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AEI Digital Platforms and American Life Project

# Assessing Broadband Affordability Initiatives

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A M E R I C A N   E N T E R P R I S E   I N S T I T U T E

# Executive Summary

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Reducing the broadband affordability gap is a noble and important policy goal. The basic tenet of universal internet service—that the government should assist those who cannot afford basic access to the network—has long been a cornerstone of American telecommunications policy. 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. As more of our daily lives move online, it becomes increasingly important to make sure that low-income families are not shut out of the information revolution.

Unfortunately, it is far from clear whether Lifeline, the federal program tasked with getting low-income households online, actually addresses this problem. Lifeline offers a \$9.25 monthly subsidy toward broadband service for qualifying low-income households. But despite a decade of prodding by Congress and governmental watchdogs, the Federal Communications Commission (FCC) has not developed metrics to evaluate whether the program is effective. A recent independent audit concluded that “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>1</sup> while other studies suggest that much of Lifeline’s spending is likely wasted on households that are at little risk of dropping off the network.

The program is also unnecessarily paternalistic, restricting recipients in ways that likely distort communications markets. And it does nothing to address other barriers to internet adoption, such as digital literacy and equipment costs. Rather than pinpointing those Americans most in need and giving them

the resources necessary to get them online, Lifeline paints with a broad brush, spreading nearly a billion dollars annually among millions of households in the hope that some of this money will somehow help reduce the broadband gap.

The recently enacted Affordable Connectivity Program (ACP) threatens to compound Lifeline’s errors. ACP offers a larger subsidy to a bigger class of eligible recipients. While this new pandemic-legacy initiative avoids some of Lifeline’s paternalism, it replicates Lifeline’s basic design flaw of spending broadly based on untested assumptions about which households lack broadband access and why. These assumptions may or may not be true—but the government should test their validity before investing an additional \$14 billion or more in reliance on them.

The advent of ACP provides a unique opportunity to rethink our approach to broadband affordability initiatives. Rather than replicating a faulty subsidy model originally developed during the Reagan administration for landline telephones, Congress should adopt a tailored, data-driven program targeting only those low-income households that currently lack broadband service or that are at significant risk of losing access absent a subsidy. Subsidies should be competitively neutral, direct, and portable, with the goal of giving these families greater purchasing power so they can participate in telecommunications markets like any other consumer. ACP should also address other drivers of low-income non-adoption if warranted by the data. With this targeted, market-based approach in place, Congress should shutter the largely duplicative and potentially ineffective Lifeline program and alleviate the pressure that it puts on the Universal Service Fund and consumers.

# Assessing Broadband Affordability Initiatives

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The Federal Communications Commission (FCC) created Lifeline in 1985 to shield low-income consumers from the costs of regulatory changes that accompanied the breakup of the Bell telephone monopoly. During the monopoly era, the FCC cross-subsidized local residential telephone service by overcharging for long-distance and commercial service. After the breakup separated long-distance from local service, regulators were concerned that rising local telephone rates would force some low-income households to cancel their service, thus losing access to emergency services and real-time communication with friends and family.

The agency's solution was to adopt Lifeline, a monthly subsidy for low-income households that would offset the expected increase in telephone rates. Over the next four decades, Lifeline evolved with the changing telecommunications landscape, rising to \$9.25 monthly by 2012. The FCC expanded the program to wireless plans in 2008, as long as the consumer did not exceed one Lifeline subsidy per household. TracFone and other low-cost wireless providers figured out how to provide voice service for the same price as the subsidy, making Lifeline service effectively free to qualifying households. In 2016, the FCC began transitioning the program from voice service to broadband service and adopted a \$2.25 billion annual cap in an attempt to control rising costs.

Today, Lifeline serves approximately 7.3 million subscribers<sup>2</sup> (down from a peak of 17 million households in 2012).<sup>3</sup> A household is eligible for Lifeline assistance if its annual income is below 135 percent of the federal poverty guidelines or if a member of the

household participates in another qualifying assistance program, such as Medicaid, the Supplemental Nutrition Assistance Program, Supplemental Security Income, federal public housing assistance, or the Veterans Pension or Survivors Pension programs.

Eligible households receive \$5.25 monthly toward voice service or \$9.25 monthly toward broadband plans that meet the program's minimum requirements. Subsidies go directly to the subscriber's service provider, which then reduces the recipient's bill. The program is funded through the Universal Service Fund, which is administered by the Universal Service Administrative Company (USAC). The fund pays for Lifeline and three other universal services through a surcharge on interstate telecommunications revenue that is typically passed along to consumers. The fund disbursed \$854 million for Lifeline in 2020 (down from a high of \$2.2 billion in 2012).<sup>4</sup>

## Measuring Lifeline's Effectiveness

In a 2012 reform order, the FCC identified three goals for Lifeline: (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>5</sup> In other words, Lifeline's goal is—and should be—to help low-income families that would otherwise lack access get voice or broadband service in a cost-efficient fashion.

But despite Lifeline's longevity and the amount of money it disburses each year, the FCC has never shown that the subsidy has any measurable effect

on low-income adoption rates. The Government Accountability Office (GAO), which monitors federal spending and program performance, has issued at least three reports in the past decade challenging the agency to study the program's effectiveness. "Without a program evaluation," the GAO wrote in 2015, "FCC does not know whether Lifeline is effectively ensuring the availability of telephone service for low-income households while minimizing program costs."<sup>6</sup>

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When prompted, the FCC pointed the GAO to two studies that suggested the program did *not* significantly affect consumer behavior. The first found that as few as one in eight households that receive Lifeline subscribed to telephone service because of the subsidy.<sup>7</sup> This suggests that as much as 88 percent of Lifeline dollars were wasted on households at little risk of otherwise losing telephone service. The second study estimated that the subsidy increased telephone penetration rates among low-income households by only 6.1 percentage points, to 91.5 percent of total households.<sup>8</sup> Reviewing these studies, the GAO concluded that Lifeline "may be a rather inefficient and costly mechanism to increase telephone subscribership among low-income households."<sup>9</sup>

The FCC has faced similar questions following Lifeline's 2016 transition to support broadband service. Partly in response to the 2015 GAO report, the agency commissioned an independent audit of the Lifeline program. The resulting report by Grant Thornton Public Sector, published in 2020, found "there is a notable absence of a Lifeline program strategic plan" to explain how "to achieve the program's intended outcomes and measure results based on FCC-developed performance measures."<sup>10</sup> The report found it impossible to assess Lifeline's performance because the FCC had not provided an "overarching vision, associated objectives, and identified performance measures" by which to evaluate the program's success.

The FCC's recent report to Congress answered this criticism, though its response was underwhelming. To measure progress toward the goals of supporting broadband affordability and adoption, the agency proposed measuring the extent to which Lifeline and similar initiatives "are widely available and meet the broadband needs of eligible households and institutions" and measuring adoption "by examining the rate at which people who have a service available to them subscribe to that service."<sup>11</sup>

But the availability of Lifeline tells us little about its effectiveness. The program may be widely available to households that meet the program's eligibility criteria, but this statistic is unhelpful if those criteria fail to target those households most in need of assistance. At a minimum, public data suggest that the criteria are overinclusive.

USAC estimates that less than 20 percent of eligible households nationwide participate in Lifeline; in 12 states, that figure is 10 percent or lower.<sup>12</sup> Of course, this could be due to lack of public awareness about the Lifeline program. But it could also be that the income threshold or the decision to use other federal poverty programs as proxies for the target population sweeps in more households than necessary to achieve Lifeline's objectives. Indeed, with low-income household voice penetration above 91 percent and broadband penetration above 70 percent, it seems self-evident that most eligible households manage to purchase service without Lifeline's help.

The FCC also seems to assume without evidence that the stipend amount is sufficient to convince low-income non-adopters to purchase a qualifying plan. Note that the \$9.25 monthly stipend is a vestige of the era when Lifeline supported voice service. Even assuming that this amount convinced low-income households to purchase telephone service, there is no logical reason to assume that the same amount would compel unconnected homes to purchase broadband access, which is typically more expensive. Without conducting a study to determine the factors driving low-income adoption rates, the agency cannot determine whether giving \$9.25 per month to seven million households is better than, for example, giving \$46.25 per month to 1.4 million households—providing a larger stipend to a smaller number of homes in a way that better narrows the broadband gap, for the same price.

In fact, the limited data available suggest that small stipends are unlikely to affect low-income broadband adoption rates. From 2012 through 2014, the FCC conducted several pilot programs to test broadband subsidies. 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.<sup>13</sup>

The small sample size and various methodological flaws limit the conclusions that can be drawn from these data, especially since the pilot programs occurred nearly a decade ago. But while recognizing these limitations, the pilots suggest 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 FCC's earlier experience with wireless voice service, which saw participation skyrocket 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.

Finally, “examining the rate at which people who have a service available to them subscribe to that service” does not, by itself, determine whether Lifeline contributes to that subscription rate. The 2020 Grant Thornton audit made this point clear. From 2012 through 2020, the broadband penetration rate

for low-income households increased. But Lifeline participation rates decreased over the comparable period, from 36 percent in 2015 to 24 percent in 2019. Overall, the report concluded, there is “no evidence to attribute the increase in broadband penetration rate for low-income consumers directly to the Lifeline program,” and consequently the report could not determine “whether or not the Lifeline program has improved access to voice and broadband services for low-income consumers.”<sup>14</sup>

The 2019 Assurance Wireless scandal highlights the problems with determining Lifeline's effectiveness. Assurance Wireless was a Sprint brand that provided Lifeline service in several states. In 2019, as part of an investigation into potential violations of Lifeline rules, Sprint disclosed that during the preceding two years, it had erroneously claimed subsidies for nearly one million Lifeline subscribers when in fