



Statement Before the Senate Committee on Commerce, Science, and Transportation  
Subcommittee on Communications, Media, and Broadband

# Assessing the State of the Universal Service Fund

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Chair Cantwell, Ranking Member Cruz, Chair Luján, Ranking Member Thune, and members of the committee, thank you for the opportunity to appear before you at today's hearing on the state of universal service. I am a nonresident senior fellow at the American Enterprise Institute and a professor at Boston College Law School, where I teach and write about telecommunications and internet law.

I applaud the subcommittee's focus on this issue. The Universal Service Fund is an important program with a laudable mission. The basic tenet of universal service—that the government should assist those who struggle to access the network—has long been a cornerstone of American telecommunications policy. One of the Federal Communications Commission's (FCC) primary obligations is to “make available, so far as possible, to all the people of the United States...a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges.”<sup>1</sup> This mission takes on greater significance in the digital age, when internet access is important for not just communication but also employment, commerce, education, and countless other activities.

Unfortunately, while the Universal Service Fund's goals are sound, there is significant room for improvement regarding modernizing these programs for the digital age. This is particularly true of Lifeline, which has been repeatedly criticized as ineffective, incomplete, and unnecessarily paternalistic. The committee should also consider re-evaluating E-Rate in light of the mixed evidence of its effectiveness. Through trial and error, the High Cost Fund has made a more successful transition to the broadband era and has yielded important lessons that the program should retain going forward.

### **Lifeline**

Lifeline is a program near and dear to my heart, because I grew up in the kind of family it is designed to serve. I spent my childhood in a trailer park. When I was admitted to Harvard University, the first person to find out wasn't one of my parents, but my friend's mom, Mrs. Ziarnick. I had to call the admissions office from her house because our phone had been turned off. Of course, that was in the era before the broadband revolution moved disclosures like these to the web. As more of our daily lives moves online, it becomes increasingly important to make sure that low-income families are not shut out of the information revolution.

The purpose of Lifeline is clear. In a 2012 reform order, the Commission identified three goals for the Lifeline program: (1) ensure the availability of voice service for low-income Americans, (2) ensure the availability of broadband for low-income Americans, and (3) minimize the Universal Service Fund contribution burden on consumers and businesses.<sup>2</sup> In other words, Lifeline's goal is, and should be, to help low-income families who would otherwise lack access get voice and broadband service in a cost-efficient fashion.

Unfortunately, it is far from clear whether Lifeline actually helps achieve that goal. Despite a decade of prodding by the Government Accountability Office (GAO), the FCC has not developed metrics to evaluate whether the program is effective. A recent independent audit by Grant Thornton concluded that while the broadband gap is declining, “there is no evidence to support whether or not the Lifeline program has improved access to voice and broadband

services for low-income consumers.”<sup>3</sup> Other data suggest that much of Lifeline’s spending is likely wasted on households that are at little risk of dropping off the network.

Part of the issue lies with the way the program was repurposed from a telephone-era subsidy to a broadband program. Historically, Lifeline typically offered eligible households \$9.25 per month toward their monthly telephone service. As the FCC began updating the program for the digital age, the GAO recommended that the agency study low-income households’ telecommunications needs, to “effectively target funds based on data-driven information.”<sup>4</sup> But the agency declined to do so. Instead, it simply extended the existing Lifeline program so the same \$9.25 subsidy could now be used for voice or broadband service. Even assuming that a \$9.25 per month subsidy had an appreciable effect on telephone penetration rates—and the FCC admitted that did not know whether this was the case<sup>5</sup>—there is no reason to believe that the same amount would compel unconnected homes to purchase broadband service, which is a more expensive and complex product. Without conducting a study to determine the factors driving low adoption rates, the FCC cannot conclude that offering \$9.25 per month to 7 million households will boost adoption rates more than offering a larger amount to a smaller number of households would: for example, \$46.25 per month to 1.4 million recipients, which would cost the same amount of money.

In fact, the limited data suggests that small stipends are unlikely to affect low-income broadband adoption rates. From 2012 through 2014, the Commission conducted several pilot programs to test broadband subsidies.<sup>6</sup> While the agency estimated that 74,000 consumers would sign up for these trials, the pilot ultimately drew only a tenth of that amount—even after extensive promotion. The small sample size and various methodological flaws limit the conclusions that can be drawn from this data, especially since the pilot programs occurred nearly a decade ago. But recognizing these limitations, the pilots suggested that low-income households are most likely to respond if the subsidy made the plan free or close-to-free. This is consistent with the Commission’s earlier experience with wireless voice service, which saw significant growth once TracFone and other wireless innovators figured out how to deliver a product at no additional cost to Lifeline families: free wireless service was seen as a bigger draw than discounted landline service.

In addition to being potentially ineffective, Lifeline is incomplete, since it does not address the other potential drivers of broadband non-adoption. According to the most recent Pew Research data, those households that do not subscribe to home broadband service cite a variety of reasons.<sup>7</sup> While the monthly cost of service is the most often mentioned factor, at 20 percent, some households are uninterested because a smartphone meets their connectivity needs. Others cite availability, the cost of a computer, and disinterest in internet access as rationales. This suggests that a comprehensive approach to low-income non-adoption would encompass not just monthly plan subsidies, but also an equipment subsidy and funding to promote broadband availability and digital literacy.

Lifeline also reflects unnecessary paternalism that limits recipients’ choices and distorts telecommunications markets. Lifeline households cannot use their subsidy toward a plan of their choice. Instead, they may select from a limited menu of companies that have been certified as meeting the FCC’s minimum service criteria. Admittedly, there are good reasons why the FCC

enforces these criteria, to make sure carriers adhere to Lifeline rules. But the effect is to steer millions of customers and nearly a billion dollars annually toward a limited set of government-approved service providers that differ significantly from the brand-name providers that most Americans choose. This makes it harder for Lifeline recipients to discipline carriers that provide poor service by switching providers; there are fewer options to choose from, and the administrative costs associated with shifting the subsidy to a new carrier may be a barrier.

In some ways, the Affordable Connectivity Program (ACP) represents a significant improvement over Lifeline. ACP offers a \$30 per month stipend to eligible households, which is likely a more significant enticement to get low-income non-adopters online. It includes a one-time equipment subsidy, to help mitigate this separate driver of non-adoption. And it jettisons many of Lifeline's restrictions, instead allowing recipients to use the subsidy toward any commercially available broadband program. This gives low-income households greater freedom to choose the plan that best fits their family's needs.

But at the ACP's core, one finds the same fundamental flaw that infects Lifeline: It gives a monthly subsidy to a wide range of recipients based on income or participation in other federal programs, on the unproven assumption that these payments will improve broadband adoption rates among low-income families. Like Lifeline, ACP's proponents have not studied the relevant population to determine the drivers of low-income non-adoption. Instead the program paints with a broad brush, offering the stipend to any family that meets its eligibility criteria. But according to recent surveys, among families earning less than \$30,000 per year (a good proxy for ACP eligibility), 57 percent subscribe to home broadband, and 76 percent have a smartphone.<sup>8</sup> This suggests the eligibility criteria are broader than necessary to achieve the program's goal—or to put it a different way, it is likely that significant sums of money are distributed to households that are not at risk of canceling their broadband service absent the subsidy.

Of course, there are certainly households that are dependent on Lifeline and/or ACP to maintain network connectivity. As the initial ACP appropriation approaches exhaustion, it makes sense to provide additional funding as a bridge to a more sustainable and responsible low-income support program going forward.

But policymakers should use that interim period to adopt a data-driven approach to Lifeline and ACP reform. Rather than simply offering an arbitrary amount of assistance to anyone who qualifies for other forms of government assistance, the Commission should identify and survey low-income households that currently lack broadband, to identify the characteristics of these families and ascertain the barriers to adoption. With the results of this study, the agency then could design eligibility criteria that targets low-income non-adopters in particular, rather than continuing Lifeline's scattershot program of aiding all low-income households broadly. A data-driven, narrowly tailored set of eligibility criteria could go far to reduce perhaps the most significant criticism of Lifeline and ACP, namely the risk that large amounts of subsidy dollars will be spent in ways that do not actually narrow the digital divide.

Armed with study results that can better identify which families are offline, why, and how much it would take to get them online, the Commission could then design an effective subsidy mechanism. The overarching goal of a low-income subsidy should be consumer empowerment,

to narrow the purchasing power gap to allow low-income families to participate as consumers in broadband markets. To achieve this goal, the subsidy should be competitively neutral, direct, and portable. While ACP is a remarkable improvement from Lifeline on this score, ideally the subsidy would be issued directly to consumers in the form of a voucher, rather than being sent directly to the service provider. A direct voucher enhances the dignity of low-income assistance recipients by empowering them to choose the services they want, and to switch more easily if they decide a competitor is better.

### **E-Rate**

Like Lifeline, E-Rate is a program with good intentions but whose original purpose has been somewhat eclipsed by technological development, and which would benefit from additional study of its real-world effect. Originally, E-Rate sought to bring connectivity to the nation's libraries and schools, at a time when only 14 percent of schools had internet access, and most of those were via dial-up.<sup>9</sup> But by 2005, the FCC reported that nearly all schools, and 94 percent of instructional classrooms had internet access, and by 2006, 98 percent of libraries offered public internet access to patrons.

Given that this buildout mandate has largely been completed, the key question going forward is whether and how E-Rate's additional spending on technology can improve student learning outcomes. And unfortunately, the limited academic literature on this topic show mixed results. A 2019 study by economists Thomas Hazlett, Ben Schwall, and Scott Wallsten shows that E-Rate spending had no measurable effect on student SAT scores in North Carolina from 1999 through 2013.<sup>10</sup> These findings are consistent with an earlier California study showing that E-Rate spending increased the number of connected classrooms but did not translate into higher state achievement test scores.<sup>11</sup> While it seems self-evident that investment in classroom technology would yield educational improvements, further study is necessary to determine how and to what extent—and to assure that E-Rate spending is not merely displacing state or local spending that would occur even without the program.

### **High Cost Fund**

By comparison, the High-Cost Fund has navigated a more successful transition from the telephone to the broadband era. Through trial and error, the FCC has learned important lessons about the best way to subsidize network construction to unserved areas. In 2010, the National Broadband Plan recommended that buildout subsidies should focus on upfront network construction costs, where one-time investment would yield sustainable network growth.<sup>12</sup> Through the Connect America Fund, the FCC largely reoriented the High-Cost Fund in this direction and established several corollary principles that the Fund should continue to recognize going forward.

Perhaps most significantly, the Commission adopted a reverse-auction mechanism to disburse funds. This helps assure that taxpayers will get the biggest bang for their buck by awarding funds to projects that will connect the most households using the least amount of money. Then-Commission Chairman Ajit Pai explained that this design sparked competition that improved the overall efficiency of the program: during Phase II of the auction, areas that the Commission estimated would cost \$5 billion to serve were ultimately covered by a \$1.5 billion subsidy.<sup>13</sup>

Similarly, the Commission adopted a norm of distributing funds a technology-neutral basis, without favoring one method of broadband delivery over another. This is crucial, as unserved areas exhibit significant geographic diversity, making a one-size-fits-all plan difficult. A wireless solution may work well on the Kansas plains but not in the mountainous terrain of West Virginia. Traditionally, most consumers receive fixed broadband by wire. But there are natural limits on the effectiveness of wired deployment: A recent study of the history of telephony, electricity, and cable shows that wired deployment typically plateaus at roughly 70 percent of the country, which implies significant subsidies to close the remaining gap.<sup>14</sup>

In the pay television market, satellite providers such as Dish Network and DirecTV closed the gap through intermodal competition. In the broadband context, Connect America Fund Phase II's commitment to technology-neutral solutions prompted many nontraditional bidders to compete for funds, including satellite companies, wireless carriers, and electric utilities.<sup>15</sup> This intermodal competition increases the chances of finding the most efficient way of serving individual pockets of unserved consumers. And the benefits of intermodal competition are likely to increase as companies push the technological envelope through 5G development, satellite deployment, and other innovations.

### **Contribution Reform**

Finally, any review of the Universal Service Fund must encompass the prospect of contribution reform. While the Commission has taken steps over time to arrest the growth of USF disbursements, the declining pool of available revenue has caused the USF surcharge to rise, from 3 percent in 1998 to 29 percent last quarter. There is a consensus that the current approach is unsustainable. The bigger question is how to replace the current contribution mechanism.

The simplest and most elegant solution to the contribution problem is simply to fund universal service through the appropriations process. Other proposed solutions, such as a tax on broadband or edge providers, suffer from similar problems as the current methodology: they are underinclusive and encourage strategic behavior by consumers, while discouraging the very services the program seeks to subsidize. Paying for universal service from the general treasury would improve the transparency of the program and improve opportunities for congressional oversight to review program operations and minimize program inefficiencies.

Madame Chair and members of the committee, this completes my testimony. I look forward to answering any questions you may have.

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<sup>1</sup> 47 U.S.C. § 151.

<sup>2</sup> Lifeline and Link Up Reform and Modernization, 27 FCC Rcd. 6656 ¶ 25 (2012).

<sup>3</sup> Grant Thornton Public Sector LLC, Lifeline Program 2020 Program Evaluation, at 20.

<sup>4</sup> General Accountability Office, Improved Management Can Enhance FCC Decision Making for the Universal Service Fund Low-Income Program, GAO-11-11, at 42 (2010).

<sup>5</sup> General Accountability Office, FCC Should Evaluate the Efficiency and Effectiveness of the Lifeline Program, GAO-15-335, at 14 (2015) (“According to FCC officials, the commission has not evaluated the extent to which Lifeline has contributed to the narrowing of the gap in penetration rates and at what cost. As a result, FCC does not know the extent to which the narrowing of the penetration rate is attributable to the Lifeline program.”).

<sup>6</sup> See *id.* at 33.

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- <sup>7</sup> Andrew Perrin, Mobile Technology and Home Broadband 2021, Pew Research Center, June 3, 2021.
- <sup>8</sup> Andrew Perrin, Mobile Technology and Home Broadband 2021, Pew Research Center, June 3, 2021.
- <sup>9</sup> Modernizing the E-Rate Program for Schools and Libraries, 29 FCC Rcd. 8870, 8875 (2014).
- <sup>10</sup> Thomas Hazlett et al, The Educational Impact of Broadband Funding for Schools Under E-Rate, 28 *Economics and New Technology* 483 (2019).
- <sup>11</sup> Austan Goolsbee and Jonathan Guryan, The Impact of Internet Subsidies on Public Schools, 88 *Review of Economics and Statistics* 336 (2006).
- <sup>12</sup> Federal Communications Commission, *Connecting America: The National Broadband Plan*, xiii.
- <sup>13</sup> Wolters Kluwer, “Pai Announces Plan to Create Rural Digital Opportunity Fund,” April 12, 2019.
- <sup>14</sup> Brad Smith, “The Rural Broadband Divide: An Urgent National Problem That We Can Solve,” Microsoft, December 3, 2018, <https://blogs.microsoft.com/on-the-issues/2018/12/03/the-rural-broadband-divide-an-urgent-national-problem-that-we-can-solve/>
- <sup>15</sup> *Id.*