive local exchange services or competitive access provider services.[680] Of these 1,442 carriers, an estimated 1,256 have 1,500 or fewer employees and 186 have more than 1,500 employees.[681] In addition, 17 carriers have reported that they are Shared-Tenant Service Providers, and all 17 are estimated to have 1,500 or fewer employees.[682] In addition, 72 carriers have reported that they are Other Local Service Providers.[683] Of the 72, seventy have 1,500 or fewer employees and two have more than 1,500 employees.[684] Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, Shared-Tenant Service Providers, and other local service providers are small entities.

14. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (e.g., a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[685] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not "national" in scope.[686] We have therefore included small incumbent LECs in this RFA analysis, although we

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[667] *See*, 13 CFR § 121.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition show the NAICs code as 517311. *See*, https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017

[668] *Id.*

[669] *Id.*

[670] http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ2&prodType=table.

[671] *See* 13 CFR § 120.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition shows the NAICS code as 517311 for Wired Telecommunications Carriers. *See*, https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017.

[672] *Id*.

[673] *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[674] *Id.*

[675] 13 CFR § 121.201, NAICS code 517311.

[676] Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, *Trends in Telephone Service*, tbl. 5.3 (Sept. 2010) (*Trends in Telephone Service*).

[677] *See Trends in Telephone Service* at tbl. 5.3.

[678] *See id*.

[679] 13 CFR § 121.201, NAICS code 517311.

[680] *See Trends in Telephone Service* at tbl.5.3.

emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

15. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[687] According to Commission data,[688] 359 carriers have reported that they are engaged in the provision of interexchange service. Of these, an estimated 317 have 1,500 or fewer employees and 42 have more than 1,500 employees. Consequently, the Commission estimates that the majority of IXCs are small entities.

16. *Operator Service Providers* (*OSPs*). Neither the Commission nor the SBA has developed a small business size standard specifically for operator service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[689] According to Commission data, 33 carriers have reported that they are engaged in the provision of operator services. Of these, an estimated 31 have 1,500 or fewer employees and two have more than 1,500 employees.[690] Consequently, the Commission estimates that the majority of OSPs are small entities.

17. *Prepaid Calling Card Providers*. Neither the Commission nor the SBA has developed a small business size standard specifically for prepaid calling card providers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[691] According to Commission data, 193 carriers have reported that they are engaged in the provision of prepaid calling cards.[692] Of these, an estimated all 193 have 1,500 or fewer employees and none have more than 1,500 employees.[693] Consequently, the Commission estimates that the majority of prepaid calling card providers are small entities.

18. *Local Resellers.* The SBA has not developed a small business size standard specifically for Local Resellers. The SBA category of Telecommunications Resellers is the closest NAICs code category for local resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications

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[681] *See id.*

[682] *See id*.

[683] *See id*.

[684] *See id*.

[685] 5 U.S.C. § 601(3).

[686] Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, Federal Communications Commission (May 27, 1999). The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." 15 U.S.C. § 632(a); 5 U.S.C. § 601(3). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 CFR § 121.102(b).

[687] 13 CFR § 121.201, NAICS code 517311.

[688] *Trends in Telephone Service*, tbl. 5.3.

[689] 13 CFR § 121.201, NAICS code 517311.

[690] *Trends in Telephone Service*, tbl. 5.3.

[691] *See* 13 CFR § 121.201, NAICS code 517911.

[692] *See Trends in Telephone Service* at Table 5.3.

[693] *See id*.

networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry.[694] Under the SBA's size standard, such a business is small if it has 1,500 or fewer employees.[695] U.S. Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees.[696] Thus, under this category and the associated small business size standard, the majority of these resellers can be considered small entities. According to Commission data, 213 carriers have reported that they are engaged in the provision of local resale services.[697] Of these, an estimated 211 have 1,500 or fewer employees and two have more than 1,500 employees.[698] Consequently, the Commission estimates that the majority of local resellers are small entities.

19. *Toll Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[699] According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services.[700] Of these, an estimated 857 have 1,500 or fewer employees and 24 have more than 1,500 employees.[701] Consequently, the Commission estimates that the majority of toll resellers are small entities.

20. *Other Toll Carriers*. Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to Other Toll Carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[702] According to Commission data, 284 companies reported that their primary telecommunications service activity was the provision of other toll carriage.[703] Of these, an estimated 279 have 1,500 or fewer employees and five have more than 1,500 employees.[704] Consequently, the Commission estimates that most Other Toll Carriers are small.

21. *800 and 800-Like Service Subscribers*.[705] Neither the Commission nor the SBA has developed a small business size standard specifically for 800 and 800-like service (toll free) subscribers. The appropriate size standard under SBA rules is for the category Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[706] The most reliable source

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[694] https://www.census.gov/cgi-in/sssd/naics/naicsrch?input=517911&search=2012+NAICS+Search&search=2012.

[695] 13 CFR § 121.201, NAICS code 517911.

[696] U.S. Census Bureau, 2012 Economic Census, Subject Series: Information, "Establishment and Firm Size," NAICS code 517911.

[697] *See Trends in Telephone Service* at Table 5.3.

[698] *See id*.

[699] *See* 13 CFR § 121.201, NAICS code 517911.

[700] *See Trends in Telephone Service* at Table 5.3.

[701] *See id*.

[702] *See* 13 CFR § 121.201, NAICS code 517311.

[703] *See Trends in Telephone Service* at Table 5.3.

[704] *See id*.

[705] We include all toll-free number subscribers in this category, including those for 888 numbers.

[706] *See* 13 CFR § 121.201, NAICS code 517911.

of information regarding the number of these service subscribers appears to be data the Commission collects on the 800, 888, 877, and 866 numbers in use.[707] According to our data, as of September 2009, the number of 800 numbers assigned was 7,860,000; the number of 888 numbers assigned was 5,588,687; the number of 877 numbers assigned was 4,721,866; and the number of 866 numbers assigned was 7,867,736.[708] We do not have data specifying the number of these subscribers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll free subscribers that would qualify as small businesses under the SBA size standard. Consequently, we estimate that there are 7,860,000 or fewer small entity 800 subscribers; 5,588,687 or fewer small entity 888 subscribers; 4,721,866 or fewer small entity 877 subscribers; and 7,867,736 or fewer small entity 866 subscribers.

4. Wireless Providers – Fixed and Mobile

22. The broadband Internet access service provider category covered by this Report and Order may cover multiple wireless firms and categories of regulated wireless services. Thus, to the extent the wireless services listed below are used by wireless firms for broadband Internet access service, the proposed actions may have an impact on those small businesses as set forth above and further below. In addition, for those services subject to auctions, we note that, as a general matter, the number of winning bidders that claim to qualify as small businesses at the close of an auction does not necessarily represent the number of small businesses currently in service. Also, the Commission does not generally track subsequent business size unless, in the context of assignments and transfers or reportable eligibility events, unjust enrichment issues are implicated.

23. *Wireless Telecommunications Carriers (except Satellite*). This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide communications via the airwaves. Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless internet access, and wireless video services.[709] The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.[710] For this industry, U.S. Census Bureau data for 2012 shows that there were 967 firms that operated for the entire year.[711] Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.[712] Thus under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities.

24. *Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services (WCS) auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross

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[707] *See Trends in Telephone Service* at Tables 18.7-18.10.

[708] *See id*.

[709] U.S. Census Bureau, 2012 NAICS Definitions, "517210 Wireless Telecommunications Carriers (Except Satellite)," *See* https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en./ECN.NAICS2012.517210.

[710] 13 CFR § 121.201, NAICS code 517210.

[711] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

[712] *Id*. Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

revenues of $15 million for each of the three preceding years.[713] The SBA has approved these small business size standards.[714] In the Commission's auction for geographic area licenses in the WCS there were seven winning bidders that qualified as "very small business" entities, and one that qualified as a "small business" entity.

