

Overview

Updated, Fall 2017

- The Communications Act of 1934, as amended, established the Universal Service Fund (USF) to ensure that consumers in rural, insular and high-cost areas have access to communications services that are comparable to those available in urban areas at comparable prices.
- The USF has been hugely successful in delivering voice services and high-speed broadband Internet access to consumers in rural areas of our nation where the necessary infrastructure would not otherwise be economically viable.
- The enabling and transformative powers of the Internet offer the promise of economic growth, highquality and high-paying jobs, and an improved quality of life for rural Americans.
- There is a problem, however, because the universal service funding mechanism that makes rural broadband infrastructure investments possible today is paid for primarily from assessments on dying voice-based services.
 - As of the fourth quarter of 2017, the USF is funded by a 18.8% assessment on interstate and international end-user telecommunications service revenues. This is not sustainable!
 - Unless a replacement funding mechanism based on the market realities of a broadband world is developed soon, the promise that broadband holds for rural America will be wasted, and worse, rural areas could see a serious out-migration of businesses and jobs and a decline in quality of life.
 - In addition to supporting rural communications infrastructure, the USF also supports the provision of advanced information and telecommunications services, including broadband, to low-income consumers, schools and libraries, and rural health care providers. Unless the USF contribution mechanism is reformed promptly, these beneficiaries will also suffer serious economic harm.
- The nation's history with major infrastructure initiatives demonstrates that we have the vision and ability to design, build, and pay for the facilities and tools necessary to open new markets and drive economic growth and job creation.
- Programs that fund infrastructure investment through equitable assessments on those that will directly benefit from that infrastructure are not so much a "tax," as they are a "user fee."
- Unlike taxes that become unrestricted federal spending, a properly structured infrastructure funding program for a dedicated purpose, with a fair and equitable system of user fees, will lead to increased economic growth, job creation, and consumer benefits.
- A new USF funding mechanism is needed that equitably spreads the cost of needed broadband infrastructure across all service providers that stand to benefit from such investment and allows universal service funding to be sustainable for the long run.
- On December 19, 2014, the FCC ordered the cap on the Schools and Libraries Program be increased from \$2.4B to \$3.9B. The FCC has also modified the federal Lifeline program that could increase the expenditures of that program. Absent fundamental reform, further upward pressure will be placed on the USF contribution factor.



Infrastructure development has been critical to the nation's success

Infrastructure has played a key role in making the United States the exceptional nation that it is. In the 1820s, the Erie Canal connected the East Coast with the Great Lakes and the Upper Mid-West and helped lead to the western expansion of this country. This opened a path for the migration of agriculture and industry into the interior of our country creating jobs, opportunity, and growth for our expanding population. In the 1860s, the transcontinental railroad was built connecting the East and West Coasts and spurring economic development throughout the vast expanse of our land.

In the 1930s, the Rural Electrification Act enabled the delivery of electricity throughout rural America, allowing farmers to become more productive and allowing for the development of new businesses and industries in rural communities. Likewise, the Communications Act of 1934 put policies in place for the universal delivery of telecommunications services to areas of the nation where it would not otherwise have been economically viable to do so. In the 1950s, the Interstate Highway System was established, which began by connecting many disconnected roadways and culminated in the construction of a national network of superhighways that put America on wheels and fueled job creation in transportation, manufacturing, travel, and countless other industries.

"Broadband is *the* great infrastructure challenge of the early 21st Century."¹ The Federal Communications Commission (FCC) highlighted this point in the National Broadband Plan (NBP), which was prepared at the request of Congress and released in 2010. In the NBP, the FCC explains the importance of broadband infrastructure this way:

Today, high-speed Internet is transforming the landscape of America more rapidly and more pervasively than earlier infrastructure networks. Like railroads and highways, broadband accelerates the velocity of commerce, reducing the costs of distance. Like electricity, it creates a platform for America's creativity to lead in developing better ways to solve old problems. Like telephony and broadcasting, it expands our ability to communicate, inform and entertain.²

In the NBP, the FCC also observed that at that time 100 million Americans did not have broadband at home, and many areas of our nation lacked any access to broadband services.³ As a remedy, and to ensure that broadband achieves its full potential for our economy and nation, the FCC set on a path to reform universal service mechanisms "to support deployment of broadband and voice in high-cost areas; and ensure that low-income Americans can afford broadband."⁴

The Universal Service Fund has been successful in deploying ubiquitous telecommunications infrastructure, but needs reform to remain successful in a broadband world

Telecommunications provides an excellent example of what it takes to deploy infrastructure and technology throughout this diverse nation and the constructive role that government can play in this process. In the early days of telephone deployment, the Bell System built its network in cities, towns and other areas where it would be profitable. But it largely bypassed rural areas where distance between customers was long, density low, and costs high. On the belief that networks become more valuable when everyone is connected (also known as the "network effect"), the Communications Act of 1934 formally established the goal of universal service. Congress

¹ Federal Communications Commission, Connecting America: The National Broadband Plan, at 3 (Mar. 16,

^{2010),} available at http://www.broadband.gov/download-plan/ ("National Broadband Plan") (emphasis in original). ² Id.

