**Before the**

Federal Communications Commission

Washington, D.C. 20554

|  |  |  |
| --- | --- | --- |
| In the Matter of  Promoting Telehealth in Rural America | **)**  **)**  **)**  **)**  **)** | WC Docket No. 17-310 |

Further Notice of Proposed Rulemaking

**Adopted: February 18, 2022 Released: February 22, 2022**

**Comment Date: [30 days after publication in the Federal Register]**

**Reply Comment Date: [60 days after publication in the Federal Register]**

By the Commission: Chairwoman Rosenworcel and Commissioners Carr and Starks issuing separate statements.

Table of Contents

Heading Paragraph #

I. Introduction 1

II. Background 2

III. Discussion 15

A. Determining Accurate Rates in the Telecom Program 16

1. Defining cost factors and service technologies for a rate setting mechanism 16

2. Selecting a rate determination mechanism 44

3. Potential transition period 63

B. Reforming the Internal Cap on Multi-Year Commitments and Upfront Payments 64

C. Harmonizing Telecom Program Invoicing With HCF Program Invoicing 72

D. Application Processing, Funding Decisions, and Appeals of Decisions 77

E. Digital Equity and Inclusion 79

IV. Procedural Matters 80

V. Ordering Clauses 90

APPENDIX A – PROPOSED RULES

APPENDIX B – REGRESSION MODEL TECHNICAL ANALYSIS

APPENDIX C – INITIAL REGULATORY FLEXIBILITY ANALYSIS

# Introduction

1. In this Further Notice of Proposed Rulemaking (Further Notice), we propose and seek comment on several revisions to the Commission’s Rural Health Care (RHC) Program rules designed to ensure that rural healthcare providers receive funding necessary to access the broadband and telecommunications services necessary to provide vital healthcare services while limiting costly inefficiencies and the potential for waste, fraud, and abuse. The RHC Program provides vital support to assist rural health care providers with the costs of broadband and other communications services. Reliable high speed connectivity is critical for rural health care providers to serve patients in rural areas that often have limited resources, fewer doctors, and higher rates for broadband and telecommunications services than urban areas. Recent years have also seen an explosion in demand for telehealth services, a trend accelerated by the COVID-19 pandemic, that has increased the bandwidth needs of rural health care providers. Today we seek comment on proposed revisions to the RHC Program’s funding determination mechanisms and administrative processes in an effort to improve the accuracy and fairness of RHC Program support and increase the efficiency of program administration.

# Background

1. The RHC Program consists of two component programs: (1) the Telecommunications (Telecom) Program; and (2) the Healthcare Connect Fund (HCF) Program. The Commission established the Telecom Program in 1997 to subsidize the difference between urban and rural rates for telecommunications services.[[1]](#footnote-3) Under the Telecom Program, eligible rural health care providers can obtain rates on telecommunications services in rural areas that are reasonably comparableto rates charged for similar services in corresponding urban areas.[[2]](#footnote-4) The level of support in the Telecom Program is the difference between the rural rate and the urban rate.[[3]](#footnote-5) In 2012, the Commission established the HCF Program to promote the use of broadband services and facilitate the formation of health care provider consortia that include both rural and urban health care providers.[[4]](#footnote-6) The HCF Program provides a flat 65 percent discount on an array of advanced telecommunications and information services such as Internet access, dark fiber, business data, traditional DSL, and private carriage services.[[5]](#footnote-7)
2. In the 2019 *Promoting Telehealth Report and Order*, the Commission adopted several reforms to RHC Program rules and procedures.[[6]](#footnote-8) Reforms included new rules to ensure competitive bidding is fair and open,[[7]](#footnote-9) rules for prioritizing RHC Program support for the rural areas that need it most in the event that demand exceeds available funding,[[8]](#footnote-10) and Program-wide rules and procedures to simplify application processes and provide clarity regarding procedures.[[9]](#footnote-11) Specifically, in the Telecom Program, the Commission implemented new rules and procedures to simplify the calculation of urban and rural rates used to determine the amount of support available to health care providers.[[10]](#footnote-12) The Commission also directed the Universal Service Administrative Company (USAC) to establish a publicly available database listing the eligible services in the Telecom Program, median urban and rural rates for services by State, and underlying rate data used to determine the median rates (Rates Database).[[11]](#footnote-13)
3. *Historical Rates Determinations in the Telecom Program.* Under the Commission’s previous rules applicable through funding year 2020, three methods were used for calculating rural rates in the Telecom Program. Depending on the circumstances, the rural rate would be: (1) the average of rates that the carrier actually charged to other non-health care provider commercial customers for the same or similar services provided in the rural area where the health care provider is located (Method 1);[[12]](#footnote-14) (2) if the carrier did not have any commercial customers in the health care provider’s rural area, the average of tariffed and other publicly available rates charged by other service providers for the same or similar services provided over the same distance in the rural health care provider’s area (Method 2); or (3) if there were no such rates or the carrier reasonably determined that those rates would be unfair, a cost-based rate that was approved by the Commission for interstate services (or the relevant state commission for intrastate services) (Method 3).[[13]](#footnote-15) A carrier seeking approval of a rural rate under Method 3 was required to provide “a justification of the proposed rural rate that includes an itemization of the costs of providing the requested service.”[[14]](#footnote-16)
4. The Commission’s previous rules required that urban rates in the Telecom Program “be a rate no higher than the highest tariffed or publicly-available rate charged to a commercial customer for a functionally similar service in any city with a population of 50,000 or more in that state.”[[15]](#footnote-17) Health care providers were also required to document the urban rate reported with “tariff pages, contracts, a letter on company letterhead from the urban service provider, rate pricing information printed from the urban service provider’s website or similar documentation showing how the urban rate was obtained.”[[16]](#footnote-18) Alternatively, applicants could use, without any additional documentation, the “safe harbor” urban rate listed for a limited number of services in certain states on USAC’s website.[[17]](#footnote-19)
5. In the 2019 *Promoting Telehealth Report and Order*, the Commission found that although well-intended, these methods for determining rates in the Telecom Program were susceptible to fraud and abuse by bad actors,[[18]](#footnote-20) caused a significant drain on the limited resources of the Telecom Program,[[19]](#footnote-21) and were difficult to administer.[[20]](#footnote-22) Based on its review of the record and program data, the Commission found that the previous methodology for determining urban rates did not consistently produce reasonably comparable urban rates as intended and reform was necessary to more accurately reflect the rates actually being charged in urban areas of the state.[[21]](#footnote-23) Similarly, the Commission also found that the lack of consideration of competitors’ offerings in averaging the rates of identical or similar services led to artificially inflated rural rates that did not reflect the true rate of service available at the health care provider’s location.[[22]](#footnote-24)
6. The Commission also found that rural rates were increasing and urban rates were decreasing over time, causing an increase in program expenditures.[[23]](#footnote-25) Based on program data, the rise in rural rates was attributed to more than just a “health care provider’s location, demand for and availability of higher speed services, and limited access to high speed middle-mile transport capacity.”[[24]](#footnote-26) Instead the Commission found that much of the increase in rural rate results came from the “lack of adequate transparency, standardization, and enforceability” in the previous approach for determining rural rates.[[25]](#footnote-27) Placing responsibility for determining urban and rural rates in the hands of health care and service providers led to potentially arbitrary and substantial inconsistencies in rates for similar services, depending on the health care and service provider involved.[[26]](#footnote-28)
7. *Adoption of Rates Database*. The Commission revised the process for determining urban and rural rates by instituting rules to determine rates using median rates in a publicly available database.[[27]](#footnote-29) The Rates Database lists the median urban rate and rural rate for those services eligible for Telecom Program support in each state and the underlying rate data used to determine the median rates, and was originally scheduled to take effect in funding year 2021.[[28]](#footnote-30) The urban and rural rates were based on available rates (e.g., rates posted on service providers’ websites, rate cards), publicly available contracts (i.e., state master contracts), undiscounted E-Rate Program data, tariffs (i.e., intrastate tariffs filed with state commissions, FCC’s Electronic Tariff Filing System), and prior funding year Telecom Program rate data.[[29]](#footnote-31) In addition to adopting the Rates Database, the Commission applied the existing definition of “rural area”[[30]](#footnote-32) to subdivide rural areas into geographical tiers it designated as Extremely Rural, Rural, and Less Rural.[[31]](#footnote-33) The Commission bifurcated the Extremely Rural tier for Alaska to create a Frontier tier for areas that are inaccessible by road based on record evidence of the specific challenges carriers sometimes face in Alaska.[[32]](#footnote-34)
8. An applicant’s rural rate in the Rates Database is the median of all rates for services functionally similar to the requested service in the applicant’s state and rurality tier.[[33]](#footnote-35) Applicants are required to use the lower of either the rural rate in the Rates Database or the rural rate included in a service agreement between the health care provider and the service provider.[[34]](#footnote-36) An applicant’s urban rate is the median of all available rates for functionally similar services in urbanized areas of the state as identified in the Rates Database.[[35]](#footnote-37) At the time the Commission adopted these rules, it did not know what the urban and rural rates generated by the Rates Database would be.
9. *Issues Identified with the Rates Database and Associated Rurality Tiers*. After the Rates Database was made available to the public on July 1, 2020,[[36]](#footnote-38) anomalies became apparent. A primary assumption underlying the creation of the Rates Database and associated rurality tiers was that, in general, the cost to provide services increases as the level of rurality increases and overall rates tend to increase (while rates per megabit per second tend to decrease) as bandwidth increases.[[37]](#footnote-39) After conducting an examination of the initial median rural rate calculations in the Rates Database, the Bureau found anomalies that could result in inadequate or inconsistent Telecom Program support, such as lower median rural rates in more rural areas of the state or lower median rural rates for higher bandwidth services.[[38]](#footnote-40)
10. For example, in Alaska, for a 10 Mbps connection, the rural rate for a dedicated data transmission service in the Extremely Rural tier ($3,125) was lower than the rural rate for the Less Rural tier ($3,168) for that service even though it would likely cost the service provider more to serve locations in the less densely populated Rural tier (see Table 1). And in California, the Rates Database showed a rural rate for a 20 Mbps connection ($1,351) for a dedicated data transmission service as higher than the rural rate for a 50 Mbps connection ($1,308) for that service (see Table 2).

**Table 1: Alaska Rates Database Results Sample**[[39]](#footnote-41)

Dedicated Data Transmission Services

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Download Speed | Frontier | Extremely Rural | Rural | Less Rural | Urban |
| 10 Mbps | $27,494 | $3,125 | $3,125 | $3,168 | $240 |
| 20 Mbps | $47,536 | $3,181 | $19,862 | N/A | $309 |
| 50 Mbps | $21,333, | $6,012 | $21,333 | N/A | $538 |

**Table 2: California Rates Database Results Sample**

Dedicated Data Transmission Services

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Download Speed | Extremely Rural | | Rural | Less Rural | Urban |
| 10 Mbps | | $1,652 | $1,535 | $1,618 | $1,128 |
| 20 Mbps | | $2,154 | $1,351 | $1,046 | $1,268 |
| 50 Mbps | | $2,623 | $1,308 | $1,706 | $1,579 |

1. As a result of the anomalies and inconsistencies in the rate calculations observed in Alaska, on January 19, 2021, the Bureau waived the requirement to use the Rates Database for determining rural rates for health care providers in the State of Alaska for funding year 2021 and, unless the Commission addressed petitions for reconsideration of the *Promoting Telehealth Report and Order* prior to January 19, 2022, for funding year 2022.[[40]](#footnote-42)
2. On January 25, 2021, the Schools, Health & Libraries Broadband (SHLB) Coalition asked the Commission to extend the *Alaska Rates Database Waiver Order* relief to health care providers nationwide.[[41]](#footnote-43) The SHLB Coalition noted that in states such as Georgia, Kentucky, Ohio, Tennessee, Texas, Arizona, Virginia, and West Virginia, the Rates Database frequently yielded a median urban rate that was above one or more of the rural tier rates in that state.[[42]](#footnote-44) SHLB also argued that the rates in the Rates Database did not necessarily “reflect changes in bandwidth, as the Bureau noted was the anticipated result.”[[43]](#footnote-45)
3. Due to the anomalies and inconsistencies that exist outside of Alaska, the Bureau further expanded the waiver granted in the *Alaska Rates Database Waiver Order* to apply nationwide, delaying implementation of the Rates Database for rural rates for all health care providers that apply for Telecom Program support.[[44]](#footnote-46) The Bureau also issued a waiver delaying implementation of the Rates Database for urban rates.[[45]](#footnote-47) Under these waivers, health care providers may use urban and rural rates approved in the previous three funding years or, if no such rates are available, may determine urban and rural rates using the previous rules.[[46]](#footnote-48) These waivers apply for funding year 2021 and funding year 2022.[[47]](#footnote-49) Without additional Commission action, the requirement to use the Rates Database to determine urban and rural rates will be restored beginning in funding year 2023.

# Discussion

1. In this Further Notice, we seek comment on options for determining support in the Telecom Program and propose revisions to Telecom Program forms to improve the quality and consistency of Telecom Program data. We also seek comment on an alternative rate determination mechanism to the Rates Database to improve the accuracy of rates in the Telecom Program. Additionally, we propose to limit the applicability of the internal funding cap on upfront payments and multi-year commitments to instances in which demand exceeds available funding; to target funding for the current funding year over future years when the internal cap is exceeded; and to simplify the invoicing process in the Telecom Program while strengthening protections against waste, fraud and abuse. We also seek comment on ways to expedite and streamline the application and funding commitment process.

## Determining Accurate Rates in the Telecom Program

### Defining cost factors and service technologies for a rate setting mechanism

1. As an initial matter, we examine how to classify the inputs used to determine rates in the Telecom Program. To determine rates that reflect the cost of delivering service to health care providers, the data inputs used to determine rates must capture, consistent with section 254(h)(1)(A) of the Act, which health care providers are in “comparable rural areas,” as well as which Telecom Program supported services are “similar.”[[48]](#footnote-50) We seek therefore comment on several inputs related to rurality classifications for health care providers and categorization of eligible services.

#### Rurality classifications for health care providers

1. We seek input on how to evaluate rurality to determine what areas are comparable for purposes of determining rates.[[49]](#footnote-51) First, we examine how the Commission defines rurality for the RHC Program, proposing to maintain the current standard for “rural” used to determine whether a health care provider may participate in the RHC Program. We then seek comment on what factors to consider to differentiate rural areas.
2. *Defining “Rural Area” for the Purposes of Program Participation*. Support under section 254(h)(1)(A) is limited to services provided to persons who reside in “rural areas.”[[50]](#footnote-52) The RHC Program employs a definition of “rural area” that relies upon a healthcare provider’s location relative to the Census Bureau’s Core Based Statistical Area designation.[[51]](#footnote-53) In the 2019 *Promoting Telehealth Report and Order*, the Commission declined to adopt a new definition of “rural area” for the RHC Program because the existing definition served the needs of the program.[[52]](#footnote-54) The Commission also explained that changes to the definition could cause uncertainty and eligibility issues for program participants.[[53]](#footnote-55) We believe these justifications for maintaining the existing definition of “rural area” remain applicable today and therefore propose to maintain the current definition of “rural area” for the RHC Program.
3. Despite our belief that the existing definition of “rural area” remains applicable today, we seek comment on whether our proposal to maintain the current definition of “rural area” is appropriate for purposes of RHC Program participation. Does our current definition meet the needs of the RHC Program for purposes of eligibility? Are there any alternative definitions that would be more appropriate? For instance, should we adopt a definition that does not rely (or does not exclusively rely) on a healthcare provider’s location in relation to relatively densely settled areas, and would such a definition capture areas that reasonably could be viewed as “rural” within the meaning of section 254(h)(1)(A)? Until 2004, the Commission followed the definition used by the Federal Office of Rural Health Policy (FORHP) located within the Health Resources and Services Administration.[[54]](#footnote-56) Are there any definitions used by other government agencies, such as FORHP, or medical organizations that would be more appropriate at this time for the RHC Program? Are there definitions that take into account the geographic features that are unique to Alaska? Commenters are encouraged to describe the effects on Program participants of any potential modifications to our current definition. After the Commission adopted a new standard for “rural area” in 2004, it permitted health care providers that were participating in the RHC Program under the previous definition but did not qualify as rural under the new definition to continue to participate in the RHC Program.[[55]](#footnote-57) If we maintain our current definition, should we continue to allow health care providers that do not fall under the current definition, but who were grandfathered under the old definition, to participate in the RHC Program? In the event we adopt a new definition of “rural area” that does not encompass health care providers that fall under the current definition, should we permit those providers to continue participating in the RHC Program?
4. *Identification of Geographic Cost Factors*. We next turn to how to identify methods for further classifying gradients or tiers of rurality and what already-existing tools might be used to differentiate gradients or tiers of rurality for the purpose of setting rural and urban rates in the Telecom Program.[[56]](#footnote-58) Under section 254(h)(1)(A) of the Act, carriers must be reimbursed using rates for similar services provided to other customers in “comparable rural areas” in the state.[[57]](#footnote-59) In the *Promoting Telehealth Report and Order*, the Commission amended its definition of “comparable rural areas” from just the areas immediately surrounding the health care provider to also include similar rural areas.[[58]](#footnote-60) We propose to maintain a definition of “comparable rural areas” that includes the areas immediately surrounding the health care provider and also similar areas within the state and agree with the Commission’s previous determination that such an approach reflects a faithful interpretation of the statutory obligation to reimburse carriers for similar services for other customers in “comparable rural areas” in the state.[[59]](#footnote-61) We seek comment on this approach.
5. We also seek comment on the factors that we should consider in determining what are “comparable rural areas” when establishing rates for telecommunication services. Under our existing rules, we use rurality tiers to determine the comparable rural areas in a state or territory.[[60]](#footnote-62) In the *Promoting Telehealth Report and Order*, the Commission decided that the determination of what rural areas are “comparable” should be based on the factors impacting the cost to provide services, and adopted rurality tiers based on the assumption that the costs to provide telecommunication services increases as the population density of an area decreases.[[61]](#footnote-63) We continue to believe that grouping health care providers by geographic area is the best way to ensure that carriers are compensated based on services provided to health care providers in “comparable rural areas” and that it is appropriate to consider comparability of rural areas by looking at the factors impacting cost and seek to identify what those factors might be. In addition to population density, distance to the nearest metropolitan area, topography, and existing infrastructure may impact the cost to provide telecommunications services as well. We seek comment on the extent to which population density, distance, topography, and existing infrastructure could be factors to consider when determining “comparable rural areas.” To what extent may these factors affect rates for telecommunications services? Are there other geographic cost factors we should consider that affect telecommunication service rates? Are there geographic cost factors specific to Alaska that we should consider if we elect to establish specific rules for “comparable rural areas” in Alaska?
6. We seek comment on whether establishing specific rurality metrics for each health care provider based on multiple geographic cost factors could more accurately determine prices available to health care providers in rural areas. Specifically, we seek comment on whether measuring a combined set of factors such as population density, distance to a nearby urban area, topography, and existing infrastructure would be effective in establishing levels of rurality that more accurately reflect the cost of service. How can the Commission account for variances in health care providers’ location and topography?[[62]](#footnote-64) Are there any other specific cost factors we should consider based on the existing data that are more closely related to or affected by rurality? Finally, given the unique geography and topography of Alaska,[[63]](#footnote-65) are there specific cost factors that impact rates in Alaska only?
7. *Applying Geographic Cost Factors to Rurality Tiers*. Next, we consider whether there are methods to delineate rurality that are preferable to the rurality tier system based on Core Based Statistical Areas adopted by the *Promoting Telehealth Report and Order*. One of the primary reasons for adopting the rurality tiers in the Rates Database was to ensure that rates increased as the level of rurality increased, to reflect a presumed increase in cost of providing service as rurality increased.[[64]](#footnote-66) However, outputs of the Rates Database revealed examples of lower median rural rates in more rural tiers than in less rural tiers (i.e., higher rates in the Rural and Less Rural tiers than in the Extremely Rural and Frontier tiers), and higher median rural rates in less rural tiers than in more rural tiers (i.e., lower rates in the Extremely Rural and Frontier tiers than the Rural and Less Rural tiers).[[65]](#footnote-67) These anomalies raise questions about whether the rurality tiers based on Core Based Statistical Areas accurately group comparable rural areas for purposes of determining telecommunications rates. We seek comment on whether our current rurality tiers used to determine “comparable rural areas” are appropriate for determining accurate and reasonable rates. Despite the anomalies, did the Rates Database deliver rates that are “rates for similar services provided to other customers in comparable rural areas in that State” as required by the Act?[[66]](#footnote-68) Could our current rurality tiers be improved by subdividing them? If so, how could we do so in an objective and administratively feasible way? Are there other explanations besides the classification of rurality tiers for these anomalies? For example, would these anomalies disappear or dissipate if we had better controls for different services or for different service level agreements?
8. With respect to anomalies in Alaska, rates for the Rural tier are consistently higher than rates in the Extremely Rural tier due primarily to the state’s Census Bureau categorizations. Most of Alaska is not part of a Core Based Statistical Area (CBSA) and therefore Extremely Rural.[[67]](#footnote-69) Juneau and Ketchikan are located in a CBSA and are defined as Rural under Telecom Program rules because they do not contain any Urban Area with a population of 25,000 or greater. However, these areas are isolated in the southeast portion of Alaska, are not necessarily connected by roads despite being located in a CBSA, and are therefore relatively expensive to serve. Would adjusting rurality tiers so that health care providers located in the Juneau and Ketchikan CBSAs fall into the Extremely Rural tier resolve some anomalies? Are there other adjustments that can be made to address this issue?
9. We also seek comment on replacing our current rurality tiers with alternative methods of determining degrees of rurality, such as the Index of Relative Rurality (IRR).[[68]](#footnote-70) The IRR is a “continuous, threshold-free, and unit-free measure of rurality.”[[69]](#footnote-71) IRR addresses degrees of rurality instead of simply designating an area as urban or rural.[[70]](#footnote-72) The IRR focuses on four dimensions of rurality, which include size, density, remoteness, and built-up area,[[71]](#footnote-73) and has three major advantages over typology-based rurality measures. First, it is “spatially flexible” in that it is not confined to a particular spatial scale such as counties but can be designed for any spatial units such as townships or census tracts;[[72]](#footnote-74) second, it is a relative and continuous measure and thus treats rurality as a concept rather than a traditional classification;[[73]](#footnote-75) and lastly it is easier to analyze than threshold-based typologies.[[74]](#footnote-76) We seek comment on using the IRR to replace our current rurality tier system. What would be the advantages and disadvantages of using the IRR to evaluate rurality? What groupings of IRR scores would be appropriate for evaluating rurality tiers? Is the IRR spatially flexible enough to account for Alaska’s unique geography? If not, do commenters have specific ideas on how we might build off the IRR to accommodate Alaska?
10. Alternatively, would the Rural Urban Commuting Area (RUCA) codes be preferable to determine rurality tiers? The RUCA codes are a census tract-based classification scheme that uses measures of population density and urbanization in combination with commuting information to characterize all of the nation's census tracts regarding their rural and urban status and relationships to one another.[[75]](#footnote-77) One of the reasons the Commission stopped using FORHP’s definition of “rural area” in 2004 was because part of FORHP’s methodology changed to incorporate the RUCA methodology which at the time failed to incorporate the most recent census data.[[76]](#footnote-78) Since their creation, the RUCA codes have been updated several times with new Census data. The most recent RUCA codes were created by the FORHP, the University of North Dakota Center for Rural Health, and the United States Department of Agriculture (USDA) Economic Research Service and are based on data from the 2010 decennial census and the 2006-10 American Community Survey.[[77]](#footnote-79) We seek comment on using the RUCA codes to replace our current rurality tiers. What would be the advantages and disadvantages of using the RUCA codes to evaluate rurality? Are the RUCA codes granular enough for Alaska given its unique geography and topography?
11. We seek comment on other known methods that could more accurately determine degrees of rurality. Are there any other objective and administratively feasible methodologies we should consider? If so, are these methods appropriate for all states, including Alaska? If we maintain our current definition of “rural” for eligibility purposes, how will these new methods interact with our current definition? For example, are there any scenarios in which a particular area is rural under our current definition but would not be sufficiently rural under one of these other methodologies to receive funding? We ask that commenters describe alternate ways to evaluate rurality and, when possible, provide data showing whether these alternatives accurately reflect geographic cost factors in telecommunications rates.
12. We also seek comment on whether we should eliminate rurality tiers altogether and establish rates based on an applicant’s census tract information. Examples of such information could include population and business density, measures of terrain and topography such as elevation and slope, measures of distance from urban areas, percentage of built-up areas, etc. Such an approach would be similar to the IRR approach, but instead of producing an index, would directly estimate the impact of various dimensions of rurality on service prices in a given location. We seek comment on the feasibility of using specific census tract information to evaluate rurality and determine rates. What are the benefits of using census tract information to determine rates? Do commenters believe that moving away from rurality tiers and relying on census-tract information would more accurately determine reasonable rates? If so, should such an approach be incorporated into the nationwide pricing model we seek comment on below? We also seek comment on how we could use specific census tract information to determine rates if the Commission adopts such an approach. Should we average rates among all “rural” census tracts within a state to determine rates? Should we group census tracts that have similar data to evaluate rurality without using specific tiers? How should we group the data? We encourage commenters to suggest creative ways to evaluate rurality and establish rates based on an applicant’s census tract information.
13. *Alaska-only Rurality Tiers.* In light of Alaska’s unique topography, we seek comment on whether establishing distinct tiers for Alaska is appropriate for purposes of the Telecom Program. If we adopt one of the alternate methods discussed above, will it be appropriate for Alaska, even if it is functional for other states? Should we implement an entirely different method for evaluating rurality for Alaska than for other states? What specific dimensions of geography and rurality are unique to Alaska that would need to be accounted for in any Alaska-specific methodology? In the 2019 *Promoting Telehealth Report and Order*, the Commission created a Frontier tier unique to Alaska, comprised of off-road areas in the state.[[78]](#footnote-80) The Commission declined, however, to further sub-divide off-road communities in Alaska for determining comparable rural areas.[[79]](#footnote-81) We recognize that, even in Alaskan off-road communities, different levels of communications infrastructure may exist resulting in different costs for providing and obtaining services.[[80]](#footnote-82) If we maintain the current rurality tiers, should we further sub-divide Alaskan off-road areas to capture these variances in service deployment? If so, what methodology could we use that is objective, administratively feasible, and transparent?
14. *Funding Prioritization.* In the event we adopt a new rurality tier system or an alternative to rurality tiers altogether, we seek comment on whether the new system should also be used for prioritization. When program demand exceeds available funding, the Commission’s current prioritization system prioritizes health care providers in Medically Underserved Areas and health care providers in more rural rurality tiers using the Commission’s current methodology for evaluating rurality.[[81]](#footnote-83) If we change the current methodology for evaluating rurality, should that new methodology replace the current rurality tiers in the prioritization system? Commenters that oppose using the same methodology for evaluating rurality and prioritization should provide viable alternative ways to prioritize funding.