25. *218-219 MHz Service.* The first auction of 218-219 MHz spectrum resulted in 170 entities winning licenses for 594 Metropolitan Statistical Area (MSA) licenses. Of the 594 licenses, 557 were won by entities qualifying as a small business. For that auction, the small business size standard was an entity that, together with its affiliates, has no more than a $6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than $2 million in annual profits each year for the previous two years.[715] In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, the Commission established a small business size standard for a "small business" as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not to exceed $15 million for the preceding three years.[716] A "very small business" is defined as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not to exceed $3 million for the preceding three years.[717] These size standards will be used in future auctions of 218-219 MHz spectrum.

26. *2.3 GHz Wireless Communications Services*. This service can be used for fixed, mobile, radiolocation, and digital audio broadcasting satellite uses. The Commission defined "small business" for the wireless communications services ("WCS") auction as an entity with average gross revenues of $40 million for each of the three preceding years, and a "very small business" as an entity with average gross revenues of $15 million for each of the three preceding years.[718] The SBA has approved these definitions.[719] The Commission auctioned geographic area licenses in the WCS service. In the auction, which was conducted in 1997, there were seven bidders that won 31 licenses that qualified as very small business entities, and one bidder that won one license that qualified as a small business entity.

27. *1670–1675 MHz Services*. This service can be used for fixed and mobile uses, except aeronautical mobile.[720] An auction for one license in the 1670–1675 MHz band was conducted in 2003. One license was awarded. The winning bidder was not a small entity.

28. *Wireless Telephony*. Wireless telephony includes cellular, personal communications services, and specialized mobile radio telephony carriers. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite)[721] and the appropriate size standard for this

[713] *Amendment of the Commission's Rules to Establish Part 27*, *the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

[714] *See* Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (Dec. 2, 1998) (*Alvarez Letter 1998*).

[715] *See generally Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, PP Docket No. 93-253, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

[716] *See generally Amendment of Part 95 of the Commission's Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, WT Docket No. 98-169, Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999) (*218-219 MHz Report and Order and Memorandum Opinion and Order*).

[717] *See id*.

[718] *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (WCS)*, GN Docket No. 96-228, Report and Order, 12 FCC Rcd 10785, 10879, para. 194 (1997).

[719] *See Alvarez Letter 1998*.

[720] 47 CFR § 2.106; *see generally* 47 CFR §§ 27.1-27.70.

[721] 13 CFR § 121.201, NAICS code 517210.

category under the SBA rules is that such a business is small if it has 1,500 or fewer employees.[722] For this industry, U.S. Census Bureau data for 2012 shows that there were 967 firms that operated for the entire year.[723] Of this total, 955 firms had fewer than 1,000 employees and 12 firms has 1000 employees or more.[724] Thus under this category and the associated size standard, the Commission estimates that a majority of these entities can be considered small. According to Commission data, 413 carriers reported that they were engaged in wireless telephony.[725] Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.[726] Therefore, more than half of these entities can be considered small.

29. *Broadband Personal Communications Service.* The broadband personal communications services (PCS) spectrum is divided into six frequency blocks designated A through F, and the Commission has held auctions for each block. The Commission initially defined a "small business" for C- and F-Block licenses as an entity that has average gross revenues of $40 million or less in the three previous calendar years.[727] For F-Block licenses, an additional small business size standard for "very small business" was added and is defined as an entity that, together with its affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[728] These small business size standards, in the context of broadband PCS auctions, have been approved by the SBA.[729] No small businesses within the SBA-approved small business size standards bid successfully for licenses in Blocks A and B. There were 90 winning bidders that claimed small business status in the first two C-Block auctions. A total of 93 bidders that claimed small business status won approximately 40 percent of the 1,479 licenses in the first auction for the D, E, and F Blocks.[730] On April 15, 1999, the Commission completed the reauction of 347 C-, D-, E-, and F-Block licenses in Auction No. 22.[731] Of the 57 winning bidders in that auction, 48 claimed small business status and won 277 licenses.

30. On January 26, 2001, the Commission completed the auction of 422 C and F Block Broadband PCS licenses in Auction No. 35. Of the 35 winning bidders in that auction, 29 claimed small

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[722] *Id*.

[723] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

[724] *Id*. Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[725] *See* Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf.

[726] *Id*.

[727] *See Amendment of Parts 20 and 24 of the Commission's Rules – Broadband PCS Competitive Bidding and the Commercial Mobile Radio Service Spectrum Cap; Amendment of the Commission's Cellular/PCS Cross-Ownership Rule*; WT Docket No. 96-59, GN Docket No. 90-314, Report and Order, 11 FCC Rcd 7824, 7850-52, paras. 57-60 (1996) (*PCS Report and Order*); *see also* 47 CFR § 24.720(b).

[728] *See PCS Report and Order*, 11 FCC Rcd at 7852, para. 60.

[729] *See Alvarez Letter 1998*.

[730] *See Broadband PCS*, *D*, *E and F Block Auction Closes*, Public Notice, Doc. No. 89838 (rel. Jan. 14, 1997).

[731] *See C*, *D*, *E*, *and F Block Broadband PCS Auction Closes*, Public Notice, 14 FCC Rcd 6688 (WTB 1999). Before Auction No. 22, the Commission established a very small standard for the C Block to match the standard used for F Block. *Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*, WT Docket No. 97-82, Fourth Report and Order, 13 FCC Rcd 15743, 15768, para. 46 (1998).

business status.[732] Subsequent events concerning Auction 35, including judicial and agency determinations, resulted in a total of 163 C and F Block licenses being available for grant. On February 15, 2005, the Commission completed an auction of 242 C-, D-, E-, and F-Block licenses in Auction No. 58. Of the 24 winning bidders in that auction, 16 claimed small business status and won 156 licenses.[733] On May 21, 2007, the Commission completed an auction of 33 licenses in the A, C, and F Blocks in Auction No. 71.[734] Of the 12 winning bidders in that auction, five claimed small business status and won 18 licenses.[735] On August 20, 2008, the Commission completed the auction of 20 C-, D-, E-, and F-Block Broadband PCS licenses in Auction No. 78.[736] Of the eight winning bidders for Broadband PCS licenses in that auction, six claimed small business status and won 14 licenses.[737]

31. *Specialized Mobile Radio Licenses.* The Commission awards "small entity" bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than $15 million in each of the three previous calendar years.[738] The Commission awards "very small entity" bidding credits to firms that had revenues of no more than $3 million in each of the three previous calendar years.[739] The SBA has approved these small business size standards for the 900 MHz Service.[740] The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the $15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the $15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.[741] A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.[742]

32. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels was conducted in 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band and qualified as small businesses under the $15 million size standard.[743] In an auction completed in 2000, a total of 2,800 Economic Area licenses in the

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[732] *See C and F Block Broadband PCS Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 2339 (2001).

[733] *See Broadband PCS Spectrum Auction Closes; Winning Bidders Announced for Auction No. 58*, Public Notice, 20 FCC Rcd 3703 (2005).

[734] *See Auction of Broadband PCS Spectrum Licenses Closes; Winning Bidders Announced for Auction No. 71*, Public Notice, 22 FCC Rcd 9247 (2007).

[735] *Id*.

[736] *See Auction of AWS-1 and Broadband PCS Licenses Closes; Winning Bidders Announced for Auction 78*, Public Notice, 23 FCC Rcd 12749 (WTB 2008).

[737] *Id.*

[738] 47 CFR § 90.814(b)(1).

[739] *Id*.

[740] *See* Letter from Aida Alvarez, Administrator, SBA, to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission (Aug. 10, 1999) (*Alvarez Letter 1999*).

[741] *See Correction to Public Notice DA 96-586 "FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,"* Public Notice, 18 FCC Rcd 18367 (WTB 1996).

[742] *See Multi-Radio Service Auction Closes*, Public Notice, 17 FCC Rcd 1446 (WTB 2002).

[743] *See 800 MHz Specialized Mobile Radio (SMR) Service General Category (851–854 MHz) and Upper Band (861–865 MHz) Auction Closes; Winning Bidders Announced*, Public Notice, 15 FCC Rcd 17162 (2000).

lower 80 channels of the 800 MHz SMR service were awarded.[744] Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all four auctions, 41 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small businesses.

33. In addition, there are numerous incumbent site-by-site SMR licenses and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR service pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than $15 million. One firm has over $15 million in revenues. In addition, we do not know how many of these firms have 1,500 or fewer employees, which is the SBA-determined size standard.[745] We assume, for purposes of this analysis, that all of the remaining extended implementation authorizations are held by small entities, as defined by the SBA.

34. *Lower 700 MHz Band Licenses*. The Commission previously adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.[746] The Commission defined a "small business" as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[747] A "very small business" is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[748] Additionally, the lower 700 MHz Service had a third category of small business status for Metropolitan/Rural Service Area (MSA/RSA) licenses—"entrepreneur"—which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years.[749] The SBA approved these small size standards.[750] An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were won by 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.[751] A second auction commenced on May 28, 2003, closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 Cellular Market Area licenses.[752] Seventeen winning bidders claimed small or very small business status and won 60 licenses, and nine winning bidders claimed entrepreneur status and won 154 licenses.[753] On July 26, 2005, the Commission completed an auction of 5 licenses in the Lower 700 MHz band (Auction No. 60). There were three winning bidders for five licenses. All three winning bidders claimed small business status.

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744 *See 800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced*, Public Notice, 16 FCC Rcd 1736 (2000).

745 *See generally* 13 CFR § 121.201, NAICS code 517210.

746 *See Reallocation and Service Rules for the 698–746 MHz Spectrum Band (Television Channels 52–59)*, GN Docket No. 01-74, Report and Order, 17 FCC Rcd 1022 (2002) (*Channels 52–59 Report and Order*).

747 *See id.* at 1087-88, para. 172.

748 *See id.*

749 *See id.* at 1088, para. 173.

750 *See Alvarez Letter 1999*.

751 *See Lower 700 MHz Band Auction Closes*, Public Notice, 17 FCC Rcd 17272 (WTB 2002).

752 *See id.*

753 *See id.*

35. In 2007, the Commission reexamined its rules governing the 700 MHz band in the *700 MHz Second Report and Order*.[754] An auction of 700 MHz licenses commenced January 24, 2008 and closed on March 18, 2008, which included, 176 Economic Area licenses in the A Block, 734 Cellular Market Area licenses in the B Block, and 176 EA licenses in the E Block.[755] Twenty winning bidders, claiming small business status (those with attributable average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years) won 49 licenses. Thirty three winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years) won 325 licenses.

36. *Upper 700 MHz Band Licenses*. In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses.[756] On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band were available for licensing: 12 Regional Economic Area Grouping licenses in the C Block, and one nationwide license in the D Block.[757] The auction concluded on March 18, 2008, with 3 winning bidders claiming very small business status (those with attributable average annual gross revenues that do not exceed $15 million for the preceding three years) and winning five licenses.

37. *700 MHz Guard Band Licensees*. In 2000, in the 700 MHz Guard Band Order, the Commission adopted size standards for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[758] A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $40 million for the preceding three years.[759] Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $15 million for the preceding three years.[760] SBA approval of these definitions is not required.[761] An auction of 52 Major Economic Area licenses commenced on September 6, 2000, and closed on September 21, 2000.[762] Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second

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[754] *Service Rules for the 698–746, 747–762 and 777–792 MHz Band; Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems; Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones; Biennial Regulatory Review—Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010; Declaratory Ruling on Reporting Requirement under Commission's Part 1 Anti-Collusion Rule*, WT Docket Nos. 07-166, 06-169, 06-150, 03-264, 96-86, PS Docket No. 06-229, CC Docket No. 94-102, Second Report and Order, 22 FCC Rcd 15289, 15359 n. 434 (2007) (*700 MHz Second Report and Order*).

[755] *See Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

[756] *700 MHz Second Report and Order*, 22 FCC Rcd 15289.

[757] *See Auction of 700 MHz Band Licenses Closes*, Public Notice, 23 FCC Rcd 4572 (WTB 2008).

[758] *See Service Rules for the 746–764 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd 5299 (2000) (*746–764 MHz Band Second Report and Order*).

[759] *See id.* at 5343, para. 108.

[760] *See id.*

[761] *See id.* at 5343, para. 108 n.246 (for the 746–764 MHz and 776–794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

[762] *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 15 FCC Rcd 18026 (WTB 2000).

auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.[763]

38. *Cellular Radiotelephone Service.* Auction 77 was held to resolve one group of mutually exclusive applications for Cellular Radiotelephone Service licenses for unserved areas in New Mexico.[764] Bidding credits for designated entities were not available in Auction 77.[765] In 2008, the Commission completed the closed auction of one unserved service area in the Cellular Radiotelephone Service, designated as Auction 77. Auction 77 concluded with one provisionally winning bid for the unserved area totaling $25,002.[766]

39. *Private Land Mobile Radio ("PLMR").* PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the licensee's primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, Wireless Telecommunications Carriers (except Satellite). This definition provides that a small entity is any such entity employing no more than 1,500 persons.[767] The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.[768]

40. As of March 2010, there were 424,162 PLMR licensees operating 921,909 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that any revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

41. *Rural Radiotelephone Service.* The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.[769] A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (BETRS).[770] In the present context, we will use the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), i.e., an entity employing no more than 1,500 persons.[771] There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that

[763] *See 700 MHz Guard Bands Auction Closes: Winning Bidders Announced*, Public Notice, 16 FCC Rcd 4590 (WTB 2001).

[764] *See Closed Auction of Licenses for Cellular Unserved Service Area Scheduled for June 17, 2008, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments, and Other Procedures for Auction 77*, Public Notice, 23 FCC Rcd 6670 (WTB 2008).

[765] *Id*. at 6685.

[766] *See Auction of Cellular Unserved Service Area License Closes, Winning Bidder Announced for Auction 77, Down Payment due July 2, 2008, Final Payment due July 17, 2008*, Public Notice, 23 FCC Rcd 9501 (WTB 2008).

[767] ***See* 13 CFR § 121.201, NAICS code 517210.**

[768] ***See generally* 13 CFR § 121.201.**

[769] **The service is defined in 47 CFR § 22.99.**

[770] **BETRS is defined in 47 CFR §§ 22.757 and 22.759.**

[771] **13 CFR § 121.201, NAICS code 517210.**

there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

42. *Air-Ground Radiotelephone Service*. The Commission has previously used the SBA's small business size standard applicable to Wireless Telecommunications Carriers (except Satellite), which is an entity employing no more than 1,500 persons.[772] For this industry, U.S. Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees and 12 had employment of 1000 employees or more.[773] There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined "small business" as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $40 million.[774] A "very small business" is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding $15 million.[775] These definitions were approved by the SBA.[776] In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

43. *Aviation and Marine Radio Services.* Small businesses in the aviation and marine radio services use a very high frequency (VHF) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category Wireless Telecommunications Carriers (except Satellite), which is 1,500 or fewer employees.[777] U.S. Census Bureau data for 2012 shows that there were 967 firms that operated for the entire year.[778] Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.[779] Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals)

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[772] 13 CFR § 121.201, NAICS codes 517210.

[773] *Id*. Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[774] *Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services*, *Biennial Regulatory Review—Amendment of Parts 1*, *22*, *and 90 of the Commission's Rules*, *Amendment of Parts 1 and 22 of the Commission's Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service*, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, paras. 28-42 (2005).

[775] *Id*.

[776] *See* Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, Wireless Telecommunications Bureau, Federal Communications Commission (Sept. 19, 2005).

[777] *See* 13 CFR § 121.201, NAICS code 517210.

[778] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

[779] *Id*. Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a "small" business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed $15 million dollars.[780] In addition, a "very small" business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed $3 million dollars.[781] There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as "small" businesses under the above special small business size standards.

44. Advanced Wireless Services (AWS) (1710–1755 MHz and 2110–2155 MHz bands (AWS-1); 1915–1920 MHz, 1995–2000 MHz, 2020–2025 MHz and 2175–2180 MHz bands (AWS-2); 2155–2175 MHz band (AWS-3)). For the AWS-1 bands,[782] the Commission has defined a "small business" as an entity with average annual gross revenues for the preceding three years not exceeding $40 million, and a "very small business" as an entity with average annual gross revenues for the preceding three years not exceeding $15 million. For AWS-2 and AWS-3, although we do not know for certain which entities are likely to apply for these frequencies, we note that the AWS-1 bands are comparable to those used for cellular service and personal communications service. The Commission has not yet adopted size standards for the AWS-2 or AWS-3 bands but proposes to treat both AWS-2 and AWS-3 similarly to broadband PCS service and AWS-1 service due to the comparable capital requirements and other factors, such as issues involved in relocating incumbents and developing markets, technologies, and services.[783]

45. *3650–3700 MHz band*. In March 2005, the Commission released a *Report and Order and Memorandum Opinion and Order* that provides for nationwide, non-exclusive licensing of terrestrial operations, utilizing contention-based technologies, in the 3650 MHz band (i.e., 3650–3700 MHz). As of April 2010, more than 1270 licenses have been granted and more than 7433 sites have been registered. The Commission has not developed a definition of small entities applicable to 3650–3700 MHz band nationwide, non-exclusive licensees. However, we estimate that the majority of these licensees are Internet Access Service Providers (ISPs) and that most of those licensees are small businesses.

46. *Fixed Microwave Services.* Microwave services include common carrier,[784] private-operational fixed,[785] and broadcast auxiliary radio services.[786] They also include the Local Multipoint

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[780] *See generally Amendment of the Commission's Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853, 19884–88 paras. 64–73 (1998).

[781] *See id*.

[782] The service is defined in section 90.1301 *et seq*. of the Commission's Rules, 47 CFR § 90.1301 *et seq*.

[783] *See Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Report and Order, 18 FCC Rcd 25162, Appx. B (2003), *modified by Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket No. 02-353, Order on Reconsideration, 20 FCC Rcd 14058, Appx. C (2005); *Service Rules for Advanced Wireless Services in the 1915–1920 MHz*, *1995–2000 MHz*, *2020–2025 MHz and 2175–2180 MHz Bands; Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, WT Docket Nos. 04-356, 02-353, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, Appx. B (2005); *Service Rules for Advanced Wireless Services in the 2155–2175 MHz Band*, WT Docket No. 07-195, Notice of Proposed Rulemaking, 22 FCC Rcd 17035, Appx. (2007).

[784] *See* 47 CFR Part 101, Subparts C and I.

Distribution Service (LMDS),[787] the Digital Electronic Message Service (DEMS),[788] and the 24 GHz Service,[789] where licensees can choose between common carrier and non-common carrier status.[790] At present, there are approximately 36,708 common carrier fixed licensees and 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. There are approximately 135 LMDS licensees, three DEMS licensees, and three 24 GHz licensees. The Commission has not yet defined a small business with respect to microwave services. The closest applicable SBA category is Wireless Telecommunications Carriers (except Satellite) and the appropriate size standard for this category under SBA rules is that such a business is small if it has 1,500 or fewer employees.[791] For this industry, U.S. Census data for 2012 show that there were 967 firms that operated for the entire year.[792] Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.[793] Thus under this SBA category and the associated size standard, the Commission estimates that a majority of fixed microwave service licensees can be considered small.

47. The Commission does not have data specifying the number of these licensees that have more than 1,500 employees, and thus is unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are up to 36,708 common carrier fixed licensees and up to 59,291 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies adopted herein. We note, however, that the common carrier microwave fixed licensee category does include some large entities.

48. *Offshore Radiotelephone Service.* This service operates on several UHF television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.[794] The closest applicable SBA size standard is for Wireless Telecommunications Carriers (except Satellite), which is an entity employing no more than 1,500 persons.[795] U.S. Census

[785] *See* 47 CFR Part 101, Subparts C and H.

[786] Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. *See* 47 CFR Part 74. Available to licensees of broadcast stations and to broadcast and cable network entities, broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile TV pickups, which relay signals from a remote location back to the studio.

[787] *See* 47 CFR Part 101, Subpart L.

[788] *See* 47 CFR Part 101, Subpart G.

[789] *See id*.

[790] *See* 47 CFR §§ 101.533, 101.1017.

[791] *See* 13 CFR § 121.201, NAICS code 517210.

[792] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series, "Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210" (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517210.

[793] *Id*. Available census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[794] This service is governed by Subpart I of Part 22 of the Commission's Rules. *See* 47 CFR §§ 22.1001-22.1037.

[795] 13 CFR § 121.201, NAICS codes 517210.

Bureau data in this industry for 2012 show that there were 967 firms that operated for the entire year.[796] Of this total, 955 firms had employment of 999 or fewer employees and 12 had employment of 1000 employees or more.[797] Thus, under this SBA category and the associated small business size standard, the majority of Offshore Radiotelephone Service firms can be considered small. There are presently approximately 55 licensees in this service. However, the Commission is unable to estimate at this time the number of licensees that would qualify as small under the SBA's small business size standard for the category of Wireless Telecommunications Carriers (except Satellite).

49. *39 GHz Service.* The Commission created a special small business size standard for 39 GHz licenses—an entity that has average gross revenues of $40 million or less in the three previous calendar years.[798] An additional size standard for "very small business" is: an entity that, together with affiliates, has average gross revenues of not more than $15 million for the preceding three calendar years.[799] The SBA has approved these small business size standards.[800] The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses. Consequently, the Commission estimates that 18 or fewer 39 GHz licensees are small entities that may be affected by rules adopted pursuant to the Order.

50. *Broadband Radio Service and Educational Broadband Service.* Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) systems, and "wireless cable," transmit video programming to subscribers and provide two-way high-speed data operations using the microwave frequencies of the Broadband Radio Service (BRS) and Educational Broadband Service (EBS) (previously referred to as the Instructional Television Fixed Service (ITFS)).[801]

51. *BRS* - In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than $40 million in the previous three calendar years.[802] The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (BTAs). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 86 incumbent BRS licensees that are considered small entities (18 incumbent BRS licensees do not meet the small business size standard).[803] After adding the number of small business auction licensees to the

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[796] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ5, Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012 NAICS Code 517210 (rel. Jan. 8, 2016). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~5172100.

[797] *Id*. Available census data does not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[798] *See Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, PP Docket No. 93-253, Report and Order, 12 FCC Rcd 18600, 18661–64, paras. 149–151 (1997).

[799] *See id.*

[800] *See* Letter to Kathleen O'Brien Ham, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, SBA (Feb. 4, 1998).

[801] *Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act—Competitive Bidding*, Report and Order, 10 FCC Rcd 9589, 9593, para. 7 (1995).

[802] 47 CFR § 21.961(b)(1).

[803] 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA's small business size standard of 1500 or fewer employees.

number of incumbent licensees not already counted, there are currently approximately 133 BRS licensees that are defined as small businesses under either the SBA or the Commission's rules.

52. In 2009, the Commission conducted Auction 86, the sale of 78 licenses in the BRS areas.[804] The Commission offered three levels of bidding credits: (i) a bidder with attributed average annual gross revenues that exceed $15 million and do not exceed $40 million for the preceding three years (small business) received a 15 percent discount on its winning bid; (ii) a bidder with attributed average annual gross revenues that exceed $3 million and do not exceed $15 million for the preceding three years (very small business) received a 25 percent discount on its winning bid; and (iii) a bidder with attributed average annual gross revenues that do not exceed $3 million for the preceding three years (entrepreneur) received a 35 percent discount on its winning bid.[805] Auction 86 concluded in 2009 with the sale of 61 licenses.[806] Of the ten winning bidders, two bidders that claimed small business status won 4 licenses; one bidder that claimed very small business status won three licenses; and two bidders that claimed entrepreneur status won six licenses.

53. *EBS* - Educational Broadband Service has been included within the broad economic census category and SBA size standard for Wired Telecommunications Carriers since 2007. Wired Telecommunications Carriers are comprised of establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies."[807] The SBA's small business size standard for this category is all such firms having 1,500 or fewer employees.[808] U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.[809] Of this total, 3,083 operated with fewer than 1,000 employees.[810] Thus, under this size standard, the majority of firms in this industry can be considered small. In addition to Census data, the Commission's Universal Licensing System indicates that as of October 2014, there are 2,206 active EBS licenses. The Commission estimates that of these 2,206 licenses, the majority are held by non-profit educational institutions and school districts, which are by statute defined as small businesses.[811]

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[804] *Auction of Broadband Radio Service (BRS) Licenses*, *Scheduled for October 27*, *2009*, *Notice and Filing Requirements*, *Minimum Opening Bids*, *Upfront Payments*, *and Other Procedures for Auction 86*, Public Notice, 24 FCC Rcd 8277 (2009).

[805] *Id*. at 8296, para. 73.

[806] *Auction of Broadband Radio Service Licenses Closes*, *Winning Bidders Announced for Auction 86*, *Down Payments Due November 23*, *2009*, *Final Payments Due December 8*, *2009*, *Ten-Day Petition to Deny Period*, Public Notice, 24 FCC Rcd 13572 (2009).

[807] U.S. Census Bureau, 2017 NAICS Definitions, "517311 Wired Telecommunications Carriers," (partial definition), http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017.

[808] *See,* 13 CFR § 121.201. The Wired Telecommunications Carrier category formerly used the NAICS code of 517110. As of 2017 the U.S. Census Bureau definition shows the NAICs code as 517311 for Wired Telecommunications Carriers. *See*, https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=517311&search=2017.

[809] *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[810] *Id.*

[811] The term "small entity" within SBREFA applies to small organizations (non-profits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6).

54. *Narrowband Personal Communications Services*. Two auctions of narrowband personal communications services (PCS) licenses have been conducted. To ensure meaningful participation of small business entities in future auctions, the Commission has adopted a two-tiered small business size standard in the Narrowband PCS Second Report and Order. Through these auctions, the Commission has awarded a total of 41 licenses, out of which 11 were obtained by small businesses.[812] A "small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $40 million. A "very small business" is an entity that, together with affiliates and controlling interests, has average gross revenues for the three preceding years of not more than $15 million. The SBA has approved these small business size standards.[813]

55. *Paging (Private and Common Carrier)*. In the *Paging Third Report and Order*, the Commission developed a small business size standard for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[814] A "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years. Additionally, a "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than $3 million for the preceding three years. The SBA has approved these small business size standards.[815] According to Commission data, 291 carriers have reported that they are engaged in Paging or Messaging Service.[816] Of these, an estimated 289 have 1,500 or fewer employees, and two have more than 1,500 employees.[817] Consequently, the Commission estimates that the majority of paging providers are small entities that may be affected by our action. An auction of Metropolitan Economic Area licenses commenced on February 24, 2000, and closed on March 2, 2000. Of the 2,499 licenses auctioned, 985 were sold. Fifty-seven companies claiming small business status won 440 licenses.[818] A subsequent auction of MEA and Economic Area ("EA") licenses was held in the year 2001. Of the 15,514 licenses auctioned, 5,323 were sold.[819] One hundred thirty-two companies claiming small business status purchased 3,724 licenses. A third auction, consisting of 8,874 licenses in each of 175 EAs and 1,328 licenses in all but three of the 51 MEAs, was held in 2003. Seventy-seven bidders claiming small or very small business status won 2,093 licenses.[820] A fourth auction, consisting of 9,603 lower and

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[812] *Amendment of the Commission's Rules to Establish New Personal Communications Services, Narrowband PCS*, GEN Docket No. 90-314, ET Docket No. 92-100, PP Docket No. 93-253, Second Report and Order and Second Further Notice of Proposed Rulemaking, 15 FCC Rcd 10456 (2000).

[813] *See* Letter from Aida Alvarez, Administrator, SBA, to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, FCC (Dec. 2, 1998) (*Alvarez Letter 1998*).

[814] *See Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems*, WT Docket No. 96-18, PR Docket No. 93-253, Memorandum Opinion and Order on Reconsideration and Third Report and Order, 14 FCC Rcd 10030, 10085–88, paras. 98–107 (1999) (*Paging Third Report and Order*)

[815] *See Alvarez Letter 1998*.

[816] *See Trends in Telephone Service* at Table 5.3.

[817] *See id*.

[818] *See id.*

[819] *See Lower and Upper Paging Band Auction Closes*, Public Notice, 16 FCC Rcd 21821 (Wireless Tel. Bur. 2002).

[820] *See Lower and Upper Paging Bands Auction Closes*, Public Notice, 18 FCC Rcd 11154 (Wireless Tel. Bur. 2003). The current number of small or very small business entities that hold wireless licenses may differ significantly from the number of such entities that won in spectrum auctions due to assignments and transfers of licenses in the secondary market over time. In addition, some of the same small business entities may have won licenses in more than one auction.

upper paging band licenses was held in the year 2010. Twenty-nine bidders claiming small or very small business status won 3,016 licenses.[821]

56. *220 MHz Radio Service – Phase I Licensees.* The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a small business size standard for small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to Wireless Telecommunications Carriers (except Satellite). Under this category, the SBA deems a wireless business to be small if it has 1,500 or fewer employees.[822] The Commission estimates that nearly all such licensees are small businesses under the SBA's small business size standard.

57. *220 MHz Radio Service – Phase II Licensees.* The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is subject to spectrum auctions. In the *220 MHz Third Report and Order*, the Commission adopted a small business size standard for "small" and "very small" businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.[823] This small business size standard indicates that a "small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding $15 million for the preceding three years.[824] A "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed $3 million for the preceding three years.[825] The SBA has approved these small business size standards.[826] Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.[827] In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (EAG) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold. Thirty-nine small businesses won licenses in the first 220 MHz auction. The second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.[828]

5. Satellite Service Providers

58. *Satellite Telecommunications Providers.* This category comprises firms "primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or

[821] *See Auction of Lower and Upper Paging Bands Licenses Closes*, Public Notice, 25 FCC Rcd 18164 (Wireless Tel. Bur. 2010).

[822] *See* 13 CFR § 121.201, NAICS code 517210.

[823] *See Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, PR Docket No. 89-552, GN Docket No. 93-252, PP Docket No. 93-253, Third Report and Order and Fifth Notice of Proposed Rulemaking, 12 FCC Rcd 10943, 11068–70, paras. 291–295 (1997) (*220 MHz Third Report and Order*).

[824] *See id*. at 11068–69, para. 291.

[825] *See id*. at 11068–70, paras. 291–95.

[826] *See* Letter to D. Phythyon, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, SBA (Jan. 6, 1998) (*Alvarez to Phythyon Letter 1998*).

[827] *See Phase II 220 MHz Service Auction Closes*, Public Notice, 14 FCC Rcd 605 (Wireless Tel. Bur. 1998).

[828] *See Phase II 220 MHz Service Spectrum Auction Closes*, Public Notice, 14 FCC Rcd 11218 (Wireless Tel. Bur.1999).

reselling satellite telecommunications."[829] Satellite telecommunications service providers include satellite and earth station operators. The category has a small business size standard of $32.5 million or less in average annual receipts, under SBA rules.[830] For this category, U.S. Census Bureau data for 2012 shows that there were a total of 333 firms that operated for the entire year.[831] Of this total, 299 firms had annual receipts of less than $25 million.[832] Consequently, we estimate that the majority of satellite telecommunications providers are small entities.

59. Because section 706 requires us to monitor the deployment of broadband using any technology, we anticipate that some broadband service providers may not provide telephone service. Accordingly, we describe below other types of firms that may provide broadband services, including cable companies, MDS providers, and utilities, among others.

60. *Cable and Other Subscription Programming.* This industry comprises establishments primarily engaged in operating studios and facilities for the broadcasting of programs on a subscription or fee basis. The broadcast programming is typically narrowcast in nature (e.g., limited format, such as news, sports, education, or youth-oriented). These establishments produce programming in their own facilities or acquire programming from external sources. The programming material is usually delivered to a third party, such as cable systems or direct-to-home satellite systems, for transmission to viewers.[833] The SBA size standard for this industry establishes as small, any company in this category which has annual receipts of $38.5 million or less.[834] According to 2012 U.S. Census Bureau data, 367 firms operated for the entire year.[835] Of that number, 319 operated with annual receipts of less than $25 million a year and 48 firms operated with annual receipts of $25 million or more.[836] Based on this data, the Commission estimates that the majority of firms operating in this industry are small.

61. *Cable Companies and Systems (Rate Regulation).* The Commission has developed its own small business size standards for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers nationwide.[837] Industry data indicate that there are currently 4,600 active cable systems in the United States.[838] Of this total, all but

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[829] U.S. Census Bureau, 2017 NAICS Definitions, "517410 Satellite Telecommunications"; https://www.census.gov/cgi-bin/sssd/naics/naicsrch?input=517410&search=2017+NAICS+Search&search=2017.

[830] 13 CFR § 121.201, NAICS code 517410.

[831] U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ4, Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the United States: 2012, NAICS code 517410 https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ4//naics~517410.

[832] *Id*.

[833] S*ee* U.S. Census Bureau, 2012 NAICS Definitions, "515210 Cable and other Subscription Programming", *https://factfinder.census.gov/faces/affhelp/jsf/pages/metadata.xhtml?lang=en&type=ib&id=ib.en./ECN.NAICS2012.515210#.*

[834] *See* 13 CFR § 121.201, NAICS Code 515210.

[835] *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table EC1251SSSZ4, Information: Subject Series - Estab & Firm Size: Receipts Size of Firms for the U.S.: 2012, NAICS Code 515210, https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ4//naics~515210.

[836] *Id*. Available census data does not provide a more precise estimate of the number of firms that have receipts of $38.5 million or less.

[837] 47 CFR § 76.901(e).

[838] The number of active, registered cable systems comes from the Commission's Cable Operations and Licensing System (COALS) database on August 15, 2015. *See* FCC, *Cable Operations and Licensing System (COALS)*, www.fcc.gov/coals (last visited Oct. 25, 2016).

nine cable operators nationwide are small under the 400,000-subscriber size standard.[839] In addition, under the Commission's rate regulation rules, a "small system" is a cable system serving 15,000 or fewer subscribers.[840] Current Commission records show 4,600 cable systems nationwide.[841] Of this total, 3,900 cable systems have fewer than 15,000 subscribers, and 700 systems have 15,000 or more subscribers, based on the same records.[842] Thus, under this standard as well, we estimate that most cable systems are small entities.

62. *Cable System Operators (Telecom Act Standard).* The Communications Act of 1934, as amended also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than one percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000."[843] There are approximately 52,403,705 cable video subscribers in the United States today.[844] Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed $250 million in the aggregate.[845] Based on available data, we find that all but nine incumbent cable operators are small entities under this size standard.[846] We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed $250 million.[847] Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed $250 million, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

63. The open video system ("OVS") framework was established in 1996, and is one of four statutorily recognized options for the provision of video programming services by local exchange carriers.[848] The OVS framework provides opportunities for the distribution of video programming other than through cable systems. Because OVS operators provide subscription services,[849] OVS falls within the SBA small business size standard covering cable services, which is "Wired Telecommunications Carriers."[850] The SBA has developed a small business size standard for this category, which is: all such

[839] *See* SNL KAGAN, *Top Cable MSOs*, https://www.snl.com/Interactivex/TopCableMSOs.aspx (last visited Oct. 25, 2016).

[840] 47 CFR § 76.901(c).

[841] *See March 31, 2013 Broadcast Station Totals Press Release.*

[842] *See* FCC, *Cable Operations and Licensing System (COALS)*, www.fcc.gov/coals (last visited Oct. 25, 2016).

[843] 47 CFR § 76.90(f) and notes ff. 1, 2, and 3.

[844] *See* SNL KAGAN at http://www.snl.com/interactivex/MultichannelIndustryBenchmarks.aspx.

[845] 47 CFR § 76.901(f) and notes ff. 1, 2, and 3.

[846] *See* SNL KAGAN at http://www.snl.com/interactivex/TopCable MSOs.aspx.

[847] The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to section 76.901(f) of the Commission's rules. *See* 47 CFR § 76.901(f).

[848] 47 U.S.C. § 571(a)(3)-(4). *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 06-189, Thirteenth Annual Report, 24 FCC Rcd 542, 606, para. 135 (2009) (*Thirteenth Annual Cable Competition Report*).

[849] *See* 47 U.S.C. § 573.

[850] U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers"; http://www.census.gov/naics/2007/def/ND517110.HTM#N517110.

firms having 1,500 or fewer employees. .[851] U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.[852] Of this total, 3,083 operated with fewer than 1,000 employees.[853] Thus, under this second size standard, most cable systems are small and may be affected by rules adopted pursuant to the Report and Order. In addition, we note that the Commission has certified some OVS operators, with some now providing service.[854] Broadband service providers ("BSPs") are currently the only significant holders of OVS certifications or local OVS franchises.[855] The Commission does not have financial or employment information regarding the entities authorized to provide OVS, some of which may not yet be operational. Thus, again, at least some of the OVS operators may qualify as small entities.

6. Electric Power Generators, Transmitters, and Distributors

64. *Electric Power Generators*, *Transmitters*, *and Distributors.* This U.S. industry is comprised of establishments that are primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.[856] The closest applicable SBA category is "All Other Telecommunications". The SBA's small business size standard for "All Other Telecommunications," consists of all such firms with gross annual receipts of $32.5 million or less.[857] For this category, U.S. Census data for 2012 show that there were 1,442 firms that operated for the entire year. Of these firms, a total of 1,400 had gross annual receipts of less than $25 million.[858] Consequently, we estimate that under this category and the associated size standard the majority of these firms can be considered small entities.

E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

65. In the Report and Order, we require all rate-of-return carriers, not just legacy carriers, to file line count data in the FCC Form 507, and we change the deadline for line count reporting. We amend the Uniform System of Accounts (USOA) contained in Part 32 of the Commission's rules to incorporate new lease accounting standards adopted by the Financial Accounting Standards Board (FASB). We update deployment obligations consistent with the reset budget and rules changes adopted in this Report and Order. By adopting defined deployment obligations for all legacy carriers, we require all of them to report deployment in the High Cost Universal Broadband (HUBB) portal.

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[851] *Id*.

[852] *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table No. EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms: 2012* (517110 Wired Telecommunications Carriers). https://factfinder.census.gov/bkmk/table/1.0/en/ECN/2012_US/51SSSZ5//naics~517110.

[853] *Id.*

[854] A list of OVS certifications may be found at http://www.fcc.gov/mb/ovs/csovscer.html.

[855] *See Thirteenth Annual Cable Competition Report*, 24 FCC Rcd at 606-07 para. 135. BSPs are newer firms that are building state-of-the-art, facilities-based networks to provide video, voice, and data services over a single network.

[856] http://www.census.gov/cgi-bin/ssssd/naics/naicsrch.

[857] 13 CFR § 121.201; NAICS Code 517919.

[858] http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2012_US_51SSSZ4&prodType=table.

F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

66. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include (among others) the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.[859] We have considered all of these factors subsequent to receiving substantive comments from the public and potentially affected entities. The Commission has also considered the economic impact on small entities, as identified in comments filed in response to *2018 Rate-of-Return Reform Order and NPRM* and IRFA, in reaching its final conclusions and taking action in this proceeding.

67. The rules that we adopt in the Report and Order take steps to provide greater certainty and flexibility to rate-of-return carriers, many of which are small entities. We authorize additional support for existing A-CAM carriers. We also authorize a new A-CAM offer for current legacy carriers, providing them the opportunity to receive model-based support in exchange for deploying broadband-capable networks to a pre-determined number of eligible locations. The Commission recognizes that permitting rate-of-return carriers to elect to receive fix monthly support amounts over the ten years will enhance the ability of these carriers to deploy broadband throughout the term and free them from the administrative burdens associated with doing cost studies to receive high-cost support. For this new offer, as with the existing A-CAM carriers, to provide flexibility, we adopt interim milestones over the support term and permit the carriers to meet their obligations by deploying to 95 percent of the minimum number of locations.

68. Furthermore, we adopt a new and separate budget for the legacy carriers that annually adjusts to factor in inflation and includes a minimum threshold of support not subject to the budget constraint. This will increase the amount of support available providing sufficiency and predictability for the legacy carriers. We reimburse all support reductions budget control mechanism. Another action we take to make carriers' support more predictable is eliminating the per-line reduction calculation that was part of the budget control mechanism. We also eliminate the capital investment allowance, which provides further relief to legacy carriers. The capital investment allowance had been deterring economically efficient investments and was administratively overburdensome for the carriers.

69. In adopting mandatory line count reporting for all rate-of-return carriers, we note that this is something that all carriers were required to do previously, and the burden is minimal. In lowering the monthly per-line support for legacy carriers, to minimize the impact, we do it gradually – from $250 to $225, effective July 1, 2019, and then to $200, effective July 1, 2021. In revising the deployment obligations for legacy carriers, to minimize the impact, we restart the five-year deployment term and allow any locations deployed to with at least 25/3 Mbps broadband in the original term to count towards this new term. Finally, our decision to auction off support in legacy study areas may have a significant economic impact on small entities, but to reduce that impact, we limit the auction to study areas that are significantly overlapped with unsubsidized competition. Moreover, while it affects incumbent LECs, our decision to auction certain legacy areas may have a positive impact on other small entity providers who currently do not receive universal service support.

G. Report to Congress

70. The Commission will send a copy of the Report and Order, including this FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Small Business

[859] 5 U.S.C. § 603(c).

Regulatory Enforcement Fairness Act of 1996.[860] In addition, the Commission will send a copy of the Order, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A copy of the Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.[861]

[860] 5 U.S.C. § 801(a)(1)(A).

[861] *See id*. § 604(b).

APPENDIX D

CAF BLS Assumptions

- The first year of the forecast will be 2019.
- 2017 validated data will be used.
- NECA may use current data to assign converted study areas to a group and exclude their data from the weighted average growth rate calculations for the groups to which they are assigned. For this calculation, converted study areas are limited to those study areas which converted in the prior year.
- The forecast will assume that legacy companies that have not yet built out broadband will invest at a higher rate than those who have recently built out their networks. Companies will be sorted by descending ratio of net plant to gross plant based on net plant and gross plant in 2017. For the relevant period (2019 – 2023), the top one third of carriers (those with the highest level of investment currently) will be forecast to invest at the average rate of the bottom third of carriers (the average rate of those with the lowest net plant to gross plant ratios). Conversely, the bottom one third of carriers will be forecast to invest at the average rate of the top one third of carriers. The remaining third (those in the middle) will be forecast to continue investing at the same rate as previously.
- HCLS and BLS will be calculated based on the rules adopted in this Report and Order.
- For 2019 through 2023, the forecast will make the following assumptions. 1) Non-broadband only lines will decrease by 5.92 percent per year. We assume that 4 percent are converted to broadband only lines and that 2 percent of the remaining lines account for general line loss. Thus, a carrier with 10,000 non-broadband-only lines in the earlier period would be predicted to have 400 convert to broadband only and 192 (=9600*0.02) fewer lines to account for general line loss. 2) Broadband-only lines that existed in the prior year will be decreased by 1 percent.
    - For study areas with broadband-only lines in 2017, we assume in each year non-broadband-only lines will decrease by 5.92 percent per year; 4 percent of non-broadband-only lines are converted to broadband-only lines; the remaining non-broadband-only lines are reduced 2 percent; and broadband-only lines that existed in the prior year will be decreased by 1 percent.
    - For those study areas that report no broadband-only lines in 2017 but predict some broadband-only lines in Form 508 for 2018/2019, we assume that those study areas begin providing broadband-only in 2018 using the assumptions above to calculate broadband-only and non-broadband-only lines.
    - For all other study areas, we assume that all lines will be non-broadband-only lines in 2018 and that the study area will begin providing standalone broadband service in 2019 with line counts determined by the assumptions above.

In mathematical terms, the number of lines will be calculated based on the following equations, where BOL = broadband-only lines:

When determining Broadband only and non-broadband only lines for 2019 through 2023, NECA should use the below formulas:

$BOL_{Year} = .04*non\text{-}BOL_{Year-1} + BOL_{Year-1} * (1 - .01)$

$Non\text{-}BOL_{Year} = (.96*non\text{-}BOL_{Year-1}) * (1 - .02)$

For 2018 line counts, NECA should do the following;

For study areas that have stand-alone broadband in their current Form 507:

$BOL_{2018} = .04* Non\text{-}BOL_{2017} + BOL_{2017} * (1 -.01)$

$Non\text{-}BOL_{2018} = .96*non\text{-}BOL_{2017} * (1 -.02)$

For study areas that have no stand-alone broadband in their current Form 507 but who project to have stand-alone broadband in their current Form 508:

$BOL_{2018} = .04*non\text{-}BOL_{2017}$

$Non\text{-}BOL_{2018} = (.96*non\text{-}BOL_{2017}) * (1 - .02)$

For all other study areas:

$BOL_{2018} = 0$

$Non\text{-}BOL_{2018} = Non\text{-}BOL_{2017} * (1 - .02)$

STATEMENT OF
CHAIRMAN AJIT PAI

Re: *Connect America Fund*, WC Docket No. 10-90; *ETC Annual Reports and Certifications*, WC Docket No. 14-58; *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135; *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92.

Today, we take a major step toward closing the digital divide. The trees are thick: We're substantially reforming the high-cost universal service support program for some of the country's smallest rural carriers, and the program's rules are complicated to say the least. But the forest is easy to see: We're helping to ensure that rural Americans can participate in the digital economy.

We're changing the system for rural carriers and consumers alike in three basic ways. Each will result in material improvements in rural connectivity.

The first involves so-called A-CAM carriers, named for the Alternative Connect America Cost Model that's used to calculate their support and that they opted into a few years ago. These carriers receive fixed amounts of support based on economic modeling of their costs of deploying and maintaining broadband in their service areas. These carriers were initially required to deploy 10/1 Mbps service to certain locations predicted to cost below $200 per month to serve. Due to budgetary limits at the time, that $200-per-month-per-location figure was reduced to less than $150. Today, we're increasing the support available to these carriers back to the intended maximum of $200 per location. But critically, this increase is now tied to requirements that those carriers deploy 25/3 Mbps service—the FCC's definition of "broadband"—to additional locations in their service areas. This will mean full digital opportunity for more than 100,000 homes and businesses.

The second set of reforms extends a new offer of model-based support to rate-of-return carriers that did not accept the first offer. However, here too we include meaningful new obligations that will benefit rural consumers. For example, carriers electing this offer will be required to deploy 25/3 Mbps broadband to *all* locations in their service areas for which the A-CAM model predicts it'll cost $200 or less to serve. Additionally, this new offer supports deployment to rural areas that would not have been eligible for support in the 2016 offer. Carriers serving Tribal lands will also get more support, considering the challenges of building broadband networks in those areas.

The third set of reforms offers stability for those rate-of-return carriers that choose to remain on legacy, cost-based support (that is, those that declined model-based support then and will do so again). During the previous Administration, these carriers faced a serious lack of predictability in their budgets—unpredictability that delayed new deployments. Today, we ensure that sufficient funding will be available going forward. But again, like their cohorts choosing model-based support, with increased funding comes increased responsibility. These carriers too will also have to deploy 25/3 Mbps service to new locations in their service areas.

So what is the bottom line? As a result of today's Order, many more rural Americans will have access to high-speed broadband service that will enable them to fully participate in the digital economy—entrepreneurship, telemedicine, precision agriculture, online education, and more.

I'd like to extend my gratitude to the staff that worked tirelessly on this item, from the Wireline Competition Bureau, Pam Arluk, Ted Burmeister, Joseph Calascione, Talmage Cox, James Eisner, Justin Faulb, Victoria Goldberg, Athula Gunaratne, Lisa Hone, Jesse Jachman, Katie King, Sue McNeil, Alex Minard, Kris Monteith, Ryan Palmer, Eric Ralph, Steven Rosenburg, Doug Slotten, Gilbert Smith, Joe Sorresso, Craig Stroup, and Suzanne Yelen; and from the Office of General Counsel, Malena Barzilai, Ashley Boizelle, Tom Johnson, Rick Mallen, Linda Oliver, and Bill Richardson.

STATEMENT OF
COMMISSIONER MICHAEL O'RIELLY

Re: *Connect America Fund*, WC Docket No. 10-90; *ETC Annual Reports and Certifications*, WC Docket No. 14-58; *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135; *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92.

Throughout my tenure as a Commissioner, and as one of the leaders of the 2016 rate-of-return reform order, I have been incredibly engaged in pushing for Universal Service Fund (USF) reforms to promote broadband deployment in unserved areas while minimizing burdens on ratepayers. Some principles I have long-championed are advanced by this item, particularly, budgetary sufficiency and predictability for legacy and Alternative Connect America Cost Model (A-CAM) carriers.

This item additionally includes a new model offer for legacy carriers, known as A-CAM II. As I have made clear in the past, I am a strong proponent of adoption of the cost model. While not perfect by any means, model-based support is a reasonable effort to efficiently provide necessary subsidies while reducing incentives of some to exploit rate-of-return regulation by gold-plating networks and over-spending on operating expenses. To maximize migration from rate-of-return regulation, this item offers legacy carriers a very generous deal in return for electing model-based support. In fact, practically everyone is invited to the A-CAM II "party," be it model winners or losers; carriers that have deployed 10/1 Mbps service to more than 90% of eligible locations; census blocks where fiber-to-the-premises or cable has already been deployed; and locations where unsubsidized competitors provide voice and broadband service under 25/3 Mbps. Given the potential for increased USF support, it's hard to imagine what more we could waive to further sweeten the deal, or a circumstance in which a model winner wouldn't take the offer. While I have apprehensions about the implications of A-CAM II, I am willing to support these specific policy cuts in order to approve the rest of the item, and I thank Bureau staff for responding to my request for budgetary data on the different possible election outcomes. This deliberative process was helpful in determining the worst-case scenario for budgetary purposes — in other words, if only model winners take the plunge — which would result in expanding the rate-of-return portion of the High Cost program by approximately 16 percent or $400 million per year.

Apart from the open-ended nature of the deal, I do have concerns related to our apparent endorsement of Form 477 data to identify areas of competitive overlap and the decision to forego a challenge process in adopting A-CAM II parameters. While a challenge process can be administratively burdensome and would create delays in implementing the second model offer, relying on the Form 477 data is hard to square with our ongoing proceeding on improving our broadband coverage data. I have been a longtime skeptic of this data to the extent that it is being used for purposes for which it was not designed or intended. As an improvement, I thank the Chairman for adding questions to the Further Notice, at my behest, on whether to hold a challenge process prior to auctioning support in substantially overlapped areas. Given the potential for a carrier's total loss of USF support, the question of whether to hold a challenge process requires special consideration in that context. Ultimately, a challenge process is not a panacea, but it's better than blindly supporting Form 477 data as is.

Additionally, I am not convinced that a Tribal Broadband Factor is the best method, especially as this one is formulated, to address the challenges of deploying broadband on Tribal lands. First, the case for disparate treatment is not immediately evident: Tribal lands are certainly not the only areas where Americans face higher levels of poverty, and, moreover, certain Tribal communities are relatively wealthy, and some have deployed broadband to the vast majority of residents. As recognized in the 2018 Tribal OpEx Order, increasing support for the mere fact of serving a Tribal area and without basis in need constitutes an inefficient use of scarce USF dollars. The model does not make granular assumptions about poverty levels, and it is unfair to make an exception only in the Tribal context. We also have a separate low-income support mechanism, and it is inappropriate to confound low-income concerns with high-cost deployment policy, especially to such an extent and with so little debate or input. And, second, if greater cost of broadband deployment on Tribal lands is due to higher barriers to entry and permitting costs artificially imposed by Tribal governments, I cannot think of a worse basis for including a Tribal Broadband Factor. Rewarding Tribal governments for imposing artificial barriers and engaging in rent-seeking will only encourage the creation of further obstacles to broadband deployment—and ultimately hurt Tribal communities' prospects for broadband access.

Despite some reservations, I am grateful for the strides we make today in delivering certainty and sufficiency to the budget for rate-of-return carriers. While a significant portion of this item is devoted to buying higher speeds for those who may already have some degree of broadband, we must keep in mind that substantial areas of the country remain without service at all. With the resolution of this item, I look forward to finally turning the Commission's focus next year to implementing the long-awaited Remote Areas Fund auction, as required by the *USF/ICC Transformation Order*, to bring broadband service to the costliest and hardest areas to serve. Connecting the unserved can now be our foremost priority, and much more work remains in furtherance of that goal.

I vote to approve.

STATEMENT OF
COMMISSIONER BRENDAN CARR

Re: *Connect America Fund*, WC Docket No. 10-90; *ETC Annual Reports and Certifications*, WC Docket No. 14-58; *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135; *Developing a Unified Intercarrier Compensation Regime*, WC Docket No. 01-92.

Two months ago, I visited a community that Business Insider lists as one of eleven cities "millennials have moved to in droves over the past few years." It has a bespoke and popular bike share network, of course. And not surprisingly, it has a thriving tech and startup scene with gigabit speed broadband. In fact, year over year, venture capital funding just increased by nearly a billion dollars across the region. It's not Seattle or San Jose. It's Fargo, North Dakota, which is part of the Midwest's growing "Silicon Prairie."

In Fargo, I met with entrepreneurs in one of the cities' startup spaces who are developing IoT and other cutting-edge technologies—one project they're working on is setting up the first fully autonomous farm. Up the road, I visited one of country's leading research and development facilities for drones and unmanned aerial systems. And just down the Red River, I met with some of the largest job creators in the small town of Abercrombie. This included a visit with Tom and Rory, who run a food processing and packaging plant. They told me the same thing I heard on every stop across the Silicon Prairie—their jobs and their businesses simply would not be there today without high-speed Internet access. So when we talk about bringing more broadband to more Americans, we're talking about all of this innovation and all of this economic opportunity that broadband enables.

Our Universal Service Fund is a key part of the solution in communities like this—communities where low population densities and high deployment costs erode the private sector business case. That's why my office pushed hard for the Commission to adopt this order and to provide the sufficient and predictable levels of support that ISPs serving rural America need to deploy broadband. So I would like to thank the Chairman for bringing this order forward and taking my feedback into account in doing so. In particular, I'm glad that:

- We provide revised model offers, which will enable greater deployment in areas served by the first A-CAM offer;
- We give more carriers an opportunity to opt into a second A-CAM offer, which will allow more carriers to take advantage of incentive-based regulation;
- We provide stability and predictability to legacy rate-of-return carriers by adopting a long-term term budget accompanied by increased deployment benchmarks; and
- By increasing the deployment benchmarks to 25/3 for all rate-of-return carriers, we will bring the benefits of high-speed broadband to even more rural communities across the country.

This decision will have a real impact on extending broadband and economic opportunity in rural communities throughout the country. So I want to thank the staff of the Wireline Competition Bureau as well for your hard work on this item. It has my full support.

STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL

Re: *Connect America Fund*, WC Docket No. 10-90; *ETC Annual Reports and Certifications*, WC Docket No. 14-58; *Establishing Just and Reasonable Rates for Local Exchange Carriers*, WC Docket No. 07-135; *Developing a Unified Intercarrier Compensation Regime*, CC Docket No. 01-92.

Providing broadband to the most remote and rural areas of this country is not for the faint of heart. Consumers and businesses can be spread few and far between. Terrain can be rough and the deployment season can be brutally short. The economics are hard and the business case is not always easy. But it is a fact that we are stronger when we are connected to one another. Building on this simple principle, eight years ago the Federal Communications Commission set out to modernize its universal service program. It created the Connect America Fund—a new way to support both phone and broadband service in remote and rural communities.

Among other things, this effort included a new method for small carriers serving rural communities to secure support through a model-based system. Today, the FCC updates the support offered to those carriers dependent on this system. It also provides a new model-based offer for carriers that rely on the legacy support system that predates our Connect America Fund reforms. It updates the agency's budget for universal service policy as well as broadband deployment obligations for some carriers. Finally, it asks about additional changes that may need to be made to universal service support systems to ensure it is updated for future broadband demand. This is a smart collection of updates to a cherished program built on the sound principle of connecting us all. It has my full support.