³ Id.

⁴ Id at page xi.

codified this principle in the Telecommunications Act of 1996, and more importantly, established the means by which universal service should be paid for:

- Consumers in all regions of the nation, including rural, insular and high-cost areas, should have access to telecommunications and information services that are reasonably comparable to those services provided in urban areas and that are available at comparable rates;
- All providers of telecommunications services should make an equitable and non-discriminatory contribution to the preservation and advancement of universal service; and
- There should be specific, predictable and sufficient federal and state mechanisms to preserve and advance universal service.⁵

The national model has been to have private capital extend communication networks as far as possible, with universal service funding supporting the build-out of networks in areas where they would not otherwise be economically viable. As a result of universal service, networks have been built across this country that have enabled nearly 98% of all Americans to access voice communications service.

In 1996, very few people were even aware of what would eventually become today's Internet. At that time, the Internet was still essentially a plaything for technology wonks, academics, and defense planners. There was very little (if any) e-mail or e-commerce. There was no Facebook or Twitter. Streaming video and text messaging technologies were in their infancy. Useable Voice over Internet Protocol (VoIP) telephony services were over a decade away. Data speeds were measured as Kilobits (thousands of bits per second), not the Mega- (millions), Giga- (billions), or Tera- (trillions) bits per second that are referenced today.

The USF contribution rules developed in 1996, which are based on voice-telephone service, are still largely in use today, and they require that a contributing carrier's revenues be separated three ways. First, revenues must be separated between "telecommunications" services and "information" services. Next, telecommunications service revenues are separated between revenues from "end-users" (i.e., retail revenues) and "carrier's carrier" services (i.e., wholesale services). Finally, end-user telecommunications revenues must be separated between interstate, intrastate, and international services. Each carrier's contribution obligation to the federal universal service fund is based on its quarterly interstate and international end-user telecommunications revenues.

It should not be surprising that a funding mechanism designed for the largely analog, circuit-switched and voicecentric telecommunications world of the 1990s is having difficulty adapting to the digital, packet-switched, IP and broadband communications world of today. If the universal service fund is to support the ubiquitous deployment of broadband infrastructure, the USF Contribution Mechanism must be fundamentally reformed.⁶

⁵ Telecommunications Act of 1996 § 254(b).

⁶ In fact, the FCC has been in the process of reforming the USF distribution mechanism since it adopted the USF/ICC Transformation Order in 2011, Report and Order and Further Notice of Proposed Rulemaking, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, WT Docket No. 10-208, and CC Docket Nos. 01-92, 96-45, Released November 18, 2011, FCC 11-161.

The current USF Contribution Mechanism is unsustainable and must be reformed quickly if serious economic consequences are to be avoided

The current \$8.7B⁷ federal USF is funded by an assessment on each contributing carriers' interstate and international end-user telecommunications revenues. Each quarter, the Universal Service Administrative Company (USAC) determines the funding needs of each of the four programs that make up the federal universal fund: High-Cost, Lifeline, Schools & Libraries (E-rate), and Rural Health Care. USAC also determines the size of the assessment revenue base using revenue data provided by over 3,000 contributing carriers. Dividing the funding needs by the revenue base yields the "Contribution Factor" that will be used to determine how much each telecommunications carrier must contribute to the universal service fund for that particular quarter. Chart I shows the growth of the USF Contribution Factor since 2000.





The USF contribution factor for the fourth quarter of 2017 is projected to be 18.8%. The contribution factor has been growing over the past decade for two basic reasons. First, the overall demand for USF support (the numerator in the contribution factor equation) has been growing. To put the overall USF in perspective, Table I shows the size for each program in calendar year 2016. Chart II shows the growth in the overall USF as well as changes in each of the programs from 2009 to 2016.

Table I – 2016 Fund Size					
Program	Size (\$Billions)				
High-Cost	\$4.56				
Schools and Libraries	\$2.39				
Lifeline	\$1.51				
Rural Health Care	\$.30				
	\$8.76				

⁷ Universal Service Administrative Co. 2016 Annual Report. <u>http://www.usac.org/_res/documents/about/pdf/annual-reports/usac-annual-report-interactive-2016.pdf</u>



Chart II - Growth in the Universal Service Fund

While high-cost funding for incumbent local exchange carriers (ILECs) has remained relatively constant, other USF components have experienced significant growth. Throughout most of the past decade, support to competitive eligible telecommunications carriers (CETCs) grew significantly. In the years leading up to 2013, there was steady growth in the Lifeline program, due in large part to prepaid wireless Lifeline services. To combat "waste and inefficiency, increase accountability, and transition the [Lifeline Program] from supporting stand-alone telephone service to broadband"⁸ the FCC released a Lifeline Reform Order in February 2012. After eliminating some of the abuses of the program, spending declined for several years, but recently saw an increase in 2016.

In its 2011 USF and Intercarrier Compensation Transformation Order, the FCC capped the overall size of the High Cost program at \$4.5B per year.⁹ For funding year 2014, the inflation-indexed cap for the E-rate Program was \$2.41B,¹⁰ However, the FCC in its Second E-Rate Modernization Order, raised the annual E-rate funding cap to \$3.9B beginning in funding year 2015.¹¹ This \$1.5B increase could place significant additional upward pressure on the contribution factor.¹² The Rural Health Care Program has operated since its inception with a cap of \$400M;¹³ and recently has it hit the cap.

⁸ Lifeline and Link Up Reform and Modernization et al., WC Docket No. 11-42 et al., Report and Order and Further Notice of Proposed Rulemaking, 27 FCC Rcd 6656 ¶2 (Feb. 6 2012)

^{(&}quot;Lifeline Reform Order"). It is notable that the Lifeline fund decreased from \$2.2B in 2012 to \$1.8B in 2013.

⁹ *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 ¶ 18 (2011) ("USF/ICC Transformation Order").

¹⁰ Wireline Competition Bureau Announces E-rate Inflation-Based Cap for Funding Year 2014, CC Docket No. 02-6, DA-14-426.

¹¹ Second Report and Order and Order on Reconsideration in WC Docket Nos. 13-184 and 10-90, released December 19, 2014, FCC 14-189. The 2015 funding year runs from July 1, 2015 through June 30, 2016.

¹² Rather than immediately increase the contribution factor to meet increased demand on the E-rate program, the FCC directed USAC to use reserve funds to cover the increase in E-rate distributions.

 ¹³ In re Rural Health Care Support Mechanism, WC Docket No. 02-60, Report and Order, 27 FCC Rcd 168175,
¶ 347 (2012) (Heathcare Connect Fund Order).

A second and more serious reason why the contribution factor is growing is a decline in interstate and international end-user telecommunications revenues (the denominator in the contribution factor equation). The total amount of interstate and international telecommunications revenues has been declining since 2002. These revenues have dropped from \$19.5B in the first quarter of 2002 to \$15.0B in the fourth quarter of 2017.¹⁴

One reason that these revenues will continue to decline is the sheer size of the contribution factor itself. At a 18.8% assessment, carriers have a powerful incentive to make their traffic look like some other type of traffic or service that is not currently assessed for universal service. *This is not particularly hard to do.* For example, long-distance calls pay into the federal USF but local calls do not. There was a time when consumers paid separately for local and long-distance services, but in today's marketplace consumers, wireline and wireless, are showing a strong preference for "bundles" of local and long-distance minutes and services. Some plans even offer unlimited long-distance calling. This all makes it difficult to tell what revenue is interstate or intrastate. Also, consumers have found other ways around traditional long-distance calling by using Internet Protocol (IP)-based substitute services and applications such as email, messaging services such as WhatsApp, Facebook, Skype and Twitter. Use of service bundles and alternative IP-based communication services will continue to grow, lowering interstate long-distance revenues, and putting further upward pressure on the USF contribution factor as currently structured.

Absent fundamental changes in how universal service is funded, a continually increasing contribution factor will, sooner or later, lead to a death-spiral that will make it impossible to collect funds necessary to cover the current USF programs, including programs that support the continued deployment and improvement of affordable broadband service in high-cost rural areas. This will have disastrous consequences for consumers and businesses in rural America. It will also harm low-income consumers and broadband access in schools, libraries, and rural health care facilities.

It is doubtful that other carriers would be willing or able to take over operations in the most rural and costly-toserve areas, and consumers would face the loss of basic voice service, let alone high-speed broadband.¹⁵ Even if rural carriers could remain economically viable without USF funding, it is unlikely that they would be able to make the new broadband infrastructure investments that will be necessary to maintain parity with ever-faster broadband speeds offered by carriers in urban areas.¹⁶ Should this "digital divide" continue to grow, it would inflict serious harm on rural consumers, rural jobs, and rural economic development.

Should urban (and worldwide) broadband speeds advance to where slower rural networks prevent effective Internet communication, businesses and jobs will gravitate to urban areas, rural residents would become even more isolated, and the promise that broadband once held for rural economic development and quality of life would have been wasted.

¹⁴ Universal Service Administrative Company quarterly reports 1Q2000 and 4Q2017.

¹⁵ The FCC's Fifth Order on Reconsideration, released November 16, 2012, at ¶20, does provide limited relief in circumstances where a petitioner can demonstrate that a reduction in high-cost support would put consumers at risk of losing voice services. However, if the loss of such support were due to a failure of the USF contribution mechanism, then this "relief" would not be possible either.

¹⁶ In addition to the other serious problems that this would cause, it would violate Section 254(b)(3) of the Act, as amended, since it provides that rural consumers should have access to services "reasonably comparable" to those available in urban areas.

Rural rate-of-return carriers and their customers would not be the only victims if policymakers fail to address the USF contribution mechanism in a timely manner. Failure to act would also impact recipients of E-rate, Lifeline, and Rural Health Care funding and the impact would be felt across the country, not just in high-cost states.

Table II shows the funding profile for the top 10 States/Territories in terms of overall annual USF receipts. Notice that California, which ranks 7th in receipt of High-Cost funding, is the highest overall USF recipient, receiving well over \$700 million annually, because it ranks first in Lifeline and E-rate funding and 2nd in Rural Health Care funding. It is also notable that two of the top-ten States – New York and Florida – rank in the bottom half for High-Cost funding, yet make the top-ten due to their Lifeline and E-Rate receipts.

		Ranking						
State	Total USF	High Cost	Lifeline	E-Rate	Rural Health			
California	\$721	7	1	1	2			
Texas	\$644	1	3	2	3			
Alaska	\$378	3	32	7	1			
Oklahoma	\$285	11	6	15	5			
Georgia	\$261	12	9	6	7			
Wisconsin	\$258	2	22	28	4			
Florida	\$255	34	4	3	19			
New York	\$247	36	2	5	13			
Illinois	\$244	16	10	8	18			
Kentucky	\$236	10	14	22	15			

Table II – Top 10 USF Recipients (\$ Thousands)

Source: 2017 USAC Annual Report

<u>The manner in which the United States has funded prior infrastructure initiatives provides useful guidance for</u> <u>current efforts to support ubiquitous broadband deployment</u>

Bonds sold by the State of New York financed the Erie Canal, and the costs of its construction and maintenance were recovered through tolls paid by canal users. As authorized in the Pacific Railroad Act of 1862, the transcontinental railroad was financed by a combination of 30-year bonds to be repaid from railroad operations and generous land grants along the railroad's route. The Rural Electrification Act (REA) of 1936 created a federal agency to make and/or guarantee low-cost loans to locally-owned cooperatives for the extension of electric service to unserved rural areas. In 1949, the REA was reauthorized to make loans for the extension of telephone service to areas that did not have service.

The history of the Interstate Highway System is more recent and offers interesting parallels to the issues that will be faced in reforming the funding for rural broadband infrastructure.¹⁷ Similar to today's broadband network, a rapid and efficient road network promised to serve as a powerful engine for commerce, economic growth, community development, and quality of life. Thomas H. McDonald, a transportation visionary who headed the Bureau of Public Roads (BPR) from 1918 to 1953, observed:

¹⁷ Richard F. Weingroff, *Federal-Aid Highway Act of 1956: Creating the Interstate System*, PUBLIC ROADS Vol. 60 No. 1, U.S. Department of Transportation, Federal Highway Administration (Summer 1996); Richard F. Weingroff, *Moving the Goods: As the Interstate Era Begin*, U.S. Department of Transportation, Federal Highway Administration (Updated Oct. 15, 2013), https://www.fhwa.dot.gov/infrastructure/freight.cfm.

We were not a wealthy Nation when we began improving our highways ... But the roads themselves helped us create a new wealth in business and industry and land values ... So it was not our wealth that made our highways possible ...Rather, it was our highways that made our wealth possible.

In the Federal-Aid Highway Act of 1938, Congress directed the BPR to study the feasibility of building a network of "superhighways," including the feasibility of a toll system to pay for such roads. The BPR responded with a two-part report. In the first part, BPR concluded that while some routes (primarily those in and around major urban areas) could be self-supporting as toll roads, most highways in a national network would not. Part II included a "Master Plan for Free Highway Development" including a plan for a 27,000 mile non-toll, limited-access interregional highway network. Subsequently, the Federal-Aid Highway Act of 1944 proposed a 40,000 mile "National System of Interstate Highways" with routing to be selected by joint action of the state highway departments. The plan provided that roads would be designed based upon traffic expected 20 years from the date of construction. However, the 1944 Highway Act included no specific funding for construction of the Interstate Highway System. While token funding was provided in Federal-Aid Highway Acts of 1952 and 1954, the vision for a national Interstate Highway System still remained elusive.

President Dwight Eisenhower was a major supporter of an improved national road network. Eisenhower had his initial experience with the poor state of America's roads when he participated in the U.S. Army's first transcontinental motorcade from Washington, D.C. to San Francisco in 1919. Later, his experience during WWII with Germany's Autobahn network convinced him that what America needed was not just a good network of two-lane highways, but a system of "broader ribbons [of road] across the land." At a meeting with state governors in 1954, Eisenhower proposed a "grand plan" for a "properly articulated national system of highways." He called for a self-liquidating method of financing that would avoid debt. He also called for a cooperative alliance between state and federal officials to develop and accomplish such a plan.

In 1955, a bill was introduced in the House of Representatives that sought to implement Eisenhower's vision. The bill proposed a 12-year build-out of the Interstate Highway System paid for on a pay-as-you-go basis as funding came in. The bill proposed a penny per gallon hike in the federal gas tax, as well as graduated tax increases on automobiles, trucks, and tires with revenue informally committed to the program. The federal government would cover 90% of the cost, with the states covering the remainder. The House defeated the bill by a significant margin, despite prior expectations that it would be approved. This prompted House Majority Leader John McCormack (D-MA) to observe, "Everyone wants a highway program, but no one wants to pay for it."

An intense lobbying effort led by the trucking industry and including rubber manufacturers, tire dealers and farm groups helped to doom the legislation. At the time, the President of the American Trucking Association argued that the bill would increase taxes to "confiscatory, ruinous and unjustified levels," and that the proposed taxes would result in heavy trucks and buses paying about 45% of the cost of the system.

The reality, however, was that the trucking and other road-related industries badly needed the new highway program and the expanded business opportunities that it would provide. What the truckers and other parties were really concerned about was that they were being asked to pay a disproportionate share of the cost, and that they would be put at a competitive disadvantage vis-à-vis other freight hauling providers (e.g., railroads). In late 1955, Secretary of Commerce Sinclair Weeks formed a committee including the Secretaries of Treasury, Defense, Agriculture and Labor to work with the various stakeholders to develop a plan to equitably fund the new highway infrastructure. By early 1956, the major parties had agreed to a new schedule of taxes and fees to fund construction of the Interstate Highway System. The Federal-Aid Highway Act of 1956, (also known as the National Interstate and Defense Highways Act) created the Highway Trust Fund to ensure that all highway user



tax revenue would be used only for its intended purposes. The revised proposal was passed by a vote of 388 to 19. On June 29, 1956, President Eisenhower signed the Act into law formally creating the Interstate Highway System.

Almost 60 years later, our nation's investment in the Interstate Highway System stands as a shining example of how our federal government can work at its best. The modest increases in fuel taxes and other fees needed to fund the enabling infrastructure did not kill the trucking industry – instead they allowed the trucking industry to grow and prosper. In 1956, the trucking industry carried 20% of the nation's freight; by 2006 that had increased to 70%. In 1956, there were only 120,000 tractor-trailers operating in the United States; by 2006 there were over 2 million. Trucks carried 500,000 tons of freight in 1956; by 2006 freight tonnage had increased to over 10 billion.¹⁸ Similar success stories can be found in the motor fuels, automobile, travel and lodging, and countless other industries.

Major takeaways from the Interstate Highway process that can be useful in guiding the design of a forward-looking contribution mechanism for broadband infrastructure funding can be summarized as follows:

- 1. Begin with a vision of the network that will be needed 20 years from now not just present needs;
- 2. Incorporate the states early-on in the planning, design, and funding of a national infrastructure network;
- 3. Structure the funding mechanism so that *all* stakeholder groups that stand to benefit from the infrastructure contribute to its construction and maintenance on a fair and equitable basis;
- 4. To the greatest extent possible, involve the stakeholders that will benefit from the new infrastructure in the debate over how the infrastructure should be paid for; and
- 5. Ensure that all funds collected actually go to the construction and maintenance of the promised infrastructure.

<u>Contributions to support needed infrastructure investment are not so much a "tax" as they are a "user fee"</u> Traditional taxes are collected by the government from a broad cross-section of individuals or businesses and are spent on a wide variety of programs of the government's choosing. Any given individual has no idea what government programs his or her tax payments are being spent on, and it is possible that his or her money is being spent on programs that may not directly benefit him or her.

Infrastructure assessments such as highway user fees or Universal Service Fund contributions are different. A single rural telecommunications provider does not have the resources to build a ubiquitous communications network, particularly in sparsely populated rural areas where the realities of low density and long distances between customers make it impossible to cover network infrastructure costs from revenues that would be generated by network users alone. Similarly, the 1938 Bureau of Public Roads study found that toll roads would not work in many regions of an interstate highway system since lower traffic volumes could never support the high costs of rural segments of the road network. In both cases, the solution has been the creation of a nationwide infrastructure funding process – in the case of telecommunications, the Universal Service Fund and in the case of roads, the Highway Trust Fund.

Three important features distinguish successful infrastructure funding initiatives:

- 1. Only those who use or benefit from the supported infrastructure are required to make contributions;
- 2. The funds are segregated and used only for their intended purpose; and

¹⁸ American Trucking Associations, *Trucking and the Economy*, www.truckline.com.

3. A "network effect," exists, where the infrastructure network becomes more valuable to all users as additional users are connected.¹⁹

Traditional economic theory suggests that as taxes are increased, consumption will decrease.²⁰ However, successful infrastructure initiatives have exactly the opposite impact. The cost of the modest transaction fees is exceeded many fold by the economic opportunity enabled by the new infrastructure. The Highway Trust Fund and the Universal Service Fund are both examples of infrastructure funding initiatives that have directly led to significant economic growth, new jobs and industries, and an improved quality of life.

<u>Universal availability of affordable broadband connections can be ensured by expanding the USF contribution</u> factor's funding base so that all parties that benefit from the supported infrastructure contribute

The current 18.8% USF contribution factor is unsustainable and must be reformed. There are only two ways to lower this factor – either reduce the size of the fund or expand the funding base. Reducing the size of the fund for the purpose of lowering the contribution factor would be detrimental to the tens of millions of Americans who depend on the ubiquitous availability of affordable high-speed internet connections to their homes, businesses, schools and libraries that USF funding enables. These needs are growing, not declining.

The FCC has recognized the need for increased broadband speeds to meet ever-growing bandwidth requirements of consumers. In its November 2011 USF Transformation Order that revamped the High Cost distribution mechanism to support rural broadband infrastructure, the FCC established a minimum broadband download speed requirement of 4Mbps.²¹ In June 2014, the FCC effectively increased the minimum download speed requirement to 10Mbps to ensure that the services delivered using Connect America funds are reasonably comparable to those enjoyed by consumers in urban areas of the country.²² In its 2016 USF Reform Order, the FCC increased download speed standards to 25Mbps and set upload speeds at 3Mbps to ensure rural broadband speeds keep pace with urban speeds.²³ The Fund cannot sustain long-term reductions and still accomplish its goal of ensuring comparable broadband access for all Americans.

That leaves expanding the base of contributors as the solution to the growing contributions factor. It is entirely appropriate and, more importantly, in the public interest that broadband Internet connections, regardless of technology or provider, are included in the assessment base for USF funding. Indeed, since the High Cost, Lifeline, E-rate and Rural Health Care programs have all either been repurposed or are in the process of being revamped to support broadband services and infrastructure, it would be totally *inappropriate* for providers of broadband internet connections *not* to contribute to these programs. This is not "taxing the Internet." It is reforming the communication user fee system to take into account changes in technology and future infrastructure needs. It is making the Internet more valuable by enabling all users, existing and new, to join and allowing it to continue to be an engine of economic growth, job creation, etc. Doing so will ensure that all those that benefit from ubiquitous, affordable broadband access to the Internet help to pay for the infrastructure

¹⁹ For example, Metcalf's Law states that the value of a telecommunications network is proportionate to the square of the number of connected users of the system (n^2) .

²⁰ Indeed, the federal government and many states impose taxes on alcohol and tobacco products so as to reduce consumption of these substances.

²¹ USF-ICC Transformation Order at ¶26..

²² Report and Order, Declaratory Ruling, Order, Memorandum Opinion and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking in WC Docket Nos. 10-90,14-58 and 07-135, WT Docket No. 10-208, and CC Docket No. 01-92, released June 10, 2014, FCC 14-54 at ¶ 10.

 ²³ Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking in WC Docket Nos.
10-90 and 14-58 and CC Docket No. 01-92, released March 30, 2016.

investments in the highest-cost areas of our nation that will be necessary to make it possible for all Americans to benefit from widespread availability of broadband.

Doing so will also ensure that consumers, who ultimately pay the bill for USF funding, are treated in a fair and equitable manner across all communications services. The current rate of 18.8% is only applied to consumers of a subset of legacy voice-centric services that are rapidly dying. Consumers of newer, more digitally oriented services who also benefit from these programs currently pay nothing towards necessary support mechanisms. Expanding the funding base to include such services will allow for a dramatic reduction in the contribution factor and a more equitable distribution of program costs among consumers. It is also important to remember that USF contribution reform, by itself, will not increase the total amount that consumers pay for USF support mechanisms. It will merely redistribute existing funding requirements in a more equitable way that will avoid the serious market distortions that the current antiquated system presents.

In a report filed with the FCC by NTCA – The Rural Broadband Association clearly illustrates, a rational expansion of the USF contribution base could have a significant impact on the contributions factor.²⁴ By expanding the funding base to just include:

- Fixed and mobile retail broadband internet access revenues;
- Texting revenues; and
- Non-interconnected (1 way) VoIP service revenues;

the contribution factor for the first quarter of 2015 could have been reduced from 16.8% to 4.6%. By further expanding the contribution base to include all telecommunications service providers that benefit from ubiquitous broadband infrastructure the contribution factor could be reduced even more.

<u>The FCC will soon have all of the tools and information that it needs to reform the antiquated USF Collection</u> <u>Mechanism – Now is the time for action!</u>

The problems with the current USF collection mechanism have existed for some time and are well known and documented. Chart I shows the relentless upward trajectory of the assessment factor on shrinking elements of traditional telecommunications services. If the contribution methodology is not fixed soon, the possibility of a collapse of the USF funding system is real, with the serious implications for rural America and other USF beneficiaries noted earlier.

In recent years, the FCC has had several initiatives to "refresh the record" on USF contributions issues, the most recent being a *Further Notice of Proposed Rulemaking (FNPRM*) in Docket WC 06-122 released April 30, 2012. The FCC states: "Since the adoption of the current contribution system after the Telecommunications Act of 1996, the communications ecosystem has undergone extensive changes that have brought great benefits to consumers." The FCC further notes that this evolution "has led to a series of stresses on the contribution mechanism," including "competitive distortions because different contribution obligations may apply to similar services depending on how a service is provided."²⁵ The Notice asks a number of questions in four specific areas:

- 1. Who should contribute?
- 2. How should contributions be assessed?
- 3. How could the administration of the contribution system be improved?
- 4. How should carriers recover their contributions to the USF from their end-user consumers?

 ²⁴ Letter from Michael R. Romano to Marlene H. Dortch, January 13, 2015, GN Docket No. 14-28 and WC Docket No. 06-122.
²⁵ Contributions FNPRM at ¶s 3 and 4.

On July 9, 2012, the FCC received comments from 84 parties, including WTA and its rural partners, reflecting a wide variety of communications interests. There was a wide variety of opinions given by the parties based upon their particular position in the ecosystem. The one thing that all parties agreed on, however, was that the current system is in need of modernization to function effectively in a broadband world.

On February 12, 2014, the National Association of Regulatory Utility Commissioners (NARUC), representing state regulatory bodies across the United States, adopted a Resolution²⁶ calling on the FCC to:

- Complete the Docket No. 06-122 rulemaking that was initiated in 2012;
- Expand the contribution base so that all communications services, including services such as broadband that are required to be offered in order to receive federal support, contribute to the USF;
- Move forward on contribution methodology reform and ensure the fairest allocation of the contribution burden between residential and business consumers throughout the country and do so with dispatch since expanding the contribution base is a desirable option that has been set to the side for too long.

On August 7, 2014, the FCC issued a formal referral to the Federal-State Joint Board on Universal Service seeking recommendations on how the Commission should modify the universal service contribution mechanism.²⁷ The FCC asked the Joint Board to examine the record developed in response to the 2012 FNPRM and provide recommendations within the scope of the issues raised in that proceeding. The FCC also asked the Joint Board to focus especially on issues that would impact the important role of the states in accomplishing universal service objectives and protecting consumers. The FCC requested that the Joint Board present its recommendations no later than April 7, 2015. To date, the Joint Board has yet to respond to this request.

As soon as the Joint Board makes its recommendations, the FCC should move expeditiously to implement comprehensive universal service contribution reform. There is no perfect answer to the USF contribution puzzle. There is a wrong answer, however, and that is to do nothing. Perhaps policymakers could borrow a best practice from the Interstate Highway experience and bring the various stakeholder groups together to help find a solution.

As noted earlier, the perception of equity among all of those that will pay for an infrastructure funding initiative is a critical and necessary component for success. Time is of the essence, however. The promise of ubiquitous, high-speed broadband Internet access is too important an economic opportunity for our nation to squander. It would be a failure to not promptly fix the antiquated, unfair, and increasingly dysfunctional USF collection mechanism.

WTA represents more than 280 rural telecommunications companies providing quality broadband, voice, and video services in rural areas in the United States. On average, WTA members serve fewer than 3000 customers in some of the most rural and hard-to-serve communities in the country and are on the forefront of bringing 21st Century telecommunications services to rural America. For more information about WTA visit www.w-t-a.org.

²⁶ See National Association of Regulatory Utility Commissioners, *Resolution Supporting Reform of the Federal Universal Service Fund Contribution System* (Feb. 12, 2014),

http://naruc.org/Resolutions/Resolution%20Supporting%20Reform%20of%20the%20Federal%20Universal%20Service%20Fund%20Contribution%20System.pdf.

²⁷ Order in WC Docket Nos. 96-45 and 06-122 and GN Docket No. 09-51, Released August 7, 2014, FCC 14-116.

This paper was prepared for WTA by McLean & Brown, a telecommunications consulting company specializing in universal service, intercarrier compensation and rural broadband issues. For more information about McLean & Brown visit <u>www.mcleanbrown.com</u>.



	High Cost Program		Lifeline Program		Rural Health Care Program		Schools and Libraries Program		Total USF Support 2016	
State	Rank	HC USF	Rank	Lifeline USF	Rank	RHC USF	Rank	S&L USF	Rank	Total USF
Alabama	21	\$92,831	24	\$19,771	27	\$3,024	17	\$51,552	27	\$167,178
Alaska	3	181,687	33	10,516	1	100,858	7	85,225	3	378,286
American Samoa	50	3,193	56	16	56	0	55	1,065	56	4,274
Arizona	32	73,052	12	45,855	10	7,053	14	58,566	23	184,526
Arkansas	15	112,374	32	11,011	8	8,419	24	41,477	26	173,281
California	7	169,216	1	232,264	2	17,491	1	293,804	1	712,775
Colorado	34	62,938	35	9,660	17	4,869	32	21,769	36	99,236
Connecticut	53	454	29	13,034	45	289	35	19,024	46	32,801
Delaware	54	228	42	4,137	53	0	47	5,425	53	9,790
District of Columbia	56	0	40	5,083	52	0	45	6,401	52	11,484
Florida	35	61,322	4	92,596	19	4,466	3	96,709	7	255,093
Georgia	13	113,737	10	50,457	7	8,421	6	88,799	5	261,414
Guam	46	11,506	54	155	47	42	56	679	51	12,382
Hawaii	47	8,297	44	2,752	49	21	42	8,424	50	19,494
Idaho	39	43,130	47	1,492	33	2,015	41	9,080	41	55,717
Illinois	17	110,645	11	48,257	18	4,620	8	80,778	9	244,300
Indiana	16	112,143	18	23,716	22	4,397	10	61,266	18	201,522
lowa	5	177,870	36	7,087	30	2,511	37	15,606	17	203,074
Kansas	8	167,995	38	6,602	24	3,780	34	21,467	20	199,844
Kentucky	10	149,106	15	28,600	16	5,011	22	43,607	12	226,324
Louisiana	22	91,628	17	26,579	28	2,887	11	60,690	25	181,784
Maine	40	30,898	41	4,207	39	1,041	43	7,182	45	43,328
Maryland	48	3,617	21	23,190	46	197	33	21,659	44	48,663
Massachusetts	51	2,378	19	23,484	42	491	26	36,382	39	62,735
Michigan	26	85,248	8	60,423	25	3,482	18	51,332	19	200,485
Minnesota	6	175,095	31	11,782	23	4,188	28	31,750	15	222,815
Mississippi	4	180,217	27	16,711	6	9,503	27	33,234	10	239,665
Missouri	9	164,778	28	15,304	12	5,500	20	46,736	11	232,318
Montana	19	100,844	48	1,443	34	1,965	48	4,950	32	109,202
Nebraska	24	89,800	51	902	26	3,455	39	11,957	34	106,114
Nevada	42	28,924	30	12,646	40	883	40	10,674	42	53,127
New Hampshire	45	13,291	46	1,882	41	551	49	4,171	48	19,895
New Jersey	52	1,083	10	27,841	50	U F 104	20	58,674	37	127 220
New Wexto	29	82,257	22	20,315	14	5,104	30	29,544	30	137,220
New YORK	3/	50,385	12	101,042	11	5,418	5	90,111	0	247,550
North Dakota	11	112 544	15	1 022	21	2,022	4 E2	91,454	21	120,600
Northorn Mariana Islands	14	2 402	45	1,923	51	2,395	53	2,837	55	120,099
Obio	20	92 91/	7	61 226	20	2 551	0	1,307	12	4,933
Oklahoma	11	130 657	5	86 786	5	10 762	16	57 224	13	225,124
	31	77 177	37	7 087	21	4 440	36	18 975	22	107 679
Pennsylvania	33	72 860	9	57 430	20	4,440	12	58 842	21	193 572
Puerto Rico	12	115 237	6	65 594	48	33	23	43 160	14	224 024
Rhode Island	55	30	39	5,795	51	0	51	3,780	54	9,605
South Carolina	18	108 756	20	23 194	32	2 146	19	49 583	24	183,679
South Dakota	20	94.211	50	1.095	35	1.602	46	5.749	35	102.657
Tennessee	23	90.188	14	34.010	15	5.021	15	57,494	22	186.713
Texas	1	294.023	3	93,794	3	12.188	2	244.014	2	644.019
Utah	41	29.995	43	3.553	38	1.346	31	23.363	40	58,257
Vermont	43	20,410	49	1,438	44	346	50	4,090	47	26,284
Virgin Islands	44	16,428	52	344	54	0	52	2,992	49	19,764
Virginia	25	88,267	25	19,633	9	7,987	21	44,212	28	160.099
Washington	30	80,998	26	18,599	36	1,450	25	37,389	29	138,436
West Virginia	36	60,103	34	10,345	37	1,395	38	15,417	38	87,260
Wisconsin	2	195,954	23	20,205	4	10,999	29	31,178	6	258,336
Wyoming	38	43,264	55	86	43	403	44	6,528	43	50,281
Total		\$4,556,220		\$1,511,066		\$298,076		\$2,386,757		\$8,752,119

Appendix A - Universal Service Funding by Program - 2016 (in thousands \$)

Source: 2016 USAC Annual report