#### Categorizing service technologies purchased by health care providers

1. In this section, we examine the categorization of services supported by the Telecom Program. We first seek comment on approaches to analyzing existing data that would result in more accurate urban and rural rates. We then seek comment on potential changes to the Telecom Program’s categorization of service technologies that could further improve the accuracy of urban and rural rates in future funding years.
2. The Telecom Program subsidizes the difference between the urban rate for a service in the health care provider’s State, which must be “reasonably comparable to the rates charged for similar services in urban areas in that State,” and the rural rate, which is “the rate for similar services provided to other customers in comparable rural areas” in the State.[[82]](#footnote-84) Correct categorization of “similar services” is therefore critical to ensuring that the rates charged to rural health care providers and supported by Telecom Program funds align with the cost of delivering those services and that health care providers receive equitable, consistent funding. Accurate categorization also helps to eliminate the potential for waste and gamesmanship in the Program by, for example, removing incentives for service providers to mischaracterize lower cost services as similar to higher cost services in order to increase Telecom Program funding.
3. The Commission currently analyzes the similarity of services based on whether the services are “functionally similar as viewed from the perspective of the end user,” rather than assessing similarity based on technical similarities of the technologies used to deliver service.[[83]](#footnote-85) If a rural health care provider purchases a service that provides a similar user experience to another service, then regardless of underlying media, protocol(s), implementation, or commercial sales/product name, we consider the two services to be functionally similar. For example, if a rural health care provider purchases a satellite service, that service is functionally similar to a DS3 service or Ethernet service from the health care provider’s perspective because the services offer features and functions that provide a similar user experience. We propose to maintain this approach of viewing functional similarity from the perspective of the end user for the purpose of determining urban and rural rates, while also seeking comment below about improving the service details incorporated into the rate determination consideration, and we seek comment on this proposal.
4. In the *Promoting Telehealth Report and Order* the Commission decided to consider services to be “similar” if the advertised speed is 30 percent above or below the speed of the service requested by the health care provider.[[84]](#footnote-86) The Commission explained that a 30 percent range would “provide a sufficiently large range of functionally similar services to enable reasonable rate comparisons.”[[85]](#footnote-87) The Commission also recognized that factors other than bandwidth such as reliability and security are important to accurately characterizing the functional similarity of services and that these enhanced functions may not be part of a best efforts service.[[86]](#footnote-88) The Commission therefore instructed USAC to take into account whether a health care provider requests dedicated service or other service level guarantees when grouping similar services for the purpose of rate determination.[[87]](#footnote-89) The Commission further instructed USAC to expand the scope of its inquiry into similar services beyond telecommunications services to include all services that are functionally similar from an end user perspective regardless of regulatory classification.[[88]](#footnote-90) We propose to continue this technologically-agnostic approach because it is consistent with determining functional similarity from the end user perspective. We seek comment on maintaining this general approach, including considering advertised speeds within a 30 percent range to be similar.

##### Existing service category data

1. We seek comment on how to conduct more effective analysis of Telecom Program data which has been previously reported, or will be reported using the current FCC Form 466, to calculate more accurate urban and rural rates. In the *Promoting Telehealth Report and Order*,the Commission did not elect to consider FCC Form 466 data beyond bandwidth, whether the service is dedicated or best efforts, and whether upload and download speeds are symmetrical or asymmetrical when grouping services within each rurality tier in a State. Is there other data currently available to USAC, or other data that could be provided to USAC such as contract term or volume discounts, that should be factored into rate determination to improve the accuracy of urban and rural rates?[[89]](#footnote-91) Are there adjustments to how USAC groups similar services or otherwise applies data from FCC Form 466 to rate determinations that would improve the accuracy of urban and rural rates?
2. We also seek comment on recategorizing or refining categorizations for existing Telecom Program service data so that the data more accurately identifies the services being purchased by rural health care providers. Our initial analysis of FCC Form 466 submissions reveals that services reported as “Ethernet” or “MPLS” that have similar bandwidths frequently have significantly different monthly rates that likely reflect a wide range of customized bundled services and functionalities that can directly impact total costs. These differences are likely attributable in part to overly broad terminology. Telecom Program forms treat multi-protocol label switching (MPLS) as a service when in fact MPLS is a networking technique for routing packets on the internet.[[90]](#footnote-92) There is no standardized meaning of the commercial term “MPLS,” and therefore it is possible for service providers to label very different services as MPLS. Furthermore, service providers use a wide variety of pricing models for “MPLS” service that make it complicated to compare offerings.[[91]](#footnote-93) Similarly, “Ethernet” services are often generic constructs used to create a broad range of services.[[92]](#footnote-94) As a result, it is likely that some of the significant differences in monthly rates for “Ethernet” services with comparable bandwidths are due to significant differences in the actual services purchased. A health care provider that selects MPLS or Ethernet service may choose specific security, network management systems, performance guarantees, or technical support that in sum cost significantly more than the basic transmission component of the telecommunications service. Factors beyond the components of the selected service, such as geography, distance, and local exchange carrier channel termination rates can impact the rate for end-to-end service.[[93]](#footnote-95) These non-bandwidth related components of the delivered service may be a significant source of the irregular behavior of the Rates Database, creating anomalies from an inappropriate grouping of rates within a bandwidth or rurality tier that reflect services that are not functionally similar despite having similar bandwidths. Consequently, the medians calculated using these groupings are likely to be unreliable. We seek comment on this analysis. To the extent these non-bandwidth components impact rates, how should the Commission reconcile its definition and treatment of end-to-end rates?

##### Revisions to service categories

1. We seek comment on updating the Telecom Program’s categorization of services to more accurately reflect the functionality and cost of services purchased by rural health care providers by incorporating certain key data points into the similar service determination. For example, one rural health care provider might purchase point-to-point transmission services only, while another’s purchase might include, at an additional charge, network management services. Failure to control for such a difference could lead to price anomalies. A more rural low-bandwidth transmission only service could be less expensive than a less rural higher-bandwidth service that includes substantial network management. Similarly, Commission staff’s analysis of service and rate data submitted by rural health care providers in recent Telecom Program funding years indicates that many rural health care providers choose to purchase telecommunications services with different service level agreements (SLAs). Distinguishing between basic transmission and enhanced services and between services with different service level agreements should more accurately group similar services from the perspective of the functionality delivered to the end user.
2. One potential approach to service categorization could be to first separate data transmission from more comprehensive service offerings and then collect a limited, defined set of data points about the service purchased to enable similar services to be more accurately grouped together when determining rural rates. Different services would be comparable if they provide a comparable user experience, regardless of each service’s underlying transmission media, protocol(s), implementation, or commercial sales/product name. This approach would classify services based upon functionality of the service provided, regardless of its commercial name.  For example, rural health care providers completing the FCC Form 466 could identify their service functionality based on three factors: system type, system scope, and additional services. System type covers whether the network is a private network, a managed performance network, or a best effort public network.  System scope covers network endpoints, i.e., how many separate facilities are to be connected, and if more than one endpoint, whether there is a hybrid mix of transmission media (fiber, microwave, satellite) or service (MPLS, SD-WAN, Ethernet).  For each endpoint the following ​factors would be considered: connectivity, i.e., whether it is point-to-point (1:1), point-to-multipoint (1:N), and multipoint-to-multipoint (N:N); facility type, i.e., copper, cable, microwave or other terrestrial wireless, fiber and satellite; bandwidth / speed, separately for download and upload; and billable distance if applicable. Additional services would allow for reporting of premises equipment (managed router service administration); priority maintenance support; security; redundancy / diversity options; availability; failover options; overflow options; data CAP; peak / non-peak options; VoIP; and service level agreements.
3. We seek comment on questions related to this approach. When considering service level agreements, what should we focus on? For example, is it enough to distinguish from all other contracts, contracts that guarantee a minimum amount of downtime and provide liquidated damages or penalty payments when that guarantee is violated? If so, should we distinguish between different downtime minimums and how? If not, what other service level guarantees should we take account of? Should we ignore any service level guarantees which do not come with material liquidated damages or penalty payments?
4. We also welcome recommendations for alternative approaches to service categorization. Proponents of an alternative approach should provide an analysis that seeks to demonstrate why their preferred approach will yield more accurate rural and urban rates than those produced by the Rates Database prior to its waiver. Commenters should also discuss whether their alternative approach would be consistent with viewing the similarity of services from the end user perspective as we propose above.[[94]](#footnote-96)

#### Improving reporting requirements and data quality

1. We seek comment on proposed revisions to Telecom Program forms and corresponding USAC online portals to improve the quality and consistency of Telecom Program data. We seek comment on revisions to the FCC Form 466 as well as any other RHC Program forms, including Healthcare Connect Fund Program forms, that would allow us to collect more detailed service information to allow for more accurate comparisons of rates for similar services consistent with the revised rurality classifications and service categories proposed in this Further Notice. We also seek general comment on the data collected for the Telecom Program. Is there additional data that could improve the accuracy of urban and rural rate determinations? Is there additional data that would be helpful to ensure program integrity and to minimize waste, fraud, and abuse? Is any data collected on FCC Form 466 unnecessary for evaluating the efficacy of Telecom Program expenditures? How should the Telecom Program balance the importance of data quality with concerns about overburdening health care providers with reporting requirements? We also seek comment on adding a process for updating, correcting, or removing unreliable or inappropriate rate observations. Should a process exist for validating the rate data that is included in the Rates Database, and if so, what should it entail?
2. We also seek comment on revisions to current sources of urban and rural rates that are used to populate the rate determination mechanism, be it a database or some alternative. In the *Promoting Telehealth Report and Order*, the Commission established a “broadly inclusive” list of sources for urban and rural rates including rates from “service providers’ websites, rate cards, contracts such as state master contracts, undiscounted rates charged to E-Rate Program applicants, prior funding years RHC Program pricing data, and National Exchange Carrier Association (NECA) tariff rates.”[[95]](#footnote-97) We seek comment on the benefits and drawbacks of continuing to compile rates from multiple sources as opposed to limiting rate data to rates paid by disbursements from the Telecom Program. Does relying on a large sample of rates actually available in the market increase the accuracy of median rates? Would limiting the relevant rates to those submitted by health care providers on FCC Form 466 result in too narrow a sample that is skewed by the lack of competition in many rural areas? How should we balance the benefits of increasing the pool of sample rates with concerns about whether services purchased by other commercial customers are comparable to those purchased by health care providers participating in the Telecom program?[[96]](#footnote-98) If FCC Form 466 reporting requirements are revised to better identify the service being offered, will it still be feasible to compile rates from other sources that do not have similar reporting requirements? We seek comment on whether, if we were to continue to collect data from a large range of sources, we could use statistical tools, such as indicator variables in the proposed nationwide regression model, to control for data sourcing.[[97]](#footnote-99)
3. We also seek comment on whether there is certain information regarding the technical details or components of telecommunications services that rural health care providers cannot access or lack the technical expertise to report to USAC and should therefore be reported by service providers. How can we ensure that health care providers, who may not have technical expertise over the telecommunications services they receive, accurately report the services they receive in the RHC Program? Should we require service providers to submit service information to USAC? How should we balance the value of detailed service data with the importance of minimizing burdens on health care providers and service providers, and also avoiding redundancies in data submissions?

### Selecting a rate determination mechanism

1. In this section we seek comment on the most effective method for determining urban and rural rates in an objective, transparent manner that can be uniformly applied to all Telecom Program applications. We also seek comment on whether, and if so how, to factor market competition into the rate determination mechanism.[[98]](#footnote-100) Are there areas where rural healthcare providers that receive Telecom Program support have competing service alternatives sufficient to enable the Commission to rely on competition to establish reasonable rural rates? If an area has multiple service providers but only one bidder offers to provide service to the rural healthcare provider, should a rate determination mechanism consider the market to be competitive? How should the rate determination mechanism factor in rates for deregulated commercial services that may be similar to services sought through the Telecom Program but are not publicly available?

#### Modifications to the current urban and rural rates database

1. We first seek comment on whether we should retain the requirement that health care providers and service providers use a modified version of the Rates Database to determine urban and rural rates when the current waiver expires. Pursuant to the *Nationwide Rates Database Waiver Order*, sections 54.604(a) and 54.605(a) of the Commission’s rules are waived for funding year 2021 and funding year 2022, delaying implementation of the Rates Database.[[99]](#footnote-101) Should we revise the Rates Database to incorporate the modified rurality classifications and service categorizations described above? Will the revisions to those key data inputs be sufficient to resolve the anomalies that resulted in the waiver?
2. The intent of the rate determination process is to establish transparent, predictable, easy-to-administer rural and urban rates that also fulfill the requirements of section 254 so that Telecom Program subsidies result in rural health care providers paying rates that are reasonably comparable to rates for functionally similar services in urban areas of the health care provider’s state and universal service support to service providers that is based on “rates for similar services provided to other customers in comparable rural areas.”[[100]](#footnote-102) We seek comment on whether modifications could be made to a future iteration of the Rates Database to enhance transparency, predictability, or efficient administration.
3. The Bureau’s waiver of the Rates Database was due primarily to significant anomalies in median rural rate outputs, specifically instances where median rural rates were lower in more rural areas of state when compared to less rural areas and several instances where median rates for higher bandwidth services were lower than lower bandwidth services in comparable areas.[[101]](#footnote-103) If more effective collection of rates and service descriptions significantly reduces the anomalies found in the current approach, we seek comment on whether the resulting Rates Database, or some similar set of rate comparisons, should be used for setting urban and rural rates. We seek comment on whether the modifications to rurality tiers and service categorizations discussed in this Further Notice, or any further modifications identified by commenters, will sufficiently address those anomalies.
4. We also seek more general comment on the Rates Database.[[102]](#footnote-104) What are the overall benefits and drawbacks of the Rates Database? How, if at all, have those benefits and drawbacks changed since the Commission adopted the Rates Database in the *Promoting Telehealth Report and Order*? Is a Rates Database framework the best solution for Alaska? Are there alternative methods for determining rates in Alaska that would be objective, independent, and administratively efficient?
5. In the event that the Rates Database is retained for future funding years, we seek comment on whether we should take further action or rescind the guidance previously issued to USAC by the Bureau regarding administration and implementation of the Rates Database.[[103]](#footnote-105) We seek comment on further guidance or clarifications that would further our goal of promoting transparency and predictability in the rates determination process. Are there additional changes to the Rates Database that might resolve the anomalies discussed earlier in this Further Notice? Would determining rates using the average, rather than the median, of inputs provide sufficient and predictable funding?

#### Alternative rate determination methods

1. In this section, we seek comment on potential alternative rate setting mechanisms to the Rates Database. We seek comment on the benefits and drawbacks of these alternative approaches.

##### Pricing model with nationwide rate data

1. We seek comment on creating a nationwide regression model to estimate rural and urban rates and determine Telecom program reimbursement on a state-by-state basis.[[104]](#footnote-106) As with the Rates Database, with a regression model, health care providers would enter information about the services for which they seek support. A regression model would estimate the rural and urban rates for Telecom Program-eligible services as determined by the characteristics that are reasonably expected to affect those rates. While we do not know exactly how providers, including providers of Telecom Program services, set prices, we expect certain characteristics to influence a service’s price, known as explanatory variables for the purposes of this analysis.[[105]](#footnote-107) For example, based on data submitted by health care providers on the FCC Form 466, we have an indication of the service type (e.g., Ethernet, MPLS, satellite), bandwidth, the health care provider’s location, and whether there are service-level agreements associated with the service contract.  Using the same data that is used to construct the Rates Database or any new data that may be collected, a Telecom Program regression model would analyze how these explanatory variables influence price, and it would then estimate the rural and urban rates for the particular service purchased by a health care provider in a particular state. Appendix B, the Regression Model Technical Analysis, provides details on the relationship between explanatory variables and the estimated rates (the outcome variables). We seek comment on both the detailed discussion of the regression model analysis in Appendix B and the regression model description below.
2. *Model inputs.* We seek comment on the appropriate set of explanatory variables for use in such a model. The data used to construct the current Rates Database contain a range of information about both the services that are eligible for Telecom Program support and related services. The Rates Database categorizes services by three sets of characteristics: bandwidth, rurality tier, and the presence or absence of a service level agreement (i.e., whether the service was dedicated or best efforts).[[106]](#footnote-108) A regression model would account for the same or an expanded set of characteristics by analyzing a large number of existing rural and urban rates. We seek comment on using the same characteristics from the Rates Database as explanatory variables in a regression model. We also seek comment on whether it is beneficial to identify and include in the regression model a broader set of characteristics that are likely determinative of rates. We anticipate that using an expanded list of characteristics would be superior to a model that only relies on bandwidth, rurality tier, and presence or absence of a service-level agreement, because staff review of the data used to construct the Rates Database suggests that other characteristics could significantly contribute to the variation in rates.[[107]](#footnote-109) Further, it is possible to revise the existing set of explanatory variables to better specify the relevant factors that drive rates. For example, modifications to rurality tiers and service categories on which we seek comment in this Further Notice could improve the model estimates by improving the quality of those key variables and strengthening their relationship to how services are priced.
3. A regression model could also be applied to a subset of the data used to construct the Rates Database based on the underlying source of data (for example, the FCC Form 466 versus E-Rate forms), or alternatively, it could easily account for new data that are subsequently collected. We seek comment on the best immediately available data that should be included in a regression model if the Commission were to adopt such an approach. Should we include the universe of rates used to determine medians in the Rates Database? Should records used in the regression model be limited to RHC Program rates from FCC Forms 466? How many years of rate data should the regression analysis include? Regression models can control for relatively simple time trends. For example, including data year as an explanatory variable can capture price movements from one year to another. In such cases, using all the available years of data is to be preferred to excluding some of them. However, ensuring time effects are appropriately modeled becomes increasingly difficult when the effect of other explanatory variables on prices also varies with time. In such instances the use of old data may confound, rather than reveal, more recent relationships.[[108]](#footnote-110) We also seek comment on the type of data to include in a nationwide regression analysis going forward. Would newly collected data stemming from changes to reporting requirements proposed in this Further Notice improve the regression model results? What other data should we consider that could improve the model’s ability to estimate rural and urban rates? Beyond conventional regression analysis, should we consider other data-driven approaches, such as machine learning?
4. *State-specific analysis.* Section 254(h)(1)(A) of the Act requires that urban rates be “reasonably comparable to rates charged for similar services in urban areas in that State” and that rural rates be “rates for similar services provided to other customers in comparable rural areas of the state.”[[109]](#footnote-111) We seek comment as to whether it would be consistent with the statute to use nationwide inputs as a part of a regression analysis that determines the urban and rural rates within a state. A nationwide regression model would distinguish the independent effects of a range of explanatory variables that influence rates in a statistically coherent fashion, while taking into account the influence of state-specific factors that are not accounted for by the other explanatory variables. Thus, if rates in a given state are higher than other states, the regression model would account for these differences.[[110]](#footnote-112) Furthermore, additional local factors that influence rates beyond those used by the Rates Database, such as the terrain of a given location or existing network density, could be included within the regression model to further refine state-by-state results.
5. A regression model considers how any explanatory variable we can measure (service type, bandwidth, rurality, state, etc.) affects rates holding the other variables constant. Such an approach separates out the independent effect of each variable on the rate. Thus, we can account for effects on rates that are constant within a state but vary among states, such as state laws that affect construction, labor or other costs, or unique geographic or demographic conditions, by using the state as an explanatory variable in the regression model.
6. In addition, a regression model gains accuracy with more data. Knowledge about how bandwidth or service type affect rates in one state can assist the model in determining how these same factors affect rates in another.[[111]](#footnote-113) Could the use of nationwide data in a regression framework improve the Commission’s capacity to set reasonably comparable rates for similar services in any state? We also seek comment on how to account for factors that are unique to each state.

##### Rurality-based discount tiers

1. Alternatively, we seek comment on whether the Commission should adopt discount rates based on the rurality of the health care provider for the Telecom Program as a way to satisfy the statutory requirements for establishing rates under section 254(h)(1)(A). Under a discount rate system, the amount of support would be a percentage of the price of the service listed in the contract, and the percentage paid by the Universal Service Fund would increase as rurality increases. In the E-Rate program, schools and libraries may receive discounts ranging from 20 to 90 percent of the pre-discount price of eligible services and equipment based on indicators of need.[[112]](#footnote-114) We seek comment on whether an analogous approach establishing discount tiers based on the health care provider’s rurality would be an effective, reasonable, and workable method of determining rates for the Telecom Program.
2. We seek comment on whether a discount rate approach could meet section 254(h)(1)(A)’s requirement that telecommunications carriers provide services to rural health care providers at “rates that are reasonably comparable to rates charged for similar services in urban areas in that State.”[[113]](#footnote-115) Historically, the Commission has implemented this statutory mandate by allowing health care providers to report their *exact* urban rates on their own.[[114]](#footnote-116) Section 254(h)(1)(A), however, does not require that the rate charged to the health care provider be equal to the rate charged for similar services in a state. It merely requires that the rate charged to the health care provider be “reasonably comparable” to that rate. Section 254(h)(1)(A) also requires that the level of support be the difference between rates charged in urban areas and “rates for similar services provided to other customers in comparable rural areas in the state.”[[115]](#footnote-117) Would the amount that a health care provider pays in a discount rate system satisfy the requirements under section 254(h)(1)(A) given that the costs incurred by the health care provider under such a system would change depending on the price of the service?
3. We also seek comment on the advantages and disadvantages of a discount rate system in the Telecom Program. Under current program rules, the health care provider does not receive any financial benefit from a reduction in its rural rate because it pays the same urban rate regardless of what the rural rate is. Would a discount rate system incentivize healthcare providers to search for or negotiate lower priced contracts? Would this mechanism consequently apply competitive pressure on telecommunications carriers to submit more competitive bids during the bidding process?
4. The Commission adopted the E-Rate program percentage discount mechanism as recommended by the Joint Board on Universal Service.[[116]](#footnote-118) The Joint Board’s recommendation was based on its finding that percentage discounts would “establish incentives for efficiency and accountability” by both requiring schools and libraries to pay a share of the cost and encouraging schools and libraries to seek out the lowest pre-discount cost in order to reduce their post-discount cost.[[117]](#footnote-119) However, the Joint Board recognized the importance of focusing the highest discounts on the most disadvantaged schools and libraries and set discounts for those schools and libraries at 90 percent.[[118]](#footnote-120) We seek comment on potential discount percentages for the Telecom Program as well as whether discount percentage tiers could be determined strictly by the health care provider’s rurality or if other data points should factor into discount tier determination. What level of discount would be necessary to ensure reasonable comparability considering the very high cost of services in remote areas, particularly regions of Alaska currently classified as Frontier, and the limited resources of many rural health care providers? Due to the unique challenges that Tribal health care providers face, should Tribal health care providers receive a higher discount rate than non-Tribal providers in comparable rural areas? Would providing a higher discount rate for Tribal health care providers or considering factors other than rurality in determining discount rates comply with section 254(h)(1)(A)? Are there any other considerations beyond rurality that should be factored into a discount tier approach?

##### Cost curves

1. We also seek comment on whether independent, reliable cost curves might be used in a future rates determination process to account for the relationship between bandwidth and rates. Although rates generally increase as bandwidth increases if all other factors are unchanged, cost on a per megabit per second basis generally decreases as bandwidth increases. A pricing curve shows how the relationship between cost and bandwidth changes as bandwidth increases. Using a pricing curve might make it possible to increase the sample size of inputs that are used to calculate the rates used to determine support in the Telecom Program beyond inputs 30 percent above or below the speed of the requested service, thereby improving reliability. We could use the pricing curve to establish a baseline per megabit per second rate for inputs consisting of rates that are actually charged,[[119]](#footnote-121) use those inputs to calculate a per megabit per second rate, and then extrapolate the rate for the requested bandwidth with the pricing curve. This option would not be viable without an independent, pricing curve that accurately reflects the relationship between bandwidth and price and can be verified by interested parties. What, if any, independent cost curves reflect the relationship between bandwidth and price? Do these cost curves accurately reflect the relationship between bandwidth and price across all parts of the country? Would a single cost curve be appropriate for all technologies, or does the relationship between bandwidth and cost vary depending on the technology used to deliver the service? Would a single nationwide cost curve produce accurate rates across all geographies? Would the unique geographic characteristics of Alaska require a separate cost curve? Would the use of a cost curve allow for support that is “reasonably comparable to rates charged for similar services” in urban areas?[[120]](#footnote-122) What other aspects of the use of a cost curve should we consider?

##### Other potential rate determination methods

1. In addition to the alternatives explored above, we seek comment on any other alternative rate determination methods that would increase rate transparency while ensuring program integrity and promoting program administration. We note that earlier in this proceeding, SHLB suggested that the Commission change the “amount of the subsidy in the Telecom Program from 100 percent of the difference between the urban and rural rate to 95 percent of the difference between the urban and rural rate,” while requiring health care providers to pay the remaining five percent.[[121]](#footnote-123) SHLB claimed at the time that such an approach “would ensure that HCPs are price sensitive to the total cost of the services.”[[122]](#footnote-124) We seek comment on such an approach. If the Commission adopted such an approach, would five percent be an appropriate portion of the urban/rural rate difference for health care providers to pay, or should another percentage be adopted? Should health care providers always pay the same percentage of the urban/rural rate difference or should the percentage vary depending on the circumstances of the health care provider? If the latter, how should the Commission determine when and how the percentage varies? Should the Commission consider capping the total amount that a health care provider would pay under such a system? Would this approach be workable for health care providers in Alaska given the higher costs of providing service in that state? In the *2019 Promoting Telehealth Report and Order*, the Commission declined to follow this approach, finding that “it would be inconsistent with the goal of section 254.”[[123]](#footnote-125) Are there reasons for the Commission to reconsider that analysis?

### Potential transition period

1. The Bureau’s waiver of the use of the Rates Database expires at the end of funding year 2022 and the current Telecom Program rules and forms will govern the rate determination process and Telecom Program data collection at least through funding year 2022 and potentially further into the future depending on rulemaking and implementation timelines. We acknowledge that competitive bidding for funding year 2023 is approaching and may begin as early as July 1, 2022.[[124]](#footnote-126) We seek comment on how to manage this transition period. To the extent that the new rules we establish for determining urban and rural rates are not in effect in time for use in funding year 2023, we seek comment on how we should determine urban and rural rates during any transition period that may occur. Should the current waiver of Commission rules governing the Rates Database be extended to permit time for implementation of new rates determination rules and any associated modifications to RHC Program forms and systems? Are there viable alternatives to extending the waiver? If we implement changes to Telecom Program rules and forms, should we also extend the Rates Database waiver for an additional funding year so that USAC can collect one funding year of data under the new rules to repopulate the Rates Database? If we retain the Rates Database, should the reinstated Rates Database continue to rely on rate data collected under previous Telecom Program rules? Should we phase out older rates gradually?

## Reforming the Internal Cap on Multi-Year Commitments and Upfront Payments

1. In 2018, the Commission increased the annual RHC Program funding cap to $571 million, annually adjusted the RHC Program funding cap to reflect inflation using the Gross Domestic Product Chain-type Price Index (GDP-CPI), beginning with funding year 2018, and established a process to carry-forward unused funds from past funding years for use in future funding years.[[125]](#footnote-127) In the 2019 *Promoting Telehealth Report and Order*,it further directed the Bureau to adjust the $150 million funding cap on multi-year commitments and upfront payments in the Healthcare Connect Fund Program (internal cap) pursuant to the same index established for adjusting the overall RHC Program cap, the GDP-CPI inflation index.[[126]](#footnote-128) Any increases to the internal cap is accounted for *within* the overall RHC Program cap, i.e., an increase in the internal cap on multi-year commitments and upfront payments will not increase the overall RHC Program cap. In each of the funding years 2018, 2019, and 2020, gross demand for multi-year commitments and upfront payments exceeded the $150 million internal cap, and the Commission took actions to avoid proration or prioritization reductions of the support for those funding requests.[[127]](#footnote-129) With this history in mind, we propose reforming our funding cap rules to more efficiently and effectively handle the internal cap on multi-year commitments and upfront payments in the Healthcare Connect Fund Program by having the internal cap apply only when overall demand exceeds available funding and, if it does apply, targeting funding for equipment and services needed in the funding year at issue.
2. First, to promote the efficiency of the RHC program and reduce delays of funding commitments, we propose amending our rules to limit the application of the internal cap to only funding years for which the total demand exceeds the total remaining support available.[[128]](#footnote-130) In other words, when the total support available for the funding year, which is the sum of the inflation-adjusted RHC Program aggregate cap in section 54.619(a)[[129]](#footnote-131) and the proportion of unused funding determined for use in the RHC Program pursuant to section 54.619(a)(5),[[130]](#footnote-132) could satisfy the total demand, the internal cap would not apply. Specifically, in an initial filing window, the internal cap would apply only when the total program demand during the filing window exceeds the total support available in the RHC Program for the funding year. In the unlikely event that there is an additional filing window in a given year,[[131]](#footnote-133) and if the total demand during the additional filing window exceeds the total remaining support available for the funding year, funding for upfront payment and multi-year commitment requests submitted during the additional filing window will be capped at the remaining support available within the internal cap.
3. This proposed amendment to Commission rules would preserve the internal cap’s intended purpose of preventing multi-year and upfront payment requests from encroaching on the funding available for single-year requests,[[132]](#footnote-134) because the internal cap would still apply in the same way as before when the total demand exceeds the total remaining support available. We seek comment on this proposed new rule. In particular, will it have any negative impact on the RHC Program? We recognize there might be concerns that a very large demand for upfront payments and multi-year commitments could consume a significant amount of the unused funds, and consequently could impact the available funding for single-year requests in the next funding year because there would be less unused funding available to be carried forward to the next funding year. The more likely result of fully funding a large demand for upfront payments and multi-year commitments, however, is that *less* funding would be required for single-year requests in the next funding year. This would be the case because there likely will be fewer single-year requests in the next funding year given that some of the multi-year commitments may have their second-year requests filed as single-year requests in the next funding year if not fully funded. Thus, the full-funding of a large demand for upfront payments and multi-year commitments would be unlikely to cause single-year request prioritization in the next funding year. Nevertheless, we believe that this proposed new rule will not result in all or most unused funding from prior funding years being exhausted in a single funding year because the Bureau, in consultation with the Office of the Managing Director, controls the proportion of unused funding to be used in the RHC Program.[[133]](#footnote-135) Are the above assessments reasonable?
4. Second, when the internal cap applies and is exceeded, we propose to target funding for upfront costs and the first year of multi-year commitment requests and to fund the second and third year of multi-year commitments with any leftover funding. Currently, when funding requests for upfront payments and multi-year commitments must be prioritized, requests falling in a higher prioritization category will be fully funded before requests in the next lower prioritization category can be funded, provided that there are funds available and the internal cap has not been reached.[[134]](#footnote-136) For example, a three-year multi-year commitment request in a “Priority 2” tier may have all three years’ services funded while a three-year multi-year commitment request in a “Priority 6” tier may not be funded at all, including the first year’s service.
5. The current prioritization process will inevitably result in some health care providers, likely those in the lower prioritization categories, losing all or a portion of their requested support when the requests must be prioritized while other health care providers receive commitments for the second and third years of multi-year commitments, even though they could request funding for these services in the next two funding years. To mitigate the adverse impact on those health care providers, we propose amending section 54.621 of the Commission’s rules to fund upfront payments and the first year of multi-year commitments for all priority tiers (provided funding is available), and then the second and third years of the multi-year commitments until the internal cap is reached.[[135]](#footnote-137) This way, it is more likely that all health care providers that requested upfront payments and multi-year commitments can at least have their current funding year’s financial need satisfied. Applicants can still request the second and third year funding in the next funding year. We seek comment on this proposed change to section 54.621. Alternatively, should the internal cap apply only to self-construction,[[136]](#footnote-138) in order to reduce its impact on other forms of upfront payments, such as funding for equipment, and on multi-year commitments?[[137]](#footnote-139)
6. We also propose allowing the underlying contracts associated with those multi-year requests that are not fully funded to be designated as “evergreen,” provided that the contracts satisfy the criteria set forth in section 54.622(i)(3)(ii) of the Commission’s rules.[[138]](#footnote-140) The evergreen designation will exempt applicants from having to complete the competitive bidding process for the contracts when subsequently filing requests for support pursuant to these contracts.[[139]](#footnote-141) As a result, applicants can request multi-year commitments pursuant to these contracts in the next funding year without going through the competitive bidding process. We seek comment on this proposal.
7. As noted above, this proposed method for prioritizing upfront payment and multi-year commitment requests applies when both the total support available and the internal cap are exceeded. Should this method also apply when the total support available is exceeded but the internal cap is not exceeded? Currently, if the total demand exceeds the total support available but the demand for upfront payments and multi-year commitments is within the internal cap, all eligible requests (single-year requests and upfront payment and multi-year commitment requests) submitted during the filing window will be prioritized according to the priority schedule defined in section 54.621(b) of the Commission’s rules.[[140]](#footnote-142) In such a case, no separate prioritization of the upfront payment and multi-year commitment requests will be conducted because the internal cap is not exceeded. If the proposed method should also apply when the total support available is exceeded but the internal cap is not exceeded, we propose funding all single-year requests, upfront payments, and the first-year of multi-year commitment requests in accordance with section 54.621(b) *before* funding the second year and third year of multi-year commitment requests.
8. We acknowledge that some health care providers, especially those in the higher prioritization categories, may be inconvenienced under the proposed method because they would have to file applications in future funding years for services that otherwise would fall under the second and third year of a multi-year commitment. We tentatively conclude that this inconvenience to those health care providers is outweighed by the benefit to health care providers who, without this rule change, could have funding requests for upfront costs and services in the first year of a multi-year commitment request denied or prorated. Do program participants agree with this tentative conclusion? Are there any additional disadvantages associated with this method? Are there any other approaches to better handle the prioritization reduction of upfront payments and multi-year commitments? Rather than making these changes, would it be better to simply eliminate the internal cap on upfront costs and multi-year commitments? We also seek comment on whether the current funding cap is sufficient to satisfy demand now and in the coming years for the RHC Program, including whether the current inflation adjustment mechanism accurately reflects changes in the cost to provide broadband and telecommunications services.[[141]](#footnote-143)

## Harmonizing Telecom Program Invoicing With HCF Program Invoicing

1. In the 2019 *Promoting Telehealth Report and Order*, the Commission established a number of improvements to the invoicing process for both the Healthcare Connect Fund Program and Telecom Program. Specifically, the Commission established a uniform invoice filing deadline for the RHC Program, beginning with funding year 2020,[[142]](#footnote-144) established a one-time invoice deadline extension allowing service providers and billed entities to request and automatically receive a single one-time 120-day extension of the invoice deadline,[[143]](#footnote-145) and strengthened the certifications under both the Telecom Program and HCF Program.[[144]](#footnote-146)
2. In this section, we propose to fully harmonize the invoicing process between the Telecom Program and the Healthcare Connect Fund Program. Currently, there are separate invoicing processes for the two programs. Under the Commission’s rules, Telecom Program participants “must submit documentation to [USAC] confirming the service start date, the service end or disconnect date, or whether the service was never turned on.”[[145]](#footnote-147) Health care providers send this information to USAC via the FCC Form 467 (Connection Certification).[[146]](#footnote-148) After that, USAC generates a Health Care Provider Support Schedule (HSS), which the service provider uses to determine how much credit the applicant will receive for the services.[[147]](#footnote-149) When the HSS is generated, the service provider reviews the HSS for accuracy and applies the credit to the health care provider’s account.[[148]](#footnote-150) Once the credit is applied to the health care provider’s account, the service provider can file invoices through USAC’s online filing system, My Portal.[[149]](#footnote-151) After an HSS is issued, it is the responsibility of the health care provider to submit a request for an FCC Form 467 revision if services are delayed or not turned on.[[150]](#footnote-152) Absent requests for an FCC Form 467 revision, the service provider may submit invoices for services for the exact amount listed on the HSS and USAC will continue to disburse funds according to the schedule.
3. We tentatively conclude that HSSs compromise the ability of USAC to administer the Telecom Program effectively and efficiently because once a service provider files an invoice and receives a disbursement, the FCC Form 467 can no longer be revised even when there is a change in service. Due to this limitation, if a service is later disconnected or was never actually installed, the service provider could still submit invoices for the service (but only for the amount established in the HSS) and receive disbursements from USAC. In My Portal, when a service provider submits an invoice, the amount requested for disbursement is pre-populated and must match the amount determined in the HSS even if the actual costs reflected in the bill are for less than the HSS amount.[[151]](#footnote-153) In recent years, the Enforcement Bureau discovered instances where invoices submitted under a valid HSS were inaccurate.[[152]](#footnote-154) Specifically, the invoices were for disconnected or uninstalled services, which resulted in funding disbursements to the service provider that exceeded the amount of Telecom Program support to which it was entitled.[[153]](#footnote-155)
4. The Healthcare Connect Fund Program uses a simpler invoicing process. To invoice in the Healthcare Connect Fund Program, the participating service provider and the health care provider must submit an invoice for broadband service using FCC Form 463 (Invoice and Request for Disbursement Form) to USAC after services are provided.[[154]](#footnote-156) Once a health care provider receives a bill from its service provider, it can create an invoice for the services received using the FCC Form 463.[[155]](#footnote-157) The health care provider must certify that the information in the form and attachments is accurate and that it or another eligible source has paid the 35 percent contribution.[[156]](#footnote-158) The health care provider then sends the FCC Form 463 to the service provider for approval through My Portal.[[157]](#footnote-159) The service provider reviews the FCC Form 463 and certifies its accuracy, and then submits the form to USAC.[[158]](#footnote-160) Once USAC receives the FCC Form 463, it processes the form and, if approved, funds are then distributed to the service provider.[[159]](#footnote-161) Thus, funding is only disbursed in the Healthcare Connect Fund Program when actual costs are reflected in an invoice from the service provider. The process of confirming costs with invoices reduces the possibility of over-invoicing because funding is disbursed only when expenses are actually incurred, which differs from the Telecom Program where a service provider may receive funds when the service was never installed or was disconnected.
5. To alleviate inefficiencies and to further protect against waste, fraud, and abuse in the Rural Health Care Program, we propose to revise our rules to eliminate the use of HSSs in the Telecom Program and align the Telecom Program’s invoicing process with the Healthcare Connect Fund Program’s invoicing rules. Specifically, we propose to have participants in both programs invoice USAC for services actually provided using the FCC Form 463 rather than use HSSs in the Telecom Program.[[160]](#footnote-162) We tentatively conclude that eliminating the use of HSSs in the Telecom Program would increase the efficient and effective distribution of program funds because funds would be distributed according to actual costs rather than according to a predetermined schedule. We seek comment on this tentative conclusion. If the proposal to eliminate HSSs is adopted, the use of the FCC Form 467 would be unnecessary because health care providers would no longer need to file the form to receive HSSs. We therefore propose to eliminate the use of the FCC Form 467 and retire the form. We tentatively conclude that removing the burden of reporting changes in service would better protect the Telecom Program from waste, fraud, and abuse because it would reduce the possibility that service providers could over invoice USAC for services not provided.[[161]](#footnote-163) We seek comment on these proposals and invite commenters to comment on whether there is an alternative method for revising our invoicing rules in the Telecom Program to protect against waste, fraud, and abuse.

## Application Processing, Funding Decisions, and Appeals of Decisions

1. We seek comment on any additional measures beyond those already taken by the Commission and USAC that could further enhance the efficiency of application processing and the speed in which funding commitment decisions are made. To ensure distribution of support in accordance with program rules and to make the application process as smooth as possible for health care providers, in the *Promoting Telehealth Report and Order*, the Commission directed USAC to develop procedures for application review and to develop outreach materials to help participants navigate program processes.[[162]](#footnote-164) Additionally, USAC recently began a multi-step overhaul of its application platform that should make the funding review process faster and more efficient.[[163]](#footnote-165) Analysis conducted by Commission staff indicates that USAC’s processing for RHC Program applications has improved in recent funding years. We seek comment on what additional steps, if any, the Commission or USAC can take to further expedite application processing while still protecting the integrity of the Fund. Should the Commission consider requiring USAC to process applications and make funding commitment decisions within a specified period of time after the close of the filing window or after the requisite forms and responses to USAC information requests have been deemed received by USAC after initial cursory review? One stakeholder raised concerns that program rules are unclear regarding the eligibility of equipment, leading to inconsistent funding decisions.[[164]](#footnote-166) If this is the case, in what way are program rules unclear regarding the eligibility of equipment and how can they be made clearer? We also seek comment on whether there are changes the Commission can make to the existing appeals process for appeals with USAC and the Commission, including whether the Commission or USAC should be required to act on such appeals within a specified period of time.
2. Finally, we seek comment on whether there are other reforms the Commission should consider to eliminate common errors with the application review and decision-making process. Stakeholders have previously expressed concern about administrative errors on the part of USAC that lead to lengthy delays. Do these types of errors remain a concern? Are there steps the Commission can take to reduce the administrative costs and burdens on health care providers while maintaining the integrity of the Fund and protecting against waste, fraud, and abuse?

## Digital Equity and Inclusion

1. The Commission, as part of its continuing effort to advance digital equity for all,[[165]](#footnote-167) including people of color, persons with disabilities, persons who live in rural or Tribal areas, and others who are or have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality, invites comment on any equity-related considerations[[166]](#footnote-168) and benefits (if any) that may be associated with the proposals and issues discussed herein. Specifically, we seek comment on how our proposals may promote or inhibit advances in diversity, equity, inclusion, and accessibility, as well the scope of the Commission’s relevant legal authority.

# Procedural Matters

1. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),[[167]](#footnote-169) requires that an agency prepare a regulatory flexibility analysis for notice-and-comment rulemaking proceedings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”[[168]](#footnote-170) Accordingly, the Commission has prepared an Initial Regulatory Flexibility Analysis (IRFA) concerning potential rule and policy changes contained in this *Further Notice of Proposed Rulemaking*. The IRFA is set forth in Appendix C.
2. *Paperwork Reduction Act*. This document contains proposed new 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, Public Law 104-13. 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 seek specific comment on how we might further reduce the information collection burden for small business concerns with fewer than 25 employees.
3. *Ex Parte Rules – Permit-But-Disclose*. The proceeding this Further Notice initiates shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules.[[169]](#footnote-171) 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.
4. *Comment Period and Filing Requirements*. 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 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://www.fcc.gov/ecfs/>.
* Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing.
* Filings can be sent 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.
* 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 45 L Street NE Washington, DC 20554.
* Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19. *See* *FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, 35 FCC Rcd 2788, 2788-89 (OS 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

1. *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](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).
2. *Contact Person.* For further information about this proceeding, please contact, Bryan P. Boyle, Deputy Division Chief, Telecommunications Access Policy Division, Wireline Competition Bureau, at Bryan.Boyle@fcc.gov.
3. *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities*. The reporting, recordkeeping, and other compliance requirements proposed in this Further Notice likely would positively and negatively financially impact both large and small entities, including healthcare providers and service providers, and any resulting financial burdens may disproportionately impact small entities given their typically more limited resources. In weighing the likely financial benefits and burdens of our proposed requirements, however, we have determined that our proposed changes would result in more equitable, effective, efficient, clear, and predictable distribution of RHC support, far outweighing any resultant financial burdens on small entity participants.
4. *Application Documentation*. We seek comment on proposed revisions to Telecom Program forms and corresponding USAC online portals to improve the quality and consistency of Telecom Program data. We seek comment on revisions to the FCC Form 466 as well as any other Rural Health Care Program forms including Health Care Connect Fund Program forms that might allow us to collect more detailed service information to allow for more accurate comparisons of rates for similar services consistent with the revised rurality classifications and service categories proposed in this Further Notice. We also seek comment on whether there is certain information regarding the technical details or components of telecommunications services that rural health care providers cannot access or lack the technical expertise to report to USAC and should therefore be reported by service providers.
5. *Invoicing Requirements*. To harmonize the Commission’s rules under the Telecom and HCF Programs, and to ensure sufficient program oversight, efficiency, and certainty, we propose to harmonize the invoicing process between the Telecom Program and the Healthcare Connect Fund Program.
6. *Improving Data Collection*. As we seek to better monitor RHC Program effectiveness, we seek general comment on the data collected for the Telecom Program.

# Ordering Clauses

1. Accordingly, IT IS ORDERED that, pursuant to the authority contained in sections 1 through 4, 201-205, 254, 303(r), and 403 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. §§ 151 through 154, 201 through 205, 254, 303(r), and 403, this Further Notice of Proposed Rulemaking IS ADOPTED.
2. IT IS FURTHER ORDERED that, pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the Commission’s rules, 47 CFR. §§ 1.415, 1.419, interested parties may file comments on this Further Notice of Proposed Rulemaking on or before 30 days from publication of this item in the Federal Register, and reply comments on or before 60 days from publication of this item in the Federal Register.
3. IT IS FURTHER ORDERED that the Commission’s Consumer and Governmental Affairs Bureau, Reference Information Center, SHALL SEND a copy of this Further Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Secretary

**APPENDIX A**

**PROPOSED RULES**

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 54 to read as follows:

**PART 54 – UNIVERSAL SERVICE**

1. 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, 229, 254, 303(r), 403, 1004, 1302 and 1601-1609 unless otherwise noted.

1. Amend § 54.619 by adding new paragraph (b) to read as follows:

**§ 54.619 Cap.**

\* \* \* \* \*

(b) *Application of the internal cap on multi-year commitments and upfront payments in the Healthcare Connect Fund Program.* The internal cap on multi-year commitments and upfront payments in the Healthcare Connect Fund Program applies only when the total demand during a filing window period exceeds the total remaining support available for the funding year. The total remaining support available for the funding year is based on the inflation-adjusted aggregate annual cap, the proportion of unused funding for use in the Rural Health Care Program determined in paragraph (a)(5) of this section, and the amount of funding allocated in one or more previous filing window periods, if any, of the funding year.

1. Amend § 54.621 by adding new paragraph (b)(3) to read as follows:

**§ 54.621 Filing window for requests and prioritization of support.**

\* \* \* \* \*

(b) \* \* \*

1. \* \* \*
2. \* \* \*
3. *Prioritization of upfront payment and multi-year commitment requests*. When the internal cap on multi-year commitments and upfront payments applies pursuant to § 54.619(b) and the demand for upfront payments and multi-year commitments during a filing window period exceeds the internal cap on multi-year commitments and upfront payments in the Healthcare Connect Fund Program, the Administrator shall fund upfront payments and the first year of the multi-year commitments in all eligible requests in accordance with paragraph (b) of this section before funding the second year and the third year, if applicable, of the multi-year commitment requests in accordance with paragraph (b) of this section until the internal cap is reached or no available funds remaining. The Administrator shall also designate the underlying contracts associated with the multi-year commitment requests that are not fully funded as “evergreen” provided those contracts meet the requirements under § 54.622(i)(3)(ii).
4. Amend § 54.627 to delete subsections (c)(1) and (c)(2) and renumber current subsection (c)(3) as subsection (c) to read as follows:

**§ 54.627 Invoicing Process and Certifications.**

(a) \* \* \*

(1) \* \* \*

(b) \* \* \*

(c)

(1) **Certifications.** Before the Administrator may process and pay an invoice, both the health care provider and the service provider must make the following certifications.

(i) The health care provider must certify that:

(A) The service has been or is being provided to the health care provider;

(B) The universal service credit will be applied to the telecommunications service billing account of the health care provider or the billed entity as directed by the health care provider;

(C) It is authorized to submit this request on behalf of the health care provider;

(D) It has examined the invoice and supporting documentation and that to the best of its knowledge, information and belief, all statements of fact contained in the invoice and supporting documentation are true;

(E) It or the consortium it represents satisfies all of the requirements and will abide by all of the relevant requirements, including all applicable Commission rules, with respect to universal service benefits provided under 47 U.S.C. 254; and

(F) It understands that any letter from the Administrator that erroneously states that funds will be made available for the benefit of the applicant may be subject to rescission.

(ii) The service provider must certify that:

(A) The information contained in the invoice is correct and the health care providers and the Billed Account Numbers have been credited with the amounts shown under “Support Amount to be Paid by USAC;”

(B) It has abided by all of the relevant requirements, including all applicable Commission rules;

(C) It has received and reviewed the invoice form and accompanying documentation, and that the rates charged for the telecommunications services, to the best of its knowledge, information and belief, are accurate and comply with the Commission's rules;

(D) It is authorized to submit the invoice;

(E) The health care provider paid the appropriate urban rate for the telecommunications services;

(F) The rural rate on the invoice does not exceed the appropriate rural rate determined by the Administrator;

(G) It has charged the health care provider for only eligible services prior to submitting the invoice for payment and accompanying documentation;

(H) It has not offered or provided a gift or any other thing of value to the applicant (or to the applicant's personnel, including its consultant) for which it will provide services; and

(I) The consultants or third parties it has hired do not have an ownership interest, sales commission arrangement, or other financial stake in the service provider chosen to provide the requested services, and that they have otherwise complied with Rural Health Care Program rules, including the Commission's rules requiring fair and open competitive bidding.

(J) As a condition of receiving support, it will provide to the health care providers, on a timely basis, all documents regarding supported equipment or services that are necessary for the health care provider to submit required forms or respond to Commission or Administrator inquiries.

(d) \* \* \*

**Appendix B**

**REgression model technical Analysis**

The following discussion illustrates how a regression model approach could be applied to the data used to construct the current Telecom Program Rates Database. The outcome variable of this model is a monthly rate, and its explanatory variables are bandwidth, service type, service level guarantees, rurality of the region served, and the state in which service is requested. More specifically, the monthly rate, call this *Rate*, is modeled in the example below as depending in some way on the values of the explanatory variables, call these *Bandwidth*, *Service Type,* *Service Level*, *Rurality*, and *State*. This relationship can be expressed as a function:

The symbol (the Greek letter epsilon) is called the error or disturbance term. It represents the residual variation which is not explicitly modeled (i.e., factors outside of the model).[[170]](#footnote-172)

The outcome variable, *Rate,* enters the model as a natural logarithm. This transformation yields residuals with a more symmetrical distribution, which is appropriate because the basic regression model described here assumes that errors are normally distributed. Using a natural logarithm also prevents the prediction of monthly rates with negative values. The Rates Database approach treated services as functionally similar if reported speeds were 30 percent above or below the speed of the requested service. However, the regression model includes bandwidth and service type as separate explanatory variables to estimate their individual effect on monthly rate. *Bandwidth* enters the model as a natural logarithm of reported speed to account for its nonlinear relationship with monthly rate. *Service Type* enters as a categorical variable, which staff analysis found to have a significant effect on monthly rate. The Rates Database also identified the *Service Level*, *Rurality*, and *State* associated with each rate observation. *Service Level* refers to the presence or absence of a service level agreement; *Rurality* refers to whether the location served is in an urban area or one of four levels of rurality; and *State* refers the state in which service is requested. The regression model similarly defines each of these explanatory variables. Their qualitative categories can be given numerical stand-ins of 1 or 0, which are known as indicator variables. *Service Level* has a single indicator variable, with no service level agreement contracts serving as the base level. *Rurality* is modeled using a set of four indicator variables, one for each rurality classification, with urban areas serving as the base level. *State* is a set of indicator variables like *Rurality*, but with 55 indicators, counting the District of Columbia, American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands, with one state serving as the base level.[[171]](#footnote-173) This accounts for differences across states that are not due to *Bandwidth*, *Service Level*, or *Rurality*.

The model arranges these variables into an equation that estimates monthly rate. Each variable is multiplied by an unknown constant value, which is called a coefficient, and the resulting products are all summed to equal monthly rate:

Each coefficient is represented by the symbol β (the Greek letter beta) with a different subscript number. The symbol Σ (the Greek letter sigma) represents the sum of a series of indicator variables and their corresponding parameters.

Coefficient estimates measure the effect of each explanatory variable on the outcome being modeled, while holding all other variables constant. For example, the *β4* coefficient associated with the variable *Service Level,* can be thought of as the change in *Rate* resulting from whether the *Service Level* includes a service level agreement while holding the *Bandwidth,* *Rurality*, and *State* variables constant. *State* controls for state-level effects that are not accounted for by the other explanatory variables. By including these effects, the regression model can be applied to nationwide data and still produce estimates that are specific to each state.

The true values of the coefficients cannot be known with certainty, due to outside influences not directly included in the model but accounted for by the term. The regression therefore estimates the value of these coefficients by minimizing the sum of squared differences between observed values of *Rate* and those values predicted by the model. With the estimated coefficients, the regression equation can be used to estimate the monthly rate of a service based on its bandwidth, service type, service level, and its location (rurality and state).

**Appendix C**

**Initial Regulatory Flexibility Analysis**

1. As required by the Regulatory Flexibility Act of 1980, as amended (RFA),[[172]](#footnote-174) the Commission has prepared this Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on a substantial number of small entities by the policies and rules proposed in the Further Notice of Proposed Rulemaking. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Further Notice provided on the first page of the item. The Commission will send a copy of the Further Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (SBA).[[173]](#footnote-175) In addition, the Further Notice and IRFA (or summaries thereof) will be published in the Federal Register.[[174]](#footnote-176)

## Need for, and Objectives of, the Proposed Rules

1. Through this Further Notice, the Commission seeks to improve the Rural Health Care (RHC) Program’s capacity to distribute telecommunications and broadband support to health care providers– especially small, rural healthcare providers (HCPs) – in the most equitable and efficient manner as possible. Over the years, telehealth has become an increasingly vital component of healthcare delivery to rural Americans. Rural healthcare facilities are typically limited by the equipment and supplies they have and the scope of services they can offer which ultimately can have an impact on the availability of high-quality health care. Therefore, the RHC Program plays a critical role in overcoming some of the obstacles healthcare providers face in healthcare delivery in rural communities. Considering the significance of RHC Program support, the Commission proposes and seeks comment on several measures to most effectively meet HCPs’ needs while responsibly distributing the RHC Program’s limited funds.
2. In this Further Notice, we seek comment on several measures to improve the process of determining accurate and reasonable rates in the Telecom Program. Specifically, we seek comment on various data inputs related to rurality classifications for health care providers and categorization of eligible services to determine rates that reflect the cost of delivering service to health care providers. We also seek comment on how to improve our current rate determination mechanism to prevent some of the inconsistencies and anomalies in Rates Database. We seek additional comment on alternatives to the Rates Database, including a regression model.
3. We also propose and seek comment on a few procedural matters that would improve the overall effectiveness of the RHC Program. For example, we seek comment on reforming the Rural Health Care Program’s internal funding cap. Specifically, we propose to amend our current rules so that the internal cap for upfront costs and multi-year commitments applies only if available funding for the entire program is exceeded. We seek comment on a two-tiered system that would prioritize first the funding of upfront costs and the first year of multi-year commitments and then the second and third year of multi-year commitments until the internal cap is reached.
4. To alleviate inefficiencies and to further protect against waste, fraud, and abuse in the Rural Health Care Program, we also propose to revise our rules to eliminate the use of Health Care Provider Support Schedules (HSSs)in the Telecom Program and harmonize the Telecom Program’s invoicing process with the Healthcare Connect Fund Program’s invoicing rules.

## Legal Basis

1. The legal basis for the Further Notice is contained in sections 1 through 4(g)(D)(i)-(j), 201-205, 254, 303(r), and 403 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996, 47 U.S.C. §§ 151 through 154(i), (j), 201 through 205, 254, 303(r), and 403.

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

1. 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.[[175]](#footnote-177) The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”[[176]](#footnote-178) In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.[[177]](#footnote-179) A “small business concern” is one that: (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).[[178]](#footnote-180)
2. *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.[[179]](#footnote-181) 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.[[180]](#footnote-182) These types of small businesses represent 99.9 percent of all businesses in the United States which translates to 31.7 million businesses.[[181]](#footnote-183)
3. 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.”[[182]](#footnote-184) The Internal Revenue Service (IRS) uses a revenue benchmark of $50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.[[183]](#footnote-185) Nationwide, for tax year 2018, there were approximately 571,709 small exempt organizations in the U.S. reporting revenues of $50,000 or less according to the registration and tax data for exempt organizations available from the IRS.[[184]](#footnote-186)
4. 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.”[[185]](#footnote-187) U.S. Census Bureau data from the 2017 Census of Governments[[186]](#footnote-188) indicates that there were 90,075 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.[[187]](#footnote-189) Of this number there were 39, 931 general purpose governments (county[[188]](#footnote-190), municipal and town or township[[189]](#footnote-191)) with populations of less than 50,000 and 12,040 special purpose governments (independent school districts[[190]](#footnote-192)) with populations of less than 50,000.[[191]](#footnote-193) Based on the 2017 U.S. Census Bureau data we estimate that at least 48, 971 entities fall in the category of “small governmental jurisdictions.”[[192]](#footnote-194)
5. Small entities potentially affected by the proposals herein include eligible rural non-profit and public health care providers and the eligible service providers offering them services, including telecommunications service providers, Internet Service Providers (ISPs), and vendors of the services and equipment used for dedicated broadband networks.[[193]](#footnote-195)

### Healthcare Providers

1. *Offices of Physicians (except Mental Health Specialists)*.This U.S. industry comprises establishments of health practitioners having the degree of M.D. (Doctor of Medicine) or D.O. (Doctor of Osteopathy) primarily engaged in the independent practice of general or specialized medicine (except psychiatry or psychoanalysis) or surgery. These practitioners operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers.[[194]](#footnote-196) The SBA has created a size standard for this industry, which is annual receipts of $12 million or less.[[195]](#footnote-197) According to 2012 U.S. Economic Census, 152,468 firms operated throughout the entire year in this industry.[[196]](#footnote-198) Of that number, 147,718 had annual receipts of less than $10 million, while 3,108 firms had annual receipts between $10 million and $24,999,999.[[197]](#footnote-199) Based on this data, we conclude that a majority of firms operating in this industry are small under the applicable size standard.
2. *Offices of Dentists*.This U.S. industry comprises establishments of health practitioners having the degree of D.M.D. (Doctor of Dental Medicine), D.D.S. (Doctor of Dental Surgery), or D.D.Sc. (Doctor of Dental Science) primarily engaged in the independent practice of general or specialized dentistry or dental surgery. These practitioners operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers. They can provide either comprehensive preventive, cosmetic, or emergency care, or specialize in a single field of dentistry.[[198]](#footnote-200) The SBA has established a size standard for that industry of annual receipts of $8 million or less.[[199]](#footnote-201) The 2012 U.S. Economic Census indicates that 115,268 firms operated in the dental industry throughout the entire year.[[200]](#footnote-202) Of that number 114,417 had annual receipts of less than $5 million, while 651 firms had annual receipts between $5 million and $9,999,999.[[201]](#footnote-203) Based on this data, we conclude that a majority of business in the dental industry are small under the applicable standard.
3. *Offices of Chiropractors*. This U.S. industry comprises establishments of health practitioners having the degree of D.C. (Doctor of Chiropractic) primarily engaged in the independent practice of chiropractic. These practitioners provide diagnostic and therapeutic treatment of neuromusculoskeletal and related disorders through the manipulation and adjustment of the spinal column and extremities, and operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers.[[202]](#footnote-204) The SBA has established a size standard for this industry, which is annual receipts of $8 million or less.[[203]](#footnote-205) The 2012 U.S. Economic Census statistics show that in 2012, 33,940 firms operated throughout the entire year.[[204]](#footnote-206) Of that number 33,910 operated with annual receipts of less than $5 million per year, while 26 firms had annual receipts between $5 million and $9,999,999.[[205]](#footnote-207) Based on this data, we conclude that a majority of chiropractors are small.
4. *Offices of Optometrists*. This U.S. industry comprises establishments of health practitioners having the degree of O.D. (Doctor of Optometry) primarily engaged in the independent practice of optometry. These practitioners examine, diagnose, treat, and manage diseases and disorders of the visual system, the eye and associated structures as well as diagnose related systemic conditions. Offices of optometrists prescribe and/or provide eyeglasses, contact lenses, low vision aids, and vision therapy. They operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers, and may also provide the same services as opticians, such as selling and fitting prescription eyeglasses and contact lenses.[[206]](#footnote-208) The SBA has established a size standard for businesses operating in this industry, which is annual receipts of $8 million or less.[[207]](#footnote-209) The 2012 Economic Census indicates that 18,050 firms operated the entire year.[[208]](#footnote-210) Of that number, 17,951 had annual receipts of less than $5 million, while 70 firms had annual receipts between $5 million and $9,999,999.[[209]](#footnote-211) Based on this data, we conclude that a majority of optometrists in this industry are small.
5. *Offices of Mental Health Practitioners (except Physicians)*.This U.S. industry comprises establishments of independent mental health practitioners (except physicians) primarily engaged in (1) the diagnosis and treatment of mental, emotional, and behavioral disorders and/or (2) the diagnosis and treatment of individual or group social dysfunction brought about by such causes as mental illness, alcohol and substance abuse, physical and emotional trauma, or stress. These practitioners operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers.[[210]](#footnote-212) The SBA has created a size standard for this industry, which is annual receipts of $8 million or less. [[211]](#footnote-213) The 2012 U.S. Economic Census indicates that 16,058 firms operated throughout the entire year.[[212]](#footnote-214) Of that number, 15,894 firms received annual receipts of less than $5 million, while 111 firms had annual receipts between $5 million and $9,999,999.[[213]](#footnote-215) Based on this data, we conclude that a majority of mental health practitioners who do not employ physicians are small.
6. *Offices of Physical, Occupational and Speech Therapists and Audiologists*.This U.S. industry comprises establishments of independent health practitioners primarily engaged in one of the following: (1) providing physical therapy services to patients who have impairments, functional limitations, disabilities, or changes in physical functions and health status resulting from injury, disease or other causes, or who require prevention, wellness or fitness services; (2) planning and administering educational, recreational, and social activities designed to help patients or individuals with disabilities, regain physical or mental functioning or to adapt to their disabilities; and (3) diagnosing and treating speech, language, or hearing problems. These practitioners operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers.[[214]](#footnote-216) The SBA has established a size standard for this industry, which is annual receipts of $8 million or less.[[215]](#footnote-217) The 2012 U.S. Economic Census indicates that 20,567 firms in this industry operated throughout the entire year.[[216]](#footnote-218) Of this number, 20,047 had annual receipts of less than $5 million, while 270 firms had annual receipts between $5 million and $9,999,999.[[217]](#footnote-219) Based on this data, we conclude that a majority of businesses in this industry are small.
7. *Offices of Podiatrists*.This U.S. industry comprises establishments of health practitioners having the degree of D.P.M. (Doctor of Podiatric Medicine) primarily engaged in the independent practice of podiatry. These practitioners diagnose and treat diseases and deformities of the foot and operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers.[[218]](#footnote-220) The SBA has established a size standard for businesses in this industry, which is annual receipts of $8 million or less.[[219]](#footnote-221) The 2012 U.S. Economic Census indicates that 7,569 podiatry firms operated throughout the entire year.[[220]](#footnote-222) Of that number, 7,545 firms had annual receipts of less than $5 million, while 22 firms had annual receipts between $5 million and $9,999,999.[[221]](#footnote-223) Based on this data, we conclude that a majority of firms in this industry are small.
8. *Offices of All Other Miscellaneous Health Practitioners*.This U.S. industry comprises establishments of independent health practitioners (except physicians; dentists; chiropractors; optometrists; mental health specialists; physical, occupational, and speech therapists; audiologists; and podiatrists). These practitioners operate private or group practices in their own offices (e.g., centers, clinics) or in the facilities of others, such as hospitals or HMO medical centers.[[222]](#footnote-224) The SBA has established a size standard for this industry, which is annual receipts of $8 million or less.[[223]](#footnote-225) The 2012 U.S. Economic Census indicates that 11,460 firms operated throughout the entire year.[[224]](#footnote-226) Of that number, 11,374 firms had annual receipts of less than $5 million, while 48 firms had annual receipts between $5 million and $9,999,999.[[225]](#footnote-227) Based on this data, we conclude the majority of firms in this industry are small.
9. *Family Planning Centers*. This U.S. industry comprises establishments with medical staff primarily engaged in providing a range of family planning services on an outpatient basis, such as contraceptive services, genetic and prenatal counseling, voluntary sterilization, and therapeutic and medically induced termination of pregnancy.[[226]](#footnote-228) The SBA has established a size standard for this industry, which is annual receipts of $12 million or less.[[227]](#footnote-229) The 2012 Economic Census indicates that 1,286 firms in this industry operated throughout the entire year.[[228]](#footnote-230) Of that number 1,237 had annual receipts of less than $10 million, while 36 firms had annual receipts between $10 million and $24,999,999.[[229]](#footnote-231) Based on this data, we conclude that the majority of firms in this industry is small.
10. *Outpatient Mental Health and Substance Abuse Centers*. This U.S. industry comprises establishments with medical staff primarily engaged in providing outpatient services related to the diagnosis and treatment of mental health disorders and alcohol and other substance abuse. These establishments generally treat patients who do not require inpatient treatment. They may provide a counseling staff and information regarding a wide range of mental health and substance abuse issues and/or refer patients to more extensive treatment programs, if necessary.[[230]](#footnote-232) The SBA has established a size standard for this industry, which is $16.5 million or less in annual receipts.[[231]](#footnote-233) The 2012 U.S. Economic Census indicates that 4,446 firms operated throughout the entire year.[[232]](#footnote-234) Of that number, 4,069 had annual receipts of less than $10 million while 286 firms had annual receipts between $10 million and $24,999,999.[[233]](#footnote-235) Based on this data, we conclude that a majority of firms in this industry are small.
11. *HMO Medical Centers*.This U.S. industry comprises establishments with physicians and other medical staff primarily engaged in providing a range of outpatient medical services to the health maintenance organization (HMO) subscribers with a focus generally on primary health care. These establishments are owned by the HMO. Included in this industry are HMO establishments that both provide health care services and underwrite health and medical insurance policies.[[234]](#footnote-236) The SBA has established a size standard for this industry, which is $35 million or less in annual receipts.[[235]](#footnote-237) The 2012 U.S. Economic Census indicates that 14 firms in this industry operated throughout the entire year.[[236]](#footnote-238) Of that number, 5 firms had annual receipts of less than $25 million, while 1 firm had annual receipts between $25 million and $99,999,999.[[237]](#footnote-239) Based on this data, we conclude that approximately one-third of the firms in this industry are small.
12. *Freestanding Ambulatory Surgical and Emergency Centers*.This U.S. industry comprises establishments with physicians and other medical staff primarily engaged in (1) providing surgical services (e.g., orthoscopic and cataract surgery) on an outpatient basis or (2) providing emergency care services (e.g., setting broken bones, treating lacerations, or tending to patients suffering injuries as a result of accidents, trauma, or medical conditions necessitating immediate medical care) on an outpatient basis. Outpatient surgical establishments have specialized facilities, such as operating and recovery rooms, and specialized equipment, such as anesthetic or X-ray equipment.[[238]](#footnote-240) The SBA has established a size standard for this industry, which is annual receipts of $16.5 million or less.[[239]](#footnote-241) The 2012 U.S. Economic Census indicates that 3,595 firms in this industry operated throughout the entire year.[[240]](#footnote-242) Of that number, 3,222 firms had annual receipts of less than $10 million, while 289 firms had annual receipts between $10 million and $24,999,999.[[241]](#footnote-243) Based on this data, we conclude that a majority of firms in this industry are small.
13. *All Other Outpatient Care Centers*.This U.S. industry comprises establishments with medical staff primarily engaged in providing general or specialized outpatient care (except family planning centers, outpatient mental health and substance abuse centers, HMO medical centers, kidney dialysis centers, and freestanding ambulatory surgical and emergency centers). Centers or clinics of health practitioners with different degrees from more than one industry practicing within the same establishment (i.e., Doctor of Medicine and Doctor of Dental Medicine) are included in this industry.[[242]](#footnote-244) The SBA has established a size standard for this industry, which is annual receipts of $22 million or less.[[243]](#footnote-245) The 2012 U.S. Economic Census indicates that 4,903 firms operated in this industry throughout the entire year.[[244]](#footnote-246) Of this number, 4,269 firms had annual receipts of less than $10 million, while 389 firms had annual receipts between $10 million and $24,999,999.[[245]](#footnote-247) Based on this data, we conclude that a majority of firms in this industry are small.
14. *Blood and Organ Banks*.This U.S. industry comprises establishments primarily engaged in collecting, storing, and distributing blood and blood products and storing and distributing body organs.[[246]](#footnote-248) The SBA has established a size standard for this industry, which is annual receipts of $35 million or less.[[247]](#footnote-249) The 2012 U.S. Economic Census indicates that 314 firms operated in this industry throughout the entire year.[[248]](#footnote-250) Of that number, 235 operated with annual receipts of less than $25 million, while 41 firms had annual receipts between $25 million and $49,999,999.[[249]](#footnote-251) Based on this data, we conclude that approximately three-quarters of firms that operate in this industry are small.
15. *All Other Miscellaneous Ambulatory Health Care Services*.This U.S. industry comprises establishments primarily engaged in providing ambulatory health care services (except offices of physicians, dentists, and other health practitioners; outpatient care centers; medical and diagnostic laboratories; home health care providers; ambulances; and blood and organ banks).[[250]](#footnote-252) The SBA has established a size standard for this industry, which is annual receipts of $16.5 million or less.[[251]](#footnote-253) The 2012 U.S. Economic Census indicates that 2,429 firms operated in this industry throughout the entire year.[[252]](#footnote-254) Of that number, 2,318 had annual receipts of less than $10 million, while 56 firms had annual receipts between $10 million and $24,999,999.[[253]](#footnote-255) Based on this data, we conclude that a majority of the firms in this industry is small.
16. *Medical Laboratories*.This U.S. industry comprises establishments known as medical laboratories primarily engaged in providing analytic or diagnostic services, including body fluid analysis, generally to the medical profession or to the patient on referral from a health practitioner.[[254]](#footnote-256) The SBA has established a size standard for this industry, which is annual receipts of $35 million or less.[[255]](#footnote-257) The 2012 U.S. Economic Census indicates that 2,599 firms operated in this industry throughout the entire year.[[256]](#footnote-258) Of this number, 2,465 had annual receipts of less than $25 million, while 60 firms had annual receipts between $25 million and $49,999,999.[[257]](#footnote-259) Based on this data, we conclude that a majority of firms that operate in this industry are small. *Centers*.This U.S. industry comprises establishments known as diagnostic imaging centers primarily engaged in producing images of the patient generally on referral from a health practitioner.[[258]](#footnote-260) The SBA has established size standard for this industry, which is annual receipts of $16.5 million or less.[[259]](#footnote-261) The 2012 U.S. Economic Census indicates that 4,209 firms operated in this industry throughout the entire year.[[260]](#footnote-262) Of that number, 3,876 firms had annual receipts of less than $10 million, while 228 firms had annual receipts between $10 million and $24,999,999.[[261]](#footnote-263) Based on this data, we conclude that a majority of firms that operate in this industry are small.
17. *Home Health Care Services*.This U.S. industry comprises establishments primarily engaged in providing skilled nursing services in the home, along with a range of the following: personal care services; homemaker and companion services; physical therapy; medical social services; medications; medical equipment and supplies; counseling; 24-hour home care; occupation and vocational therapy; dietary and nutritional services; speech therapy; audiology; and high-tech care, such as intravenous therapy.[[262]](#footnote-264) The SBA has established a size standard for this industry, which is annual receipts of $16.5 million or less.[[263]](#footnote-265) The 2012 U.S. Economic Census indicates that 17,770 firms operated in this industry throughout the entire year.[[264]](#footnote-266) Of that number, 16,822 had annual receipts of less than $10 million, while 590 firms had annual receipts between $10 million and $24,999,999.[[265]](#footnote-267) Based on this data, we conclude that a majority of firms that operate in this industry are small.
18. *Ambulance Services*.This U.S. industry comprises establishments primarily engaged in providing transportation of patients by ground or air, along with medical care. These services are often provided during a medical emergency but are not restricted to emergencies. The vehicles are equipped with lifesaving equipment operated by medically trained personnel.[[266]](#footnote-268) The SBA has established a size standard for this industry, which is annual receipts of $16.5 million or less.[[267]](#footnote-269) The 2012 U.S. Economic Census indicates that 2,984 firms operated in this industry throughout the entire year.[[268]](#footnote-270) Of that number, 2,926 had annual receipts of less than $15 million, while 133 firms had annual receipts between $10 million and $24,999,999.[[269]](#footnote-271) Based on this data, we conclude that a majority of firms in this industry is small.
19. *Kidney Dialysis Centers*.This U.S. industry comprises establishments with medical staff primarily engaged in providing outpatient kidney or renal dialysis services.[[270]](#footnote-272) The SBA has established assize standard for this industry, which is annual receipts of $41.5 million or less.[[271]](#footnote-273) The 2012 U.S. Economic Census indicates that 396 firms operated in this industry throughout the entire year.[[272]](#footnote-274) Of that number, 379 had annual receipts of less than $25 million, while 7 firms had annual receipts between $25 million and $49,999,999.[[273]](#footnote-275) Based on this data, we conclude that a majority of firms in this industry are small.
20. *General Medical and Surgical Hospitals*. This U.S. industry comprises establishments known and licensed as general medical and surgical hospitals primarily engaged in providing diagnostic and medical treatment (both surgical and nonsurgical) to inpatients with any of a wide variety of medical conditions. These establishments maintain inpatient beds and provide patients with food services that meet their nutritional requirements. These hospitals have an organized staff of physicians and other medical staff to provide patient care services. These establishments usually provide other services, such as outpatient services, anatomical pathology services, diagnostic X-ray services, clinical laboratory services, operating room services for a variety of procedures, and pharmacy services.[[274]](#footnote-276) The SBA has established a size standard for this industry, which is annual receipts of $41.5 million or less.[[275]](#footnote-277) The 2012 U.S. Economic Census indicates that 2,800 firms operated in this industry throughout the entire year.[[276]](#footnote-278) Of that number, 877 has annual receipts of less than $25 million, while 400 firms had annual receipts between $25 million and $49,999,999.[[277]](#footnote-279) Based on this data, we conclude that approximately one-quarter of firms in this industry are small.
21. *Psychiatric and Substance Abuse Hospitals*. This U.S. industry comprises establishments known and licensed as psychiatric and substance abuse hospitals primarily engaged in providing diagnostic, medical treatment, and monitoring services for inpatients who suffer from mental illness or substance abuse disorders. The treatment often requires an extended stay in the hospital. These establishments maintain inpatient beds and provide patients with food services that meet their nutritional requirements. They have an organized staff of physicians and other medical staff to provide patient care services. Psychiatric, psychological, and social work services are available at the facility. These hospitals usually provide other services, such as outpatient services, clinical laboratory services, diagnostic X-ray services, and electroencephalograph services.[[278]](#footnote-280) The SBA has established a size standard for this industry, which is annual receipts of $41.5 million or less.[[279]](#footnote-281) The 2012 U.S. Economic Census indicates that 404 firms operated in this industry throughout the entire year.[[280]](#footnote-282) Of that number, 185 had annual receipts of less than $25 million, while 107 firms had annual receipts between $25 million and $49,999,999.[[281]](#footnote-283) Based on this data, we conclude that more than one-half of the firms in this industry are small.
22. *Specialty (Except Psychiatric and Substance Abuse) Hospitals*. This U.S. industry consists of establishments known and licensed as specialty hospitals primarily engaged in providing diagnostic, and medical treatment to inpatients with a specific type of disease or medical condition (except psychiatric or substance abuse). Hospitals providing long-term care for the chronically ill and hospitals providing rehabilitation, restorative, and adjustive services to physically challenged or disabled people are included in this industry. These establishments maintain inpatient beds and provide patients with food services that meet their nutritional requirements. They have an organized staff of physicians and other medical staff to provide patient care services. These hospitals may provide other services, such as outpatient services, diagnostic X-ray services, clinical laboratory services, operating room services, physical therapy services, educational and vocational services, and psychological and social work services.[[282]](#footnote-284) The SBA has established a size standard for this industry, which is annual receipts of $41.5 million or less.[[283]](#footnote-285) The 2012 U.S. Economic Census indicates that 346 firms operated in this industry throughout the entire year.[[284]](#footnote-286) Of that number, 146 firms had annual receipts of less than $25 million, while 79 firms had annual receipts between $25 million and $49,999,999.[[285]](#footnote-287) Based on this data, we conclude that more than one-half of the firms in this industry are small.
23. *Emergency and Other Relief Services*.This industry comprises establishments primarily engaged in providing food, shelter, clothing, medical relief, resettlement, and counseling to victims of domestic or international disasters or conflicts (e.g., wars). [[286]](#footnote-288) The SBA has established a size standard for this industry which is annual receipts of $35 million or less.[[287]](#footnote-289) The 2012 U.S. Economic Census indicates that 541 firms operated in this industry throughout the entire year.[[288]](#footnote-290) Of that number, 509 had annual receipts of less than $25 million, while 7 firms had annual receipts between $25 million and $49,999,999.[[289]](#footnote-291) Based on this data, we conclude that a majority of firms in this industry are small.

### Providers of Telecommunications and Other Services

#### Telecommunications Service Providers

1. *Incumbent Local Exchange Carriers (LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable NAICS Code category is Wired Telecommunications Carriers.[[290]](#footnote-292) Under the applicable SBA size standard, such a business is small if it has 1,500 or fewer employees.[[291]](#footnote-293) U.S. Census Bureau data for 2012 indicate that 3,117 firms operated the entire year.[[292]](#footnote-294) Of this total, 3,083 operated with fewer than 1,000 employees.[[293]](#footnote-295) Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses that may be affected by our actions. According to Commission data, one thousand three hundred and seven (1,307) Incumbent Local Exchange Carriers reported that they were incumbent local exchange service providers.[[294]](#footnote-296) Of this total, an estimated 1,006 have 1,500 or fewer employees.[[295]](#footnote-297) Thus, using the SBA’s size standard the majority of incumbent LECs can be considered small entities.
2. *Interexchange Carriers (IXCs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for Interexchange Carriers. The closest applicable NAICS Code category is Wired Telecommunications Carriers.[[296]](#footnote-298) The applicable size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.[[297]](#footnote-299) U.S. Census Bureau data for 2012 indicate that 3,117 firms operated for the entire year.[[298]](#footnote-300) Of that number, 3,083 operated with fewer than 1,000 employees.[[299]](#footnote-301) According to internally developed Commission data, 359 companies reported that their primary telecommunications service activity was the provision of interexchange services.[[300]](#footnote-302) Of this total, an estimated 317 have 1,500 or fewer employees.[[301]](#footnote-303) Consequently, the Commission estimates that the majority of interexchange service providers are small entities.
3. *Competitive Access Providers*. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to competitive access services providers (CAPs). The closest applicable definition under the SBA rules is Wired Telecommunications Carriers and under the size standard, such a business is small if it has 1,500 or fewer employees.[[302]](#footnote-304) U.S. Census Bureau data for 2012 indicates that 3,117 firms operated during that year.[[303]](#footnote-305) Of that number, 3,083 operated with fewer than 1,000 employees.[[304]](#footnote-306) Consequently, the Commission estimates that most competitive access providers are small businesses that may be affected by our actions*.* According to Commission data the *2010* *Trends in Telephone Report*, 1,442 CAPs and competitive local exchange carriers (competitive LECs) reported that they were engaged in the provision of competitive local exchange services.[[305]](#footnote-307) Of these 1,442 CAPs and competitive LECs, an estimated 1,256 have 1,500 or few employees and 186 have more than 1,500 employees.[[306]](#footnote-308) Consequently, the Commission estimates that most providers of competitive exchange services are small businesses.
4. *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 voice over Internet protocol (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.”[[307]](#footnote-309) 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.[[308]](#footnote-310) U.S. Census data for 2012 show that there were 3,117 firms that operated that year.[[309]](#footnote-311) Of this total, 3,083 operated with fewer than 1,000 employees.[[310]](#footnote-312) Thus, under this size standard, the majority of firms in this industry can be considered small.
5. *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.[[311]](#footnote-313) The appropriate size standard under SBA rules is that such a business is small if it has 1,500 or fewer employees.[[312]](#footnote-314) For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.[[313]](#footnote-315) Of this total, 955 firms employed fewer than 1,000 employees and 12 firms employed of 1000 employees or more.[[314]](#footnote-316) Thus under this category and the associated size standard, the Commission estimates that the majority of Wireless Telecommunications Carriers (except Satellite) are small entities.
6. The Commission’s own data—available in its Universal Licensing System—indicate that, as of August 31, 2018, there are 265 Cellular licensees that will be affected by our actions.[[315]](#footnote-317) The Commission does not know how many of these licensees are small, as the Commission does not collect that information for these types of entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) Telephony services.[[316]](#footnote-318) Of this total, an estimated 261 have 1,500 or fewer employees, and 152 have more than 1,500 employees.[[317]](#footnote-319) Thus, using available data, we estimate that the majority of wireless firms can be considered small.
7. *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).[[318]](#footnote-320) Under the SBA small business size standard, a business is small if it has 1,500 or fewer employees.[[319]](#footnote-321) For this industry, U.S. Census Bureau data for 2012 show that there were 967 firms that operated for the entire year.[[320]](#footnote-322) Of this total, 955 firms had fewer than 1,000 employees and 12 firms had 1000 employees or more.[[321]](#footnote-323) 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.[[322]](#footnote-324) Of these, an estimated 261 have 1,500 or fewer employees and 152 have more than 1,500 employees.[[323]](#footnote-325) Therefore, more than half of these entities can be considered small.
8. ***Satellite Telecommunications.*** 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.”[[324]](#footnote-326) Satellite telecommunications service providers include satellite and earth station operators. The category has a small business size standard of $35 million or less in average annual receipts, under SBA rules.[[325]](#footnote-327) For this category, U.S. Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year.[[326]](#footnote-328) Of this total, 299 firms had annual receipts of less than $25 million.[[327]](#footnote-329) Consequently, we estimate that the majority of satellite telecommunications providers are small entities.
9. *All Other Telecommunications*. The **“**All Other Telecommunications” category is comprised of establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation.[[328]](#footnote-330) 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.[[329]](#footnote-331) Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.[[330]](#footnote-332) The SBA has developed a small business size standard for “All Other Telecommunications,” which consists of all such firms with annual receipts of $35 million or less.[[331]](#footnote-333) For this category, U.S. Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year.[[332]](#footnote-334) Of those firms, a total of 1,400 had annual receipts less than $25 million and 15 firms had annual receipts of $25 million to $49, 999,999.[[333]](#footnote-335) Thus, the Commission estimates that the majority of “All Other Telecommunications” firms potentially affected by our action can be considered small.

#### Internet Service Providers

1. *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.[[334]](#footnote-336) 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.[[335]](#footnote-337) The SBA size standard for this category classifies a business as small if it has 1,500 or fewer employees.[[336]](#footnote-338) U.S. Census Bureau data for 2012 show that there were 3,117 firms that operated that year.[[337]](#footnote-339) Of this total, 3,083 operated with fewer than 1,000 employees.[[338]](#footnote-340) Consequently, under this size standard the majority of firms in this industry can be considered small.
2. *Internet**Service**Providers (Non-Broadband).* Internet access service providers such as Dial-up Internet service providers, VoIP service providers using client-supplied telecommunications connections and Internet service providers using client-supplied telecommunications connections (e.g., dial-up ISPs) fall in the category of All Other Telecommunications.[[339]](#footnote-341) The SBA has developed a small business size standard for All Other Telecommunications which consists of all such firms with gross annual receipts of $35 million or less.[[340]](#footnote-342) For this category, U.S. Census Bureau data for 2012 show that there were 1,442 firms that operated for the entire year.[[341]](#footnote-343) Of these firms, a total of 1,400 had gross annual receipts of less than $25 million.[[342]](#footnote-344) Consequently, under this size standard a majority of firms in this industry can be considered small.

#### Vendors and Equipment Manufacturers

1. *Vendors of Infrastructure Development or “Network Buildout.”* The Commission has not developed a small business size standard specifically directed toward manufacturers of network facilities. There are two applicable SBA categories in which manufacturers of network facilities could fall and each have different size standards under the SBA rules. The SBA categories are “Radio and Television Broadcasting and Wireless Communications Equipment” with a size standard of 1,250 employees or less[[343]](#footnote-345) and “Other Communications Equipment Manufacturing” with a size standard of 750 employees or less.”[[344]](#footnote-346) U.S. Census Bureau data for 2012 shows that for Radio and Television Broadcasting and Wireless Communications Equipment firms 841 establishments operated for the entire year.[[345]](#footnote-347) Of that number, 828 establishments operated with fewer than 1,000 employees, and 7 establishments operated with between 1,000 and 2,499 employees.[[346]](#footnote-348) For Other Communications Equipment Manufacturing, U.S. Census Bureau data for 2012, show that 383 establishments operated for the year.[[347]](#footnote-349) Of that number 379 operated with fewer than 500 employees and 4 had 500 to 999 employees.[[348]](#footnote-350) Based on this data, we conclude that the majority of Vendors of Infrastructure Development or “Network Buildout” are small.
2. *Telephone Apparatus Manufacturing*. This industry comprises establishments primarily engaged in manufacturing wire telephone and data communications equipment.[[349]](#footnote-351) These products may be stand-alone or board-level components of a larger system. Examples of products made by these establishments are central office switching equipment, cordless and wire telephones (except cellular), PBX equipment, telephone answering machines, LAN modems, multi-user modems, and other data communications equipment, such as bridges, routers, and gateways.[[350]](#footnote-352) The SBA has developed a small business size standard for Telephone Apparatus Manufacturing, which consists of all such companies having 1,250 or fewer employees.[[351]](#footnote-353) U.S. Census Bureau data for 2012 show that there were 266 establishments that operated that year.[[352]](#footnote-354) Of this total, 262 operated with fewer than 1,000 employees.[[353]](#footnote-355) Thus, under this size standard, the majority of firms in this industry can be considered small.
3. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing*. This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment.[[354]](#footnote-356) Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.[[355]](#footnote-357) The SBA has established a small business size standard for this industry of 1,250 or fewer employees.[[356]](#footnote-358) U.S. Census Bureau data for 2012 show that 841 establishments operated in this industry in that year.[[357]](#footnote-359) Of that number, 828 establishments operated with fewer than 1,000 employees, 7 establishments operated with between 1,000 and 2,499 employees and 6 establishments operated with 2,500 or more employees.[[358]](#footnote-360) Based on this data, we conclude that a majority of manufacturers in this industry are small.
4. *Other Communications Equipment Manufacturing*. This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment).[[359]](#footnote-361) Examples of such manufacturing include fire detection and alarm systems manufacturing, Intercom systems and equipment manufacturing, and signals (e.g., highway, pedestrian, railway, traffic) manufacturing.[[360]](#footnote-362) The SBA has established a size standard for this industry as all such firms having 750 or fewer employees.[[361]](#footnote-363) U.S. Census Bureau data for 2012 shows that 383 establishments operated in that year.[[362]](#footnote-364) Of that number, 379 operated with fewer than 500 employees and 4 had 500 to 999 employees.[[363]](#footnote-365) Based on this data, we conclude that the majority of Other Communications Equipment Manufacturers are small.

## Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

1. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(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 and reporting requirements under the rule for such 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 such small entities.” We expect to consider all of these factors when we have received substantive comment from the public and potentially affected entities.
2. Largely, the proposals in this Further Notice if adopted would have no impact on or would reduce the economic impact of current regulations on small entities. Certain proposals could have a positive economic impact on small entities. In this Further Notice we seek comment on changes that would streamline and simplify the application process; maximize efficient and fair distribution of support; and increase support for small entities relative to their larger counterparts, thereby decreasing the net economic burden on small entities. In the instances in which a proposed change would increase the financial burden on small entities, we have determined that the net financial and other benefits from such changes would outweigh the increased burdens on small entities.
3. *Determining Accurate Rates in the Telecom Program*. To minimize potential rate variances and anomalies, we seek comment on how to determine accurate and reasonable urban and rural rates in the Telecom Program. We specifically seek input on how to define and evaluate rurality to determine what areas are comparable for purposes of determining rates.  We then seek comment on what factors to consider when differentiating rural areas. We seek comment on approaches to analyzing existing data that would result in more accurate urban and rural rates such as establishing potential changes to the Telecom Program’s categorization of service technologies that could further improve the accuracy of urban and rural rates in future funding years. We also seek comment on ways to improve and modify our current rate determination mechanism, the Rates Database, based on existing data. We also seek comment on an alternative model to our Rates Database.
4. *Harmonizing the* *Invoicing Process in the Telecom and HCF Program*. Currently, there are separate invoicing processes for the two programs.  To alleviate inefficiencies and to further protect against waste, fraud, and abuse in the Rural Health Care Program, we propose to revise our rules to eliminate the use of HSSs in the Telecom Program and align the Telecom Program’s invoicing process with the Healthcare Connect Fund Program’s invoicing rules, which are simpler than the Telecom Program’s current invoicing rules.  Specifically, we propose to have participants in both programs invoice for services actually provided using the FCC Form 463 rather than use HSSs in the Telecom Program.
5. *Reform of Program Funding Cap*. We propose and seek comment on reforming the Rural Health Care Program’s funding cap. Specifically, we propose to amend our current rules so that the internal cap for upfront costs and multi-year commitments apply only if available funding for the entire program is exceeded. We additionally seek comment on a two-tiered system that would distribute funding first to upfront costs and the first year of multi-year commitments and then the second and third year of multi-year commitments until the internal cap is reached.

## Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

1. None.

**Statement of**

**CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Promoting Telehealth in Rural America*, Further Notice of Proposed Rulemaking, WC Docket No. 17-310, (February 18, 2022)

It’s been said before, it will be said again: This pandemic has changed so much in our lives. As a nation, we moved so many things online. We converted all kinds of activities from physical to digital. We expanded the ways we communicate and have made it a priority like never before to connect all.

But among the most revolutionary changes we have seen during this period have been in healthcare. You see it clearly in the heroism of medical professionals across the country, the development of new vaccines, and the expansion of telemedicine that has changed so much in healthcare, so fast.

After all there was a time, not that long ago, when telemedicine technologies were strictly for remote communities. But this pandemic has changed all that. It has moved virtual appointments into mainstream medicine—for urban America, rural America, and everything in-between.

We’ve seen this upfront at the Federal Communications Commission, where we have worked since the start of the pandemic to support healthcare providers with resources for video visits, remote monitoring, and online counseling. In fact, our new COVID-19 telehealth programs have distributed nearly $450 million in support since the pandemic began.

Now we turn to a check up on our oldest telemedicine program—the Rural Health Care Program. For more than 25 years it has been a force for good, supporting telehealth services before it was trendy—or easy—to do so. I have witnessed the power of this program in pre-pandemic days—in village clinics in Alaska and rural hospitals in Montana. The creativity of the medical professionals and the gratitude of the patients stays with you when you see it up close.

Today we are going to build on that and address some glitches that have ailed this program in the recent past. To be clear, we are talking about the oldest part of the Rural Health Care Program, which is known as the Telecom Program. Under the Communications Act this program provides support to rural healthcare providers for the difference between the rates they are charged for communications and those they would be charged for comparable service in urban areas.

In practice, the Telecom Program is a lifeline that supports telehealth efforts in some of the most remote parts of this country, so we have to get our reforms right. But I think the FCC got some of its reforms to this program wrong during the past few years. It set up a database of urban and rural rates that used tiers to determine what the Telecom Program would support. But this database had problems. For example, in Alaska, the database featured a rate for a dedicated transmission service in the Extremely Rural tier that was lower than the rate for the same service in the Less Rural tier. And in California, the database showed that a 50 Mbps connection was cheaper than a 20 Mbps connection. This doesn’t make sense. So for the last two years of this program, the FCC waived the use of this database. Now I think we need to fix it for good. So we offer a number of different options in this rulemaking, including a revised database of rural and urban rates, a regression model developed by our Office of Economics and Analytics, and other ideas. But the bottom line is that we need a system that works for the communities that depend on the Telecom Program because it provides essential healthcare in places that need it most.

While we are at it, in this rulemaking we also ask questions about other changes to the Rural Healthcare Program, including revisions to our funding cap and ways to streamline the process for providers.

We take these steps because we want the Rural Health Care Program to thrive—not just in the past, not just during the pandemic, but in the future.

Thank you to the staff worked on this rulemaking: Bryan Boyle, Callie Coker, Adam Copeland, Charles Eberle, Jodie Griffin, Kris Monteith, Kiara Ortiz, Hayley Steffen, and Helen Zhang of the Wireline Competition Bureau; Keaton Cobble, Stacy Jordan, Eugene Kiselev, Eric Ralph, Donald Stockdale, and Shane Taylor of the Office of Economics and Analytics, and Valerie Hill, Richard Mallen, Linda Oliver, and Bill Richardson of the Office of General Counsel.

**Statement of**

**COMMISSIONER BRENDAN CARR**

Re: *Promoting Telehealth in Rural America*, Further Notice of Proposed Rulemaking, WC Docket No. 17-310, (February 18, 2022).

Manokotak, Alaska, is a remote, one-street village that sits roughly 340 miles southwest of Anchorage. Your Waze app won’t help you get there. And there isn’t a lot of traffic on the town’s dirt road because the community is completely cut off from the highway system. The village is nestled between a small mountain called Acorn Peak and one of the meandering bends of the Igushik River. It can only be accessed by air or water. And that presents a unique set of challenges for the 440 or so people—mostly Alaska Natives—that live there. Access to affordable, high-quality healthcare has long been one of those challenges.

The closest hospital is in Dillingham (pop. 2,249), and I had the chance to travel to Manokotak from Dillingham in 2018. After taking a commercial flight to Dillingham from Anchorage, we climbed a few rickety steps up into an old Grumman Goose that was built in 1944. Despite its age, the pilot assured us that it the plane was still a very airworthy craft. Good news from my perspective is that we didn’t need to get that far off the ground during the roughly 15-minute commuter flight. We landed at Manokotak’s gravel runway and hopped in a car for the one-mile drive down rough roads to the village center. That’s where we met up with the healthcare professionals that work at the Manokotak Village Clinic. The team there talked about the value that a high-speed Internet connection brings to their small operation and to other remote parts of Alaska. Rather than incurring the expense and time associated with life-flighting someone out of the village—an experience that only isolates a patient from their family and community—Manokotak’s Internet connection allows the clinics to tap virtually into the health care specialists back in Dillingham or Anchorage. That means more patients are able to access affordable and quality care while getting to stay with their loved ones in their home community. That is a good thing.

Vital telehealth connections like this are often only possible with support from the FCC’s Rural Health Care Program. Ensuring that this program has the sufficient and predictable levels of support it needs is not just a nice policy goal—it’s a statutory obligation for the FCC. And on this score, the agency has not always gotten it right. In the past, the FCC’s support mechanism has led to unpredictable funding levels and inconsistent rates. Demand for funding has outstripped the program’s annual budget. And the process of administering the program and processing funding requests has led to backlogs and delays.

Senator Sullivan and others have been strong advocates for ensuring that the FCC corrects for these mistakes and stands up a program that meets the agency’s statutory obligations. I have welcomed the chance to work with my FCC colleagues on doing just that. In 2018, for instance, we raised the overall cap of the program and established a process to annually adjust the cap to reflect inflation. In 2020, we waived the FCC’s cap on upfront payments and multi-year commitments to ensure that all program requests could be funded in full during the COVID-19 pandemic. And in January and April of 2021, we issued waivers to address anomalies in the Telecom Program’s rates database—anomalies that would have contributed to an inadequate and inconsistent level of support for providers. We have also waived a number of other program rules to provide relief to program participants and alleviate administrative burdens throughout the COVID-19 pandemic.

While these have been important steps in the right direction, it is clear that the FCC must embrace more fundamental—and permanent—changes to our Rural Health Care Program. This item explores how we can do just that. I am pleased in particular that we are seeking comment on new ways of calculating rural rates that will not lead to the types of anomalies discovered in the rates database. I am also pleased that today’s item now seeks comment on whether the existing funding cap is sufficient to satisfy future demand for the program or whether we should increase it. After all, serving remote health care clinics like the one in Manokotak requires expensive, years’ long investments. We must ensure that the program provides the required certainty to providers year after year as demand for these types of services continues to explode.

Finally, I am grateful that my colleagues agreed to expand the item so that it now seeks comment on some of the administrative delays and other burdens that providers continue to face at USAC during the application and appeals processes. Over the years, we have heard numerous complaints that USAC takes too long to process applications and make funding decisions. Today, we seek comment on whether there are additional actions the FCC can take to expedite application processing or to require USAC to make funding commitment decisions in a more timely manner. We also seek comment on whether USAC or the FCC should be required to act on appeals of such decisions in a certain timeframe—particularly when such appeals are tied to the administrative errors of USAC—and whether there are other steps we can take to reduce administrative burdens and costs for providers while maintaining the integrity of the program.

I want to express my thanks to Chairwoman Rosenworcel for bringing this item forward for a vote. I am confident we can work together to strengthen the rules to the benefit of rural health care providers across the country. And finally, I want to than the staff of the Wireline Competition Bureau for their hard work on the item. It has my support.

**Statement of**

**COMMISSIONER GEOFFREY STARKS**

Re: *Promoting Telehealth in Rural America*, Further Notice of Proposed Rulemaking, WC Docket No. 17-310, (February 18, 2022).

The COVID-19 pandemic has highlighted the importance of telehealth for millions of Americans. For people across the country, telehealth allows for remote diagnoses and treatment when patients can’t travel to meet their doctors in person. This health care alternative is critically important to communities across the country, and especially in rural America, which continues to see limited medical resources stretched even further. For doctors to stay connected to their patients, rural health care providers must have high-quality broadband services.

The Commission’s Rural Health Care Program helps rural health care providers obtain the same level of connectivity as their urban counterparts, at comparable rates. I’m glad we’re taking another look at this important program. When the Commission last considered changes to the Rural Health Care program back in 2019, I expressed concern about how those changes would affect health care providers and the telecom providers that serve them. As I’d done in other proceedings, I called for the Commission to collect and utilize the best available data and raised specific questions about how we would compare rates between urban and rural communities. Then-Commissioner Rosenworcel shared my concerns, and we both urged that the Commission conduct additional notice and comment. Unfortunately, our concerns were not taken up, and as we feared, implementation of the new rules revealed serious problems with the data used to calculate support.

I appreciate that Chairwoman Rosenworcel is taking steps to address these issues and consider how we can make this important program even better. Today’s order seeks input on critical questions like how to classify different areas based on rurality; how to differentiate similar services; how to improve data quality for rural health care providers; and whether we should adopt a transition period as we implement new rules. We also take steps to reduce fraud and make the program more effective and efficient. I look forward to the comments and moving forward to improve the Rural Health Care program.

Thank you to the staff at the Wireline Competition Bureau for their hard work on this proceeding.

1. *See* 47 U.S.C. § 254(h)(1)(A); *see Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9093-9161 paras. 608-749 (1997) (*Universal Service First Report and Order*). [↑](#footnote-ref-3)
2. *See* 47 U.S.C. § 254(h)(1)(A). [↑](#footnote-ref-4)
3. *See* *id*. [↑](#footnote-ref-5)
4. *See* 47 U.S.C. § 254(h)(2)(A); *Rural Health Care Support Mechanism*, WC Docket No. 02-60, Report and Order, 27 FCC Rcd 16678 (2012) (*HCF Order*). The HCF Program replaced the existing Internet Access Program, also enacted pursuant to section 254(h)(2)(A), which provided healthcare providers with a 25 percent discount for Internet access service. *See HCF Order*, 27 FCC Rcd at 16681, n.9. [↑](#footnote-ref-6)
5. *See* 47 U.S.C. § 254(h)(2)(A); 47 CFR § 54.611;(b); *see* *also* *HCF Order*, 27 FCC Rcd at 16680, 16861, 16733, paras. 1, 48, 118. [↑](#footnote-ref-7)
6. *Promoting Telehealth in Rural America*, WC Docket No. 17-310, Report and Order, 34 FCC Rcd 7335 (2019) (*Promoting Telehealth Report and Order*). Petitions for Reconsideration of various aspects of the *Promoting Telehealth Report and Order* are currently pending before the Commission. *See* Alaska Communications Petition for Reconsideration, WC Docket No. 17-310 (filed Nov. 12, 2019) (Alaska Communications Petition) (arguing that rural rates should be determined by competitive bidding and that the Rates Database is an impermissible delegation of authority to USAC, and challenging elements of the Rates Database; requesting clarifications to site and service substitution rules); North Carolina Telehealth Network Association and Southern Ohio Health Care Network Petition for Reconsideration and Clarification, WC Docket No. 17-310 (filed Nov. 12, 2019) (NCTNA/SOHCN Petition) (requesting reconsideration of the rurality determination method); Schools, Health and Libraries Broadband Coalition Petition for Reconsideration and Clarification, WC Docket No. 17-310 (filed Nov. 12, 2019) (SHLB Petition) (arguing that rural rates should be determined by competitive bidding and that the Rates Database is an impermissible delegation of authority to USAC; arguing that the Commission did not provide sufficient guidance to USAC on how to determine if services are functionally similar; requesting changes to rules regarding medically underserved areas and populations; requesting reconsideration of the funding prioritization rules); State of Alaska, Office of the Governor Petition for Reconsideration, WC Docket No. 17-310 (filed Nov. 12, 2019) (State of Alaska Petition) (challenging the Rates Database rurality tiers); USTelecom – The Broadband Association Petition for Reconsideration and Clarification, WC Docket No. 17-310 (filed Nov. 12, 2019) (USTelecom Petition) (arguing that the Rates Database is an impermissible delegation of authority to USAC and inclusion of rates for non-telecommunications services was done without proper notice; requesting a clarification of the urban rate certification rule). A Public Notice seeking comment on the Petitions for Reconsideration was released on December 5, 2019. Petitions for Reconsideration for Action in Proceeding, WC Docket No. 17-310, Public Notice, Report No. 3136 (rel. Dec. 5, 2019); *see also* Federal Communications Commission, Petitions for Reconsideration of Action in Proceeding, 84 FR 69697 (Dec. 19, 2019). [↑](#footnote-ref-8)
7. *See* 47 CFR § 54.622-54.623; *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7406-15, paras. 153-71. [↑](#footnote-ref-9)
8. *See* 47 CFR § 54.621(b); *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7390-96, paras. 116-29. [↑](#footnote-ref-10)
9. *See* 47 CFR §§ 54.624-627; *Promoting Telehealth Report and Order,* 34 FCC Rcd at 7429-33, paras. 203-12. [↑](#footnote-ref-11)
10. *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7363-72, paras. 53-75. [↑](#footnote-ref-12)
11. *Id*. at 7372, para. 78. [↑](#footnote-ref-13)
12. For the purposes of section 254 of the Communications Act, the Commission has treated a “rate” as a single rate for a complete end-to-end service, and not rates for components of a service. *See Universal Service First Report and Order*, 12 FCC Rcd at 9128-29, paras. 674-75. [↑](#footnote-ref-14)
13. 47 CFR § 54.607(a), (b) (2019). [↑](#footnote-ref-15)
14. 47 CFR § 54.607(b)(1) (2019). [↑](#footnote-ref-16)
15. 47 CFR § 54.605(a) (2019). [↑](#footnote-ref-17)
16. *See* FCC Form 466 Instructions, at 8 (2019). [↑](#footnote-ref-18)
17. *See id.* [↑](#footnote-ref-19)
18. *See, e.g.*, *DataConnex, LLC*, Notice of Apparent Liability for Forfeiture and Order, 33 FCC Rcd 1575 (2018)(*DataConnex NAL*)(proposing an approximately $19 million forfeiture for alleged violations of the Commission’s rules, including the use of documents containing forged, false, misleading, and unsubstantiated information, including material misrepresentations, to increase its receipt of payments from the Telecom Program); *Network Services Solutions, LLC, Scott Madison*, Amendment to Notice of Apparent Liability for Forfeiture and Order, 32 FCC Rcd 5169 (2017) (proposing an approximately $22 million forfeiture for alleged violations including preparing and transmitting apparently forged and false urban rate documents). [↑](#footnote-ref-20)
19. *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7363-65, paras. 56-58 (discussing year-over-year increases to rural rates). The steady uptick of expenditures on a per-site basis in the Telecom Program demonstrates the problems with waste, fraud, and abuse. Aggregate rural rates per individual health care provider site more than doubled from $37,755 in funding year 2011 to $84,797 in funding year 2016while the proportion of the cost of supported services paid by the USF increased from 72 percent to 95 percent. *See id*. at 7357-58, Fig. 5. [↑](#footnote-ref-21)
20. *See* *id*. at 7373-74, paras. 80-81. [↑](#footnote-ref-22)
21. *See* *id*. at 7360, para. 46. [↑](#footnote-ref-23)
22. *See id*. at 7364, para. 56. [↑](#footnote-ref-24)
23. *See id*. at 7339, Fig. 1 (showing original commitments for funding years 2012-2017); *see* *also* *id*. at 7357-58, Fig. 5 (showing out-of-pocket expenses for health care providers for funding years 2012-2017). [↑](#footnote-ref-25)
24. *Id*. at 7364, para. 58. [↑](#footnote-ref-26)
25. *Id*. at 7364-65, para. 58. [↑](#footnote-ref-27)
26. *See* *id*. at 7342, para. 12. [↑](#footnote-ref-28)
27. *See* *id*. at 7342-43, para. 13. [↑](#footnote-ref-29)
28. *See* 47 CFR §§ 54.604(b), 54.605(b). On June 30, 2020, the Bureau issued the *Rates Database Guidance Letter*, a detailed guidance letter providing direction to the Administrator on how to treat services and data when identifying rural and urban rates for the rates database. *See* Letter from Kris Anne Monteith, Chief, FCC Wireline Competition Bureau, to Radha Sekar, Chief Executive Officer, Universal Service Administrative Company, 35 FCC Rcd 6708 (WCB 2020) (*Database Guidance Letter*). There are two pending Applications for Review of the *Rates Database Guidance Letter*. *See* Application for Review of GCI Communication Corp., WC Docket No. 17-310 (filed July 30, 2020), <https://www.fcc.gov/ecfs/filing/107300879611053>; Alaska Communications Application for Review, WC Docket No. 17-310 (filed July 30, 2020), <https://www.fcc.gov/ecfs/filing/1073032203355>. [↑](#footnote-ref-30)
29. *See* *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7365, para. 61. To assist in the rate-determination process, service providers were encouraged to bring their available urban and rural rate data to the Administrator’s attention. *See* *id*. [↑](#footnote-ref-31)
30. Under the existing definition, a rural area is “an area that is entirely outside of a Core Based Statistical Area; is within a Core Based Statistical Area that does not have any Urban Area with a population of 25,000 or greater; or is in a Core Based Statistical Area that contains an Urban Area with a population of 25,000 or greater, but is within a specific census tract that itself does not contain any part of a Place or Urban Area with a population of greater than 25,000. 47 CFR § 54.600(b)(1) (2019). For purposes of this rule, “Core Based Statistical Area,” “Urban Area,” and “Place” are as identified by the Census Bureau. *Id.* A Core Based Statistical Area is “a statistical geographic entity consisting of the county or counties associated with at least one core (a densely settled concentration of population, comprising either an urbanized area (of 50,000 or more population) or an urban cluster (of 10,000 to 49,999 population) defined by the Census Bureau) of at least 10,000 people, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties containing the core. Metropolitan and Micropolitan Statistical Areas are the two categories of Core Based Statistical Areas.” *Rural Health Care Support Mechanism,* WC Docket No. 02-60, Second Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 19 FCC Rcd 24613, 24618, para. 12 n.44 (2004) (*Rural Health Care Second Report and Order*). [↑](#footnote-ref-32)
31. *See* *Promoting Telehealth Order*, 34 FCC Rcd at 7350, para. 32. Under the Commission’s rules, the rurality tiers are defined as Less Rural, Rural, Extremely Rural, and Frontier. 47 CFR § 54.605(a)(1)(i)-(iv). Less Rural areas are those that contain an urban area with a population of 25,000 or greater but are within a specific census tract that itself does not contain any part of a Place or Urban Area with a population of greater than 25,000. *Id*. § 54.605(a)(1)(iii). Rural areas are those that are within a Core Based Statistical Area that does not have an Urban Area with a population of 25,000 or greater. *Id*. § 54.605(a)(1)(ii). Extremely Rural areas are those that are entirely outside of a Core Based Statistical Area. *Id*. § 54.605(a)(1)(i). Frontier areas are located in Alaska only, in areas outside of a Core Based Statistical Area that are inaccessible by road as determined by the Alaska Department of Commerce, Community, and Economic Development, Division of Community and Regional Affairs. *Id*. § 54.605(a)(1)(iv). [↑](#footnote-ref-33)
32. 47 CFR § 54.605(a)(iv); *Promoting Telehealth Report and Order*, 34 FCC Rcdat 7352, para. 34. [↑](#footnote-ref-34)
33. *See* *Promoting Telehealth Report and Order*, 34 FCC Rcdat 7363, para. 53. [↑](#footnote-ref-35)
34. 47 CFR § 54.605(a). [↑](#footnote-ref-36)
35. 47 CFR § 54.604(a). [↑](#footnote-ref-37)
36. *See Wireline Competition Bureau Provides Guidance on the Implementation Schedule for Reforms Adopted by the Rural Health Care Program Promoting Telehealth Report and Order*, WC Docket No. 17-310, Public Notice, 34 FCC Rcd 11983, 11985 (WCB 2019) (*Promoting Telehealth Implementation Public Notice*)*.* [↑](#footnote-ref-38)
37. *Promoting Telehealth Report and Order*, 34 FCC Rcdat 7351, para. 33*; see also* *Connect America Fund, et al.*, WC Docket No. 10-90, et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, 17717 n.220 (2011) (noting that the same characteristics, such as lack of [population] density, that make it expensive to provide voice service make it expensive to provide broadband service as well); FCC, *Connecting America: The National Broadband Plan*, at 136 (2010), www.broadband.gov/download-plan (last visited Feb. 18, 2022)(observing that “[b]ecause service providers in these [areas with low population density] cannot earn enough revenue to cover the costs of deploying and operating broadband networks, including expected returns on capital, there is no business case to offer broadband services in these areas”). [↑](#footnote-ref-39)
38. *See* USAC, Rural Health Care Program Tools, Rates Database, <https://rhc.usac.org/ratesdb/#/ratesSearch> (last visited Feb. 18, 2022). [↑](#footnote-ref-40)
39. *See* *id*. [↑](#footnote-ref-41)
40. *Alaska Rates Database Waiver Order* at 1, para. 2. [↑](#footnote-ref-42)
41. Letter from John Windhausen, Jr., Executive Director, SHLB, to Jessica Rosenworcel, Acting Chairwoman, FCC, et al., WC Docket No. 17-310 (filed Jan. 25, 2021) (SHLB Request Letter). [↑](#footnote-ref-43)
42. SHLB Request Letter at 3-4. [↑](#footnote-ref-44)
43. *Id*. at 4. Following SHLB’s Letter, a number of other stakeholders filed letters expressing similar concerns in support of SHLB’s request to waive the Rates Database for health care providers outside of Alaska. *See* Letter from Angie Kronenberg, Chief Advocate and General Counsel, INCOMPAS, to Marlene H. Dortch, Secretary, Federal Communications Commission, WC Docket No. 17-310 (filed Feb. 12, 2021) (INCOMPAS Letter) (supporting SHLB’s argument that requiring health care providers to use the database this year will result in them having to pay, on average, triple the out-of-pocket costs they did previously for the same bandwidths as the database appears to have some flaws that result in negative subsidies or triple out-of-pocket costs for providers); *see* *also* Letter from Dan Kettwich, Chief Executive Officer, ADS Advanced Data Services, to Jessica Rosenworcel, Acting Chairwoman, Federal Communications Commission, et. al, WC Docket No. 17-310 (filed Feb. 3, 2021) (ADS Letter). [↑](#footnote-ref-45)
44. *See Nationwide Rates Database Waiver Order* at 1, para. 1. [↑](#footnote-ref-46)
45. *Id.* at 9, para. 20. [↑](#footnote-ref-47)
46. Health care providers and their service providers may continue to use Method 1, Method 2, or Method 3 to calculate rural rates, using the same processes for submission and review of rates that applied for funding year 2020. *See* *id*. at 7-8, 9-10, paras. 16-17, 23. [↑](#footnote-ref-48)
47. In the *Alaska Rates Database Waiver Order*, the Bureau waived section 54.605(a) for funding year 2022 unless the Commission separately addressed pending petitions for reconsideration of the *Promoting Telehealth Report and Order* by January 19, 2022. *Alaska Rates Database Waiver Order* at 1, para. 2. To provide certainty to applicants and service providers on the rates available for funding year 2022 when competitive bidding for funding year 2022 begins on July 1, 2021, the Bureau extended the waiver granted in the *Alaska Rates Database Waiver Order* through funding year 2022 regardless of when the pending petitions for reconsideration are resolved. *Nationwide Rates Database Waiver Order* at 6, para. 12, n.39. [↑](#footnote-ref-49)
48. The amount of the discount health care providers receive in the Telecom Program is the difference between the urban rate, which must be “reasonably comparable to the rates charged for similar services in urban areas in that State,” and the rural rate, which is “the rates for similar services provided to other customers in comparable rural areas.” 47 U.S.C. § 254(h)(1)(A). [↑](#footnote-ref-50)
49. *See* *id*. [↑](#footnote-ref-51)
50. *See id.* [↑](#footnote-ref-52)
51. Under the existing definition, a rural area is “an area that is entirely outside of a Core Based Statistical Area; is within a Core Based Statistical Area that does not have any Urban Area with a population of 25,000 or greater; or is in a Core Based Statistical Area that contains an Urban Area with a population of 25,000 or greater, but is within a specific census tract that itself does not contain any part of a Place or Urban Area with a population of greater than 25,000.” 47 CFR § 54.600(e). A Core Based Statistical Area is “a statistical geographic entity consisting of the county or counties associated with at least one core (a densely settled concentration of population, comprising either an urbanized area (of 50,000 or more population) or an urban cluster (of 10,000 to 49,999 population) defined by the Census Bureau) of at least 10,000 people, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties containing the core. Metropolitan and Micropolitan Statistical Areas are the two categories of Core Based Statistical Areas.” *Rural Health Care Second Report and Order*, 19 FCC Rcd at 24618, para. 12 n.44. [↑](#footnote-ref-53)
52. *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7397, para. 131 (noting that there was no evidence in the record to indicate that the current definition was not working as intended to identify rural areas for program eligibility and support). [↑](#footnote-ref-54)
53. *Id*. at 7397, para. 130. [↑](#footnote-ref-55)
54. *See* *Rural Health Care Second Report and Order*, 19 FCC Rcd at 24617-24, paras. 9-23. The methodology used to identify rural areas within Metropolitan Statistical Areas was altered to rely on Rural Urban Commuting Area (RUCA) codes. The FORHP within the Health Resources & Services Administration developed RUCA codes in collaboration with the U.S. Department of Agriculture’s Economic Research Service. The codes “are a Census tract-based classification scheme that use Census Bureau Urbanized Areas and Urban Clusters in combination with commuting information to characterize all of the nation's census tracts regarding their rural and urban status and relationships.” Rural Health Information Hub, *What are RUCA codes?* (Feb. 8, 2018), <https://www.ruralhealthinfo.org/topics/what-is-rural#goldsmith-modification> (last visited Feb. 18, 2022). [↑](#footnote-ref-56)
55. *See Rural Health Care Second Report and Order*, 19 FCC Rcd at 24619, para. 12; *see* *also* *Rural Health Care and Support Mechanism*, WC Docket No, 02-60, Order and Notice of Proposed Rulemaking, 26 FCC Rcd 9145, 9149, para. 10 (2011). [↑](#footnote-ref-57)
56. *Cf.* 47 CFR § 54.605(a). [↑](#footnote-ref-58)
57. *See* 47 U.S.C. § 254 (h)(1)(A). [↑](#footnote-ref-59)
58. *See Promoting Telehealth Report and Order*, 34 FCC Rcd at 7349, para. 29. *Cf.* 47 CFR § 54.605 (noting that the Rates Database lists rates for each service by rurality tier within each state). [↑](#footnote-ref-60)
59. *See* *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7355, para. 37. [↑](#footnote-ref-61)
60. *See* 47 CFR § 54.605(a). [↑](#footnote-ref-62)
61. *See* *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7351-7352, para. 33. [↑](#footnote-ref-63)
62. *See* *id.* at 7353-7354, para. 36. [↑](#footnote-ref-64)
63. *Id*. at 7353, para. 34. [↑](#footnote-ref-65)
64. *Promoting Telehealth Order*, 34 FCC Rcd at 7351-7352, para. 33; *see* *Alaska Rates Database Waiver Order* at 3, para. 8; *see* *also* *Nationwide Rates Database Order* at 3, para. 6. [↑](#footnote-ref-66)
65. For a 10 Mbps connection, the rural rate for a dedicated data transmission service in the Extremely Rural tier in Alaska ($3,125) is lower than the rural rate for the Less Rural tier ($3,168). *See* USAC website, Rural Health Care Program Tools, Rates Database, <https://rhc.usac.org/ratesdb/#/ratesSearch> (last visited Feb. 18, 2022). [↑](#footnote-ref-67)
66. *See* 47 U.S.C. § 254(h)(1)(A). [↑](#footnote-ref-68)
67. *See Promoting Telehealth Report and Order*, 34 FCC Rcd at 7353, Fig 4 (showing land area for the Frontier and Extremely Rural tiers in Alaska, which are outside of a CBSA). [↑](#footnote-ref-69)
68. *See* Brigitte S. Waldorf, Continuous Multi-dimensional Measure of Rurality: Moving Beyond Threshold Measures (2006), available at <https://ageconsearch.umn.edu/record/21383>. “The IRR ranges between 0 (low level of rurality, i.e., urban) and 1 (most rural). Four steps are involved in its design: (1) identifying the dimensions of rurality: population size, density, remoteness, and built-up area; (2) selecting measurable variables to adequately represent each dimension: size (logarithm of population size), density (logarithm of population density), remoteness (network distance), built-up area or urban area (as defined by the US Census Bureau) as a percentage of total land area; (3) re-scaling the variables onto bounded scales that range from 0 to 1; and (4) selecting a link function: unweighted average of the four re-scaled variable.” The IRR for various areas is available online. *See* Brigitte S. Waldorf and Ayoung Kim, The Index of Relative Rurality (IRR): US County Data for 2000 and 2010 (2018), <https://purr.purdue.edu/publications/2960/1>. [↑](#footnote-ref-70)
69. Brigitte S. Waldorf and Ayoung Kim, The Index of Relative Rurality (IRR): US County Data for 2000 and 2010 (2018), <https://purr.purdue.edu/publications/2960/1>. [↑](#footnote-ref-71)
70. *See* *id*. [↑](#footnote-ref-72)
71. “Built-up” area refers to an urban area (as defined by the US Census Bureau) as a percentage of total land area. Brigitte S. Waldorf and Ayoung Kim, The Index of Relative Rurality (IRR): US County Data for 2000 and 2010 (2018), <https://purr.purdue.edu/publications/2960/1>. [↑](#footnote-ref-73)
72. In its original specification, the IRR was designed for counties, however, the index-approach to capture degrees of rurality can also be applied to groups of counties as well as to smaller scales such as townships or census tracts. Brigitte Waldorf and Ayoung Kim, Defining and Measuring Rurality in the US: from Typologies to Continuous Indices at 11 (2015), <https://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_168031.pdf>. [↑](#footnote-ref-74)
73. The IRR is responsive to the nature of rurality and is equipped to follow the trajectories of rurality over time as opposed to threshold-based typologies. *Id*. at 12. [↑](#footnote-ref-75)
74. For example, the using the Index in regression models, one can conveniently test not only whether there is a rurality effect, but also whether the effect is nonlinear. *Id*. at 12. [↑](#footnote-ref-76)
75. U.S. Department of Agriculture, Economic Research Service, Rural Urban Commuting Area Codes (August 17, 2020), <https://www.ers.usda.gov/data-products/rural-urban-commuting-area-codes.aspx> (last visited Feb. 18, 2022). [↑](#footnote-ref-77)
76. *See Rural Health Care Second Report and Order*,19 FCC Rcd at 24617-24, paras. 9, 23*.* [↑](#footnote-ref-78)
77. *See* Rural Health Information Hub, What are RUCA codes? (Feb. 8, 2018), <https://www.ruralhealthinfo.org/topics/what-is-rural#goldsmith-modification> (last visited Feb. 18, 2022). [↑](#footnote-ref-79)
78. *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7353, para. 34. [↑](#footnote-ref-80)
79. *Id.* at 7354, para. 36. [↑](#footnote-ref-81)
80. *Id.* [↑](#footnote-ref-82)
81. 47 CFR § 54.6201(b) (Table 1). *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7390, para. 116. [↑](#footnote-ref-83)
82. *See* 47 U.S.C. § 254(h)(1)(A). [↑](#footnote-ref-84)
83. *See Promoting Telehealth Report and Order*,34 FCC Rcdat 7343, para. 15; *2003 RHC Order*, 18 FCC Rcd at 24563, para. 33. [↑](#footnote-ref-85)
84. *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7343, para. 15. [↑](#footnote-ref-86)
85. *Id*. at 7344, para. 16. [↑](#footnote-ref-87)
86. *Id.* at 7344, para. 17. [↑](#footnote-ref-88)
87. *Id*. [↑](#footnote-ref-89)
88. *Id.* at 7345, para. 18. [↑](#footnote-ref-90)
89. Letter from Jennifer P. Bagg, Counsel to GCI Communication Corp, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-310, at 3 (filed Feb. 10, 2022) (GCI *Ex Parte*). [↑](#footnote-ref-91)
90. *See* Neal Weinberg and Johna Till Johnson, *What is MPLS: what you need to know about multi-protocol label switching* (Sept. 10, 2021), https://www.networkworld.com/article/2297171/network-security-mpls-explained.html. [↑](#footnote-ref-92)
91. *See* SD-WAN Experts, *Multiprotocol Label Switching – MPLS* (last visited Feb. 18, 2022) <https://www.sd-wan-experts.com/multiprotocol-label-switching-mpls>. [↑](#footnote-ref-93)
92. Metro Ethernet Forum Technical Specification MEF 6.1, p. 7 (April 2008), <https://mef.net/Assets/Technical_Specifications/PDF/MEF_6.1.pdf>. [↑](#footnote-ref-94)
93. *See* GCI *Ex Parte* at 2. [↑](#footnote-ref-95)
94. *See Promoting Telehealth Report and Order* 34 FCC Rcdat 7343, para. 15; *2003 RHC Order*, 18 FCC Rcd at 24563, para. 33. [↑](#footnote-ref-96)
95. *Promoting Telehealth Report and* Order, FCC Rcd at 7365, para. 61. [↑](#footnote-ref-97)
96. For example, rates for service in E-Rate typically include bundled services and NECA tariff rates are likely to be an upper bound on prices. [↑](#footnote-ref-98)
97. Indicator variable variables are used to control for effects that are uniform in expectation across a subgroup of the population under examination. Thus, if, for instance, NECA tariffs are systematically different from Telecom program rates, then with sufficient data an indicator variable for NECA tariffs can control for this systematic effect. [↑](#footnote-ref-99)
98. *See* GCI *Ex Parte* at 3-4; Letter from John Windhausen, Executive Director, Schools, Health, & Libraries Broadband Coalition, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 17-310 (filed Feb. 10, 2022) (SHLB *Ex Parte*). [↑](#footnote-ref-100)
99. *Nationwide Rates Database Waiver Order* at 1. *See* *also* *Alaska Rates Database Waiver* at 1, para. 2 (issuing a waiver of the Rates Database for determining rural rates for health care providers in the State of Alaska for funding year 2021 and funding year 2022). [↑](#footnote-ref-101)
100. *See* 47 U.S.C. § 254(h)(1)(A). [↑](#footnote-ref-102)
101. *Nationwide Rates Database Waiver Order* at 6, para. 13. [↑](#footnote-ref-103)
102. In limited instances, urban rates generated by the Rates Database exceeded rural rates for certain bandwidths in certain states. Section 254(h)(1)(A) of the Act contemplates situations where support may not be available because rural rates will not always exceed urban rates. 47 U.S.C. § 254(h)(1)(A) (“A telecommunications carrier . . . shall be entitled to have an amount equal to the difference, *if any*, between the rates for services provided to health care providers for rural areas in a State and the rates for similar services provided to other customers in comparable rural areas in that State . . . .”) (emphasis added). Should we consider instances where the Rates Database produces an urban rate in excess of the rural rate to be anomalies or an issue in need of resolution? Should a modified version of the Rates Database be required to generate rural rates that exceed the urban rate for every site? [↑](#footnote-ref-104)
103. *Database Guidance Letter*, 35 FCC Rcd 6708. There are two pending Applications for Review of the *Rates Database Guidance Letter*. *See* Application for Review of GCI Communication Corp., WC Docket No. 17-310 (filed July 30, 2020), <https://www.fcc.gov/ecfs/filing/107300879611053>; Alaska Communications Application for Review, WC Docket No. 17-310 (filed July 30, 2020), <https://www.fcc.gov/ecfs/filing/1073032203355>. [↑](#footnote-ref-105)
104. A regression model identifies a relationship between a set of factors or characteristics known as variables. *See* Peter Kennedy, *A Guide to Econometrics* (fifth edition), The MIT Press 2003, Chapters 1 – 3. [↑](#footnote-ref-106)
105. A variable is a characteristic that can have a range of possible values. In a regression model, the values taken by one variable (called the outcome or dependent variable) are explained in terms of one or more other variables (called the explanatory or independent variables). [↑](#footnote-ref-107)
106. *See* *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7365,7377 paras. 59-60, 89. [↑](#footnote-ref-108)
107. For example, the model could include a measure of competition, such as the number of bidders for a location or the number of providers who report providing service in a given area. The model could also include reported service type to ensure that estimated rates reflect the relevant service being purchased. [↑](#footnote-ref-109)
108. For example, the relative prices of different services may shift over time, requiring year and service type interaction effects, which may be increasingly difficult to model. [↑](#footnote-ref-110)
109. *See* 47 U.S.C. § 254(h)(1)(A). [↑](#footnote-ref-111)
110. More details of this approach are discussed in Appendix B. *See* I. Model Discussion, paragraphs six and seven. The example given is based on the same set of characteristics used in the current Rates Database. [↑](#footnote-ref-112)
111. As a simple example, consider a service provider that uses a formula, unknown to the Commission, for setting prices. One aspect of that formula might depend on bandwidth, such that a 100 Mbps service of a given type was always 1.5 times more expensive than a 50 Mbps service of the same type. Similarly, the formula might also take account of a range of other factors that varied from location to location. By controlling for the bulk of those other factors, with enough data across many states, the regression analysis would identify the bandwidth relationship. [↑](#footnote-ref-113)
112. 47 CFR § 54.505(a)-(b). [↑](#footnote-ref-114)
113. 47 USC § 254(h)(1)(A). [↑](#footnote-ref-115)
114. *See* 47 CFR § 54.605. [↑](#footnote-ref-116)
115. 47 USC § 254(h)(1)(A). [↑](#footnote-ref-117)
116. *Universal Service First Report and Order*, 12 FCC Rcd at 9001, para. 425. [↑](#footnote-ref-118)
117. Joint Board Report at 366, para. 549. [↑](#footnote-ref-119)
118. *Id*. at 369, para. 555. [↑](#footnote-ref-120)
119. *But see Promoting Telehealth Report and Order*, 34 FCC Rcd at 7366, n.179 (rejecting the use of per-megabit pricing using rates that are not actually charged to customers). [↑](#footnote-ref-121)
120. 47 U.S.C. § 254(h)(1)(A). [↑](#footnote-ref-122)
121. Schools, Health & Libraries Broadband (SHLB) Coalition Comments at 7 (Jan. 30, 2019); *see also* Letter from John T. Nakahata, Counsel to GCI Communication Corp. to Marlene H. Dortch, Secretary, FCC, WC Docket 17-310 at 2-3 (filed July 25, 2019)(proposing that health care providers pay a “minimum copayment” between 1 and 5 percent of the difference between the rural and urban rates). [↑](#footnote-ref-123)
122. SHLB Comments at 7. [↑](#footnote-ref-124)
123. *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7361, n.148. [↑](#footnote-ref-125)
124. *See generally* RHC Program Funding Year Overview, <https://www.usac.org/rural-health-care/additional-program-guidance/funding-year-overview/> (last visited Feb. 18, 2022). [↑](#footnote-ref-126)
125. *See* *Promoting Telehealth in Rural America*, WC Docket No. 17-310, Report and Order, 33 FCC Rcd 6574, 6578, para. 9 (2018) (*2018 Report and Order*). [↑](#footnote-ref-127)
126. *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7401, para. 139; *2018 Report and Order*, 33 FCC Rcd at 6583, para. 23. The GDP-CPI inflation index is used to adjust the $150 million funding cap on multi-year commitments and upfront payments in the Healthcare Connect Fund Program. To compute the annual inflation adjustment, the percentage increase in the GDP-CPI from the previous year will be used and rounded to the nearest 0.1 percent. The increase in the inflation index will then be used to calculate the maximum amount of funding for the next RHC Program funding year which runs from July 1 to June 30. In the event of periods of deflation, the cap on multi-year commitments and upfront payments for the prior funding year will be used to maintain predictability. *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7401, para. 139 n.419. [↑](#footnote-ref-128)
127. Each time when the internal cap was exceeded, the Commission prevented proration or prioritization reductions of the requests for upfront payments and multi-year commitments. Specifically, in funding year 2018, the Commission directed USAC to process the multi-year commitments and upfront payments requests as single-year funding requests by fully funding the upfront payments and the first year of the multi-year commitments, and designate the underlying contracts as “evergreen” as long as those contracts meet the “evergreen” contract requirements. *See* *Rural Health Care Support Mechanism*, WC Docket No. 02-60, 34 FCC Rcd 4136, 4138, paras. 1, 9 (2019) (*Funding Year 2018 Demand Order*). In funding year 2019, the Commission waived the $150 million internal cap and permitted USAC to carry-forward additional unused funds from prior funding years discovered after the second quarter of the calendar year to funding year 2019 to cover the demand that exceeded the internal cap. *See Rural Health Care Support Mechanism*, WC Docket No. 02-60, Order, 35 FCC Rcd 2659, 2662-63, para. 9 (2020). In funding year 2020, the Commission again waived the internal cap on multi-year commitments and upfront payments and used the unused funds carried forward from previous funding years to cover the overage. *See Rural Health Care Support Mechanism*, WC Docket No. 02-60, Order, 35 FCC Rcd 11696, 11699, para. 9 (WCB 2020). [↑](#footnote-ref-129)
128. *See infra* Appendix A. [↑](#footnote-ref-130)
129. 47 CFR § 54.619(a). [↑](#footnote-ref-131)
130. 47 CFR § 54.619(a)(5). [↑](#footnote-ref-132)
131. The last funding year in which there was an additional filing window was funding year 2016, and an additional filing window is not currently planned for future funding years. *See* *Wireline Competition Bureau Provides a Filing Window Period Schedule for Funding Requests Under the Telecommunications Program and the Healthcare Connect Fund*, WC Docket No. 02-60, Public Notice, 31 FCC Rcd 9588, 9591 (WCB 2016) (directing USAC to open a second filing window period for funding year 2016). [↑](#footnote-ref-133)
132. *See Promoting Telehealth Report and Order*, 34 FCC Rcd at 7401, para. 138 (“the $150 million cap did the job the Commission intended when it was established – to prevent multi-year and upfront payment requests from usurping the funding available for single-year requests for recurring services and safeguard against large fluctuations in demand for RHC Program funds.”); *HCF Order*, 27 FCC Rcd at 16802, para. 298. [↑](#footnote-ref-134)
133. *See* 47 CFR § 54.619(a)(5) (“The Wireline Competition Bureau, in consultation with the Office of the Managing Director, shall determine the proportion of unused funding for use in the Rural Health Care Program in accordance with the public interest to either satisfy demand notwithstanding the annual cap, reduce collections for the Rural Health Care Program, or to hold in reserve to address contingencies for subsequent funding years.”). [↑](#footnote-ref-135)
134. *See* 47 CFR § 54.621(b)(1). [↑](#footnote-ref-136)
135. *See infra* Appendix A. [↑](#footnote-ref-137)
136. *See HCF Order*, 27 FCC Rcd at 16713, para. 75 (stating that a purpose for adopting the internal cap is to avoid devoting an excessive amount of support for self-construction). [↑](#footnote-ref-138)
137. *See* SHLB *Ex Parte* at 1-2. [↑](#footnote-ref-139)
138. 47 CFR § 54.622(i)(3)(ii). In funding year 2018, when the Commission directed USAC to fully fund only the upfront payments and the first year of the multi-year commitments, it also directed USAC to designate the eligible underlying contracts as “evergreen.” *See Funding Year 2018 Demand Order*, 34 FCC Rcd at 4138, para. 9. [↑](#footnote-ref-140)
139. 47 CFR § 54.622(i)(3). [↑](#footnote-ref-141)
140. *See* 47 CFR § 54.621(b) (“If the total demand during the filing window period exceeds the total remaining support available for the funding year, then the Administrator shall distribute the available funds consistent with the following priority schedule…”); *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7395, para. 124. [↑](#footnote-ref-142)
141. *See* SHLB *Ex Parte* at 1. [↑](#footnote-ref-143)
142. The rule required all invoices under the RHC Program to be submitted to the Administrator within 120 days after the later of: (1) the service delivery deadline; or (2) the date of a revised funding commitment letter issued pursuant to an approved post-commitment request made by the applicant or service provider or a successful appeal of a previously denied or reduced funding request. *See* 47 CFR § 54.627(a); *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7422-23, paras. 188-90. [↑](#footnote-ref-144)
143. 47 CFR 54 § 627(b); *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7423-24, paras. 190-91. [↑](#footnote-ref-145)
144. 47 CFR § 54.627(c) and (d); *Promoting Telehealth Report and Order*, 34 FCC Rcd at 7424-25, paras. 192-93. [↑](#footnote-ref-146)
145. 47 CFR § 54.627(c)(1). [↑](#footnote-ref-147)
146. USAC, *Step 6: Invoice USAC*, <https://www.usac.org/rural-health-care/telecommunications-program/step-6-invoice-usac/> (last visited Feb. 18, 2022) (USAC Invoice Webpage). [↑](#footnote-ref-148)
147. 47 CFR 54.627(c)(2). [↑](#footnote-ref-149)
148. *See* USAC Invoice Webpage. [↑](#footnote-ref-150)
149. *Id.* [↑](#footnote-ref-151)
150. *Id.* [↑](#footnote-ref-152)
151. Service providers may only select the month for which the invoice is submitted and cannot input an amount different than the amount determined by the HSS. *See* USAC, *Step 6: Invoice USAC,* <https://www.usac.org/rural-health-care/telecommunications-program/step-6-invoice-usac/> (last visited Feb. 18, 2022). [↑](#footnote-ref-153)
152. *See TeleQuality Communications, LLC*, EB-IHD-19-00028870, Order and Consent Decree, 35 FCC Rcd 503, 515 (EB 2020) (*TeleQuality Consent Decree*) (describing invoicing violations in which TeleQuality Communications, LLC invoiced USAC for services that were disconnected before the end of the funding period or were not actually installed and provided). [↑](#footnote-ref-154)
153. *Id.* at 515. [↑](#footnote-ref-155)
154. *See* USAC, Step 6: Invoice USAC, <https://www.usac.org/rural-health-care/healthcare-connect-fund-program/step-6-invoice-usac/> (last visited Feb. 18, 2022). [↑](#footnote-ref-156)
155. *Id*. [↑](#footnote-ref-157)
156. *Id.* [↑](#footnote-ref-158)
157. *Id.* [↑](#footnote-ref-159)
158. *Id.* [↑](#footnote-ref-160)
159. *Id.* [↑](#footnote-ref-161)
160. In the event the Commission adopts this rule change, the FCC Form 463 would be revised to reflect the certifications required in the Telecom Program. [↑](#footnote-ref-162)
161. *See, e.g.*, *TeleQuality Consent Decree*, 35 FCC Rcd at 515. [↑](#footnote-ref-163)
162. *See Promoting Telehealth Report and Order*, 34 FCC Rcd at 7431-32, paras. 209-10. [↑](#footnote-ref-164)
163. *See* USAC, My Portal Platform Update, <https://www.usac.org/rural-health-care/healthcare-connect-fund-program/step-4-submit-funding-requests/my-portal-platform-update/> (last visited Feb. 18, 2022); USAC, November 2021 RHC Program Monthly Newsletter, <https://view.outreach.usac.org/?qs=11d1062c48143ac50ade39e3b0b818a48bb95bf3c32ef151cad22b4d8b8baf48cc1c030fabaf751a2ef7b425217acee5aaffdc1dedc3839896384344465b2bf9e120f0f9cd79d4e2> (Nov. 5, 2021). [↑](#footnote-ref-165)
164. *See* SHLB *Ex Parte*. [↑](#footnote-ref-166)
165. Section 1 of the Communications Act of 1934 as amended provides that the FCC “regulat[es] interstate and foreign commerce in communication by wire and radio so as to make [such service] available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex.” 47 U.S.C. § 151. [↑](#footnote-ref-167)
166. The term “equity” is used here consistent with Executive Order 13985 as the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality. *See* Exec. Order No. 13985, 86 Fed. Reg. 7009, Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (January 20, 2021). [↑](#footnote-ref-168)
167. The RFA, *see* 5 U.S.C. §§ 601-612, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996). [↑](#footnote-ref-169)
168. 5 U.S.C. § 605(b). [↑](#footnote-ref-170)
169. 47 CFR § 1.1200 *et seq.* [↑](#footnote-ref-171)
170. Peter Kennedy, *A Guide to Econometrics* (fifth edition), The MIT Press 2003, Chapters 1 – 3; Joshua D. Angrist and Jӧrn-Steffen Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion*, Princeton University Press 2009, Chapter 3. [↑](#footnote-ref-172)
171. The number of indicators is one less than the total number of states and territories (56) because the model sets one state as the base level. [↑](#footnote-ref-173)
172. 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601–612, 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). [↑](#footnote-ref-174)
173. *See* 5 U.S.C. § 603(a). [↑](#footnote-ref-175)
174. *See id.* [↑](#footnote-ref-176)
175. 5 U.S.C. § 603(b)(3). [↑](#footnote-ref-177)
176. 5 U.S.C. § 601(6). [↑](#footnote-ref-178)
177. 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to the RFA, 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.” 5 U.S.C. § 601(3). [↑](#footnote-ref-179)
178. *See* 15 U.S.C. § 632. [↑](#footnote-ref-180)
179. *See* 5 U.S.C. § 601(3)-(6). [↑](#footnote-ref-181)
180. *See* U.S. Small Business Administration, Office of Advocacy, *What’s New With Small Business?* (Oct. 2020), <https://cdn.advocacy.sba.gov/wp-content/uploads/2020/10/22094424/Whats-New-With-Small-Business-2020.pdf>. [↑](#footnote-ref-182)
181. *Id*. [↑](#footnote-ref-183)
182. 5 U.S.C. § 601(4). [↑](#footnote-ref-184)
183. The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number small organizations in this small entity description. S*ee* IRS, *Annual Electronic Filing Requirement for Small Exempt Organizations — Form 990-N (e-Postcard), Who May File Form 990-N to Satisfy Their Annual Reporting Requirement*, <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard> (last visited Feb. 18, 2022). We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field. [↑](#footnote-ref-185)
184. *See* Exempt Organizations Business Master File Extract (EO BMF), “CSV Files by Region,” <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf>. The IRS Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for Region 1-Northeast Area (76,886), Region 2-Mid-Atlantic and Great Lakes Areas (221,121), and Region 3-Gulf Coast and Pacific Coast Areas (273,702) which includes the continental U.S., Alaska, and Hawaii. This data does not include information for Puerto Rico. [↑](#footnote-ref-186)
185. 5 U.S.C. § 601(5). [↑](#footnote-ref-187)
186. *See* 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7.” *See also* Census of Governments, <https://www.census.gov/programs-surveys/cog/about.html>. [↑](#footnote-ref-188)
187. *See* U.S. Census Bureau, 2017 Census of Governments – Organization Table 2. Local Governments by Type and State: 2017 [CG1700ORG02], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). *See also* Table 2.CG1700ORG02 Table Notes\_Local Governments by Type and State\_2017. [↑](#footnote-ref-189)
188. *See id.* at Table 5. County Governments by Population-Size Group and State: 2017 [CG1700ORG05], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 2,105 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments. [↑](#footnote-ref-190)
189. *See* *id.* at Table 6. Subcounty General-Purpose Governments by Population-Size Group and State: 2017 [CG1700ORG06], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 18,729 municipal and 16,097 town and township governments with populations less than 50,000. [↑](#footnote-ref-191)
190. *See* *id.* at Table 10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2017 [CG1700ORG10], <https://www.census.gov/data/tables/2017/econ/gus/2017-governments.html>. There were 12,040 independent school districts with enrollment populations less than 50,000. *See also* Table 4. Special-Purpose Local Governments by State Census Years 1942 to 2017 [CG1700ORG04], CG1700ORG04 Table Notes\_Special Purpose Local Governments by State\_Census Years 1942 to 2017. [↑](#footnote-ref-192)
191. This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,931) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (12,040), from the 2017 Census of Governments - Organizations Tables 5, 6, and 10. While the special purpose governments category also includes local special district governments, the 2017 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category. [↑](#footnote-ref-193)
192. *Id.* [↑](#footnote-ref-194)
193. 47 CFR §§ 54.601, 54.621. [↑](#footnote-ref-195)
194. *See* U.S. Census Bureau, *2017 NAICS Definition, “621111 Offices of Physicians (except Mental Health Specialists)”* <https://www.census.gov/naics/?input=621111&year=2017&details=621111>. [↑](#footnote-ref-196)
195. *See* 13 CFR § 121.201, NAICS Code 621111. [↑](#footnote-ref-197)
196. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1262SSSZ4, *Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621111, <https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621111&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false>. [↑](#footnote-ref-198)
197. *Id*. The available U.S. Census data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of $12 million or less. [↑](#footnote-ref-199)
198. *See* U.S. Census Bureau, *2017 NAICS Definition, “621210 Offices of Dentists”*, [https://www.census.gov/naics/?input=621210&year=2017&details=621210.](https://www.census.gov/naics/?input=621210&year=2017&details=621210) [↑](#footnote-ref-200)
199. *See* 13 CFR § 121.201, NAICS Code 621210. [↑](#footnote-ref-201)
200. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1262SSSZ4, *Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621210, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621210&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621210&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-202)
201. *Id*. The available U.S. Census data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of $8 million or less. [↑](#footnote-ref-203)
202. *See* U.S. Census Bureau, 2017 NAICS Definition, “621310 “Offices of Chiropractors”, [https://www.census.gov/naics/?input=621310&year=2017&details=621310.](https://www.census.gov/naics/?input=621310&year=2017&details=621310)  [↑](#footnote-ref-204)
203. *See* 13 CFR § 121.201, NAICS Code 621310. [↑](#footnote-ref-205)
204. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1262SSSZ4, *Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S*: *2012*, NAICS Code 621310, <https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621310&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012>. [↑](#footnote-ref-206)
205. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-207)
206. *See* U.S. Census Bureau, *2017 NAICS Definition “621320 Offices of Optometrists”,* [https://www.census.gov/naics/?input=621320&year=2017&details=621320.](https://www.census.gov/naics/?input=621320&year=2017&details=621320) [↑](#footnote-ref-208)
207. *See* 13 CFR § 121.201, NAICS Code 621320. [↑](#footnote-ref-209)
208. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the* *U.S.: 2012*, NAICS Code 621320, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621320&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621320&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-210)
209. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-211)
210. *See* U.S. Census Bureau, *2017 NAICS Definition, “621330 Offices of Mental Health Practitioners (except Physicians)”*, [https://www.census.gov/naics/?input=621330&year=2017&details=621330.](https://www.census.gov/naics/?input=621330&year=2017&details=621330)  [↑](#footnote-ref-212)
211. *See* 13 CFR § 121.201, NAICS Code 621330. [↑](#footnote-ref-213)
212. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621330, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-214)
213. *Id.* The available U.S. Census data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-215)
214. *See* U.S. Census Bureau, *2017 NAICS Definition, “621340 Offices of Physical, Occupational and Speech Therapists and Audiologists”,* [https://www.census.gov/naics/?input=621340&year=2017&details=621340.](https://www.census.gov/naics/?input=621340&year=2017&details=621340) [↑](#footnote-ref-216)
215. *See* 13 CFR § 121.201, NAICS Code 621340. [↑](#footnote-ref-217)
216. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.*: *2012*, NAICS Code 621340, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-218)
217. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of $8 million or less. [↑](#footnote-ref-219)
218. *See* U.S. Census Bureau, *2017 NAICS Definition, “621391 Offices of Podiatrists”*, [https://www.census.gov/naics/?input=621391&year=2017&details=621391.](https://www.census.gov/naics/?input=621391&year=2017&details=621391)  [↑](#footnote-ref-220)
219. *See* 13 CFR § 121.201, NAICS Code 621391. [↑](#footnote-ref-221)
220. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1262SSSZ4, *Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621391, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621391&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621391&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012) [↑](#footnote-ref-222)
221. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of $8 million or less. [↑](#footnote-ref-223)
222. *See* U.S. Census Bureau, *2017 NAICS Definition, “621399 Offices of All Other Miscellaneous Health Practitioners”*, [https://www.census.gov/naics/?input=621399&year=2017&details=621399.](https://www.census.gov/naics/?input=621399&year=2017&details=621399)  [↑](#footnote-ref-224)
223. *See* 13 CFR § 121.201, NAICS Code 621399. [↑](#footnote-ref-225)
224. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4, *Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621399, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621399&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621399&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-226)
225. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-227)
226. *See* U.S. Census Bureau, *2017 NAICS Definition, “621410 Family Planning Centers”,* <https://www.census.gov/naics/?input=621410&year=2017&details=621410>. [↑](#footnote-ref-228)
227. *See* 13 CFR § 121.201, NAICS Code 621410. [↑](#footnote-ref-229)
228. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621410, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621410&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621410&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-230)
229. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of $12 million or less. [↑](#footnote-ref-231)
230. *See* U.S. Census Bureau, *2017 NAICS Definition, “621420 Outpatient Mental Health and Substance Abuse Centers”*, [https://www.census.gov/naics/?input=621420&year=2017&details=621420.](https://www.census.gov/naics/?input=621420&year=2017&details=621420) [↑](#footnote-ref-232)
231. *See* 13 CFR § 121.201, NAICS Code 621420. [↑](#footnote-ref-233)
232. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.*: *2012,* NAICS Code 621420, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621420&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621420&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-234)
233. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-235)
234. *See* U.S. Census Bureau, *2017 NAICS Definition, “621491 HMO Medical Centers”,* <https://www.census.gov/naics/?input=621491&year=2017&details=621491>. [↑](#footnote-ref-236)
235. *See* 13 CFR § 121.201, NAICS Code 621491. [↑](#footnote-ref-237)
236. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621491, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621491&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621491&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-238)
237. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-239)
238. *See* U.S. Census Bureau, *2017 NAICS Definition, “621493 Freestanding Ambulatory Surgical and Emergency Centers”*, <https://www.census.gov/naics/?input=621493&year=2017&details=621493>. [↑](#footnote-ref-240)
239. *See* 13 CFR § 121.201, NAICS Code 621493. [↑](#footnote-ref-241)
240. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621493, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621493&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621493&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-242)
241. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-243)
242. *See* U.S. Census Bureau, *2017 NAICS Definition, “621498 All Other Outpatient Care Centers”,* <https://www.census.gov/naics/?input=621498&year=2017&details=621498>. [↑](#footnote-ref-244)
243. *See* 13 CFR § 121.201, NAICS Code 621498. [↑](#footnote-ref-245)
244. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for* the U.S.: 2012, NAICS Code 621498, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621498&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621498&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-246)
245. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-247)
246. *See* U.S. Census Bureau, *2017 NAICS Definition*, *“621991 Blood and Organ Banks”,* <https://www.census.gov/naics/?input=621991&year=2017&details=621991>. [↑](#footnote-ref-248)
247. *See* 13 CFR § 121.201, NAICS Code 621991. [↑](#footnote-ref-249)
248. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 621991, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621991&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621991&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-250)
249. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-251)
250. *See* U.S. Census Bureau, *2017 NAICS Definition, “621999 All Other Miscellaneous Ambulatory Health Care Services”,* <https://www.census.gov/naics/?input=621999&year=2017&details=621999>. [↑](#footnote-ref-252)
251. *See* 13 CFR § 121.201, NAICS Code 621999. [↑](#footnote-ref-253)
252. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.:* *2012*, NAICS Code 621999, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621999&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621999&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-254)
253. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-255)
254. *See* U.S. Census Bureau, *2017 NAICS Definition, “621511 Medical Laboratories”,* <https://www.census.gov/naics/?input=621511&year=2017&details=621511>. [↑](#footnote-ref-256)
255. *See* 13 CFR § 121.201, NAICS Code 621511. [↑](#footnote-ref-257)
256. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.*: *2012*, NAICS Code 621511, https://www.census.gov/naics/?input=621511&year=2017&details=621511. [↑](#footnote-ref-258)
257. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-259)
258. *See* U.S. Census Bureau*, 2017 NAICS Definition, “621512 Diagnostic Imaging Centers”,* <https://www.census.gov/naics/?input=621512&year=2017&details=621512>. [↑](#footnote-ref-260)
259. *See* 13 CFR § 121.201, NAICS Code 621512. [↑](#footnote-ref-261)
260. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for* the U.S.: 2012, NAICS Code 621512, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621512&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621512&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-262)
261. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-263)
262. *See* U.S. Census Bureau, *2017 NAICS Definition, “621610 Home Health Care Services”,* <https://www.census.gov/naics/?input=621610&year=2017&details=621610.> [↑](#footnote-ref-264)
263. *See* 13 CFR § 121.201, NAICS Code 621610. [↑](#footnote-ref-265)
264. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S: 2012,* NAICS Code 621610, <https://www.census.gov/naics/?input=621991&year=2017&details=6214991>. [↑](#footnote-ref-266)
265. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-267)
266. *See* U.S. Census Bureau, *2017 NAICS Definition, “621910 Ambulance Services”,* <https://www.census.gov/naics/?input=621910&year=2017&details=621910>. [↑](#footnote-ref-268)
267. *See* 13 CFR § 121.201, NAICS Code 621910. [↑](#footnote-ref-269)
268. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of* Firms for the U.S.: 2012, NAICS Code 621910, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621910&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621910&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-270)
269. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-271)
270. *See* U.S. Census Bureau, *2017 NAICS Definition, “621492 Kidney Dialysis Centers”*, <https://www.census.gov/naics/?input=621492&year=2017&details=621492>. [↑](#footnote-ref-272)
271. *See* 13 CFR § 121.201, NAICS Code 621492. [↑](#footnote-ref-273)
272. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.*: *2012*, NAICS Code 621492, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621492&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=621492&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012)  [↑](#footnote-ref-274)
273. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-275)
274. *See* U.S. Census Bureau, *2017 NAICS Definition, “622110 General Medical and Surgical Hospitals”,* <https://www.census.gov/naics/?input=622110&year=2017&details=622110>. [↑](#footnote-ref-276)
275. *See* 13 CFR § 121.201, NAICS Code 622110. [↑](#footnote-ref-277)
276. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S*.*: 2012*, NAICS Code 622110, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=622110&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=622110&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012) [↑](#footnote-ref-278)
277. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard of annual receipts of $41.5 million or less. [↑](#footnote-ref-279)
278. *See* U.S. Census Bureau, *2017 NAICS Definition, “622210 Psychiatric and Substance Abuse Hospitals”*, <https://www.census.gov/naics/?input=622210&year=2017&details=622210>. [↑](#footnote-ref-280)
279. *See* 13 CFR § 121.201, NAICS Code 622210. [↑](#footnote-ref-281)
280. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.*: *2012*, NAICS Code 622210, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=622210&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=622210&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-282)
281. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-283)
282. *See* U.S. Census Bureau*, 2017 NAICS Definition, “622310 Specialty (Except Psychiatric and Substance Abuse) Hospitals”*, <https://www.census.gov/naics/?input=622310&year=2017&details=622310>. [↑](#footnote-ref-284)
283. *See* 13 CFR § 121.201 NAICS Code 622310. [↑](#footnote-ref-285)
284. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 622310, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=622310&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=622310&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false&vintage=2012)  [↑](#footnote-ref-286)
285. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-287)
286. *See* U.S. Census Bureau, *2017 NAICS Definition, “624230 Emergency and Other Relief Services”,* <https://www.census.gov/naics/?input=624230&year=2017&details=624230>. [↑](#footnote-ref-288)
287. *See* 13 CFR § 121.201, NAICS Code 624230. [↑](#footnote-ref-289)
288. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1262SSSZ4*, Healthcare and Social Assistance: Subject Series - Estab and Firm Size: Receipts/Revenue Size of Firms for the U.S.: 2012*, NAICS Code 624230, [https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=624230&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1262SSSZ4&n=624230&tid=ECNSIZE2012.EC1262SSSZ4&hidePreview=false) [↑](#footnote-ref-290)
289. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-291)
290. *See* U.S. Census Bureau, *2017 NAICS Definition, “517311 Wired Telecommunications Carriers”*, [https://www.census.gov/naics/?input=517311&year=2017&details=517311.](https://www.census.gov/naics/?input=517311&year=2017&details=517311) [↑](#footnote-ref-292)
291. *See* 13 CFR § 121.201, NAICS Code 517311 (previously 517110). [↑](#footnote-ref-293)
292. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012,* NAICS Code 517110, [https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false) [↑](#footnote-ref-294)
293. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-295)
294. *See Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*) [https://apps.fcc.gov/edocs\_public/attachmatch/DOC-301823A1.pdf.](https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf) [↑](#footnote-ref-296)
295. *Id*. [↑](#footnote-ref-297)
296. *See* U.S. Census Bureau, *2017 NAICS Definition, “517311 Wired Telecommunications Carriers”,* [https://www.census.gov/naics/?input=517311&year=2017&details=517311.](https://www.census.gov/naics/?input=517311&year=2017&details=517311)  [↑](#footnote-ref-298)
297. *See* 13 CFR § 121.201, NAICS Code 517311 (previously 517110). [↑](#footnote-ref-299)
298. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S.: 2012,* NAICS Code 517110, [https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false) [↑](#footnote-ref-300)
299. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-301)
300. *See Trends in Telephone Service*, Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division at Table 5.3 (Sept. 2010) (*Trends in Telephone Service*). [https://apps.fcc.gov/edocs\_public/attachmatch/DOC-301823A1.pdf.](https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf) [↑](#footnote-ref-302)
301. *Id*. [↑](#footnote-ref-303)
302. *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>. [↑](#footnote-ref-304)
303. *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>. [↑](#footnote-ref-305)
304. *Id*. [↑](#footnote-ref-306)
305. *See* Federal Communications Commission, Wireline Competition Bureau, Industry Analysis and Technology Division, Trends in Telephone Service at Table 5.3, page 5.5 (Sept. 2010) (*Trends in Telephone Service*), https://apps.fcc.gov/edocs\_public/attachmatch/DOC-301823A1.pdf. [↑](#footnote-ref-307)
306. *Id.* [↑](#footnote-ref-308)
307. *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/naics/?input=517911&year=2017&details=517911>. [↑](#footnote-ref-309)
308. *See* 13 CFR § 120.201, NAICS Code 517311. [↑](#footnote-ref-310)
309. *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://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false) [↑](#footnote-ref-311)
310. *Id.* [↑](#footnote-ref-312)
311. *See* U.S. Census Bureau, *2017 NAICS Definition,* *“**517312 Wireless Telecommunications Carriers* *(except Satellite)”,* [https://www.census.gov/naics/?input=517312&year=2017&details=517312.](https://www.census.gov/naics/?input=517312&year=2017&details=517312) [↑](#footnote-ref-313)
312. *See* 13 CFR § 121.201, NAICS Code 517312 (previously 517210). [↑](#footnote-ref-314)
313. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, [https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012) [↑](#footnote-ref-315)
314. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-316)
315. *See* Federal Communications Commission, *Universal Licensing System*, http://wireless.fcc.gov/uls.  For the purposes of this FRFA, consistent with Commission practice for wireless services, the Commission estimates the number of licensees based on the number of unique FCC Registration Numbers. [↑](#footnote-ref-317)
316. *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.](https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf) [↑](#footnote-ref-318)
317. *See id*. [↑](#footnote-ref-319)
318. *See* U.S. Census Bureau, *2017 NAICS Definition, “517312 Wireless Telecommunications Carriers (except Satellite)*”, [https://www.census.gov/naics/?input=517312&year=2017&details=517312.](https://www.census.gov/naics/?input=517312&year=2017&details=517312)  [↑](#footnote-ref-320)
319. *See* 13 CFR § 121.201, NAICS Code 517312 (previously 517210). [↑](#footnote-ref-321)
320. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ5, *Information: Subject Series: Estab and Firm Size: Employment Size of Firms for the U.S.: 2012*, NAICS Code 517210, [https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517210&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false&vintage=2012) [↑](#footnote-ref-322)
321. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-323)
322. *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.](https://apps.fcc.gov/edocs_public/attachmatch/DOC-301823A1.pdf) [↑](#footnote-ref-324)
323. *Id*. [↑](#footnote-ref-325)
324. *See* U.S. Census Bureau, *2017 NAICS Definition, “517410 Satellite Telecommunications”,* [https://www.census.gov/naics/?input=517410&year=2017&details=517410.](https://www.census.gov/naics/?input=517410&year=2017&details=517410)  [↑](#footnote-ref-326)
325. *See* 13 CFR § 121.201, NAICS Code 517410. [↑](#footnote-ref-327)
326. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ4, *Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012*, NAICS Code 517410, [https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517410&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517410&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false&vintage=2012)  [↑](#footnote-ref-328)
327. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-329)
328. *See* U.S. Census Bureau, *2017 NAICS Definition*, “*517919 All Other Telecommunications*”, <https://www.census.gov/naics/?input=517919&year=2017&details=517919>. [↑](#footnote-ref-330)
329. *Id.* [↑](#footnote-ref-331)
330. *Id*. [↑](#footnote-ref-332)
331. *See* 13 CFR § 121.201, NAICS Code 517919. [↑](#footnote-ref-333)
332. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ4, *Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012*, NAICS Code 517919, [https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517919&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517919&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false) [↑](#footnote-ref-334)
333. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-335)
334. *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>. [↑](#footnote-ref-336)
335. *Id.* [↑](#footnote-ref-337)
336. *See* 13 CFR § 121.201, NAICS Code 517311 (previously 517110). [↑](#footnote-ref-338)
337. *See* U.S. Census Bureau, *2012 Economic Census of the United States,* Table ID: EC1251SSSZ5, *Information: Subject Series - Estab & Firm Size: Employment Size of Firms for the U.S*.: *2012*, NAICS Code 517110, [https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1251SSSZ5&n=517110&tid=ECNSIZE2012.EC1251SSSZ5&hidePreview=false) [↑](#footnote-ref-339)
338. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-340)
339. *See* U.S. Census Bureau, *2017 NAICS Definition, “517919 All Other Telecommunications”,* <https://www.census.gov/naics/?input=517919&year=2017&details=517919>. [↑](#footnote-ref-341)
340. *See* 13 CFR § 121.201, NAICS Code 517919. [↑](#footnote-ref-342)
341. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1251SSSZ4, *Information: Subject Series - Estab and Firm Size: Receipts Size of Firms for the U.S.: 2012*, NAICS Code 517919, [https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517919&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1251SSSZ4&n=517919&tid=ECNSIZE2012.EC1251SSSZ4&hidePreview=false) [↑](#footnote-ref-343)
342. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-344)
343. *See* 13 CFR § 121.201, NAICS Code 334220; *see also* U.S. Census Bureau, *2017 NAICS Definition, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing”,* <https://www.census.gov/naics/?input=334220&year=2017&details=334220>. [↑](#footnote-ref-345)
344. *See* 13 CFR § 121.201, NAICS Code 334290; *see also* U.S. Census Bureau, *2017 NAICS Definition, “334290 Other Communications Equipment Manufacturing”*, <https://www.census.gov/naics/?input=334290&year=2017&details=334290>. [↑](#footnote-ref-346)
345. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1231SG2, *Manufacturing: Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012*, NAICS Code 334220, [https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1231SG2&y=2012&n=334220&vintage=2012&hidePreview=false.](https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1231SG2&y=2012&n=334220&vintage=2012&hidePreview=false) [↑](#footnote-ref-347)
346. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of establishments that meet the SBA size standard of employment of 1,250 or fewer employees. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies.” An establishment is a single physical location at which business is conducted and/or services are provided. It is not necessarily identical with a single firm, company or enterprise, which may consist of one or more establishments. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the number of small businesses. U.S. Census Bureau data does not provide information on the number of firms for this industry. [↑](#footnote-ref-348)
347. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1231SG2, *Manufacturing: Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012*, NAICS Code 334290, [https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1231SG2&y=2012&n=334290&vintage=2012&hidePreview=false.](https://data.census.gov/cedsci/table?tid=ECNSIZE2012.EC1231SG2&y=2012&n=334290&vintage=2012&hidePreview=false)  [↑](#footnote-ref-349)
348. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of establishments that meet the SBA size standard of employment of 750 or fewer employees. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies.” An establishment is a single physical location at which business is conducted and/or services are provided. It is not necessarily identical with a single firm, company or enterprise, which may consist of one or more establishments. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the number of small businesses. U.S. Census Bureau data does not provide information on the number of firms for this industry. [↑](#footnote-ref-350)
349. *See* U.S. Census Bureau, *2017 NAICS Definition, “334210 Telephone Apparatus Manufacturing,”* <https://www.census.gov/naics/?input=334210&year=2017&details=334210>. [↑](#footnote-ref-351)
350. *Id.* [↑](#footnote-ref-352)
351. *See* 13 CFR § 121.201, NAICS Code 334210. [↑](#footnote-ref-353)
352. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1231SG2, *Manufacturing: Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012,* NAICS Code 334210, [https://data.census.gov/cedsci/table?n=334210&tid=ECNSIZE2012.EC1231SG2&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?n=334210&tid=ECNSIZE2012.EC1231SG2&hidePreview=false&vintage=2012)  The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies.” An establishment is a single physical location at which business is conducted and/or services are provided. It is not necessarily identical with a single firm, company or enterprise, which may consist of one or more establishments. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the number of small businesses. U.S. Census Bureau data does not provide information on the number of firms for this industry. [↑](#footnote-ref-354)
353. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of establishments that meet the SBA size standard of employment of 1,250 or fewer employees. [↑](#footnote-ref-355)
354. *See* U.S. Census Bureau, *2017 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing*”, <https://www.census.gov/naics/?input=334220&year=2017&details=334220>. [↑](#footnote-ref-356)
355. *Id*. [↑](#footnote-ref-357)
356. *See* 13 CFR § 121.201, NAICS Code 334220. [↑](#footnote-ref-358)
357. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1231SG2, *Manufacturing: Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size: 2012*, NAICS Code 334220, [https://data.census.gov/cedsci/table?text=EC1231SG2&n=334220&tid=ECNSIZE2012.EC1231SG2&hidePreview=false.](https://data.census.gov/cedsci/table?text=EC1231SG2&n=334220&tid=ECNSIZE2012.EC1231SG2&hidePreview=false) [↑](#footnote-ref-359)
358. *Id*. The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard. [↑](#footnote-ref-360)
359. *See* U.S. Census Bureau, *2017 NAICS Definition, “334290 Other Communications Equipment Manufacturing*”, <https://www.census.gov/naics/?input=334290&year=2017&details=334290.> [↑](#footnote-ref-361)
360. *Id.* [↑](#footnote-ref-362)
361. *See* 13 CFR 121.201, NAICS Code 334290. [↑](#footnote-ref-363)
362. *See* U.S. Census Bureau, *2012 Economic Census of the United States*, Table ID: EC1231SG2, *Manufacturing: Summary Series: General Summary: Industry Statistics for Subsectors and Industries by Employment Size*: *2012*, NAICS Code 334290, [https://data.census.gov/cedsci/table?text=EC1231SG2&n=334290&tid=ECNSIZE2012.EC1231SG2&hidePreview=false&vintage=2012.](https://data.census.gov/cedsci/table?text=EC1231SG2&n=334290&tid=ECNSIZE2012.EC1231SG2&hidePreview=false&vintage=2012) [↑](#footnote-ref-364)
363. *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard*.* [↑](#footnote-ref-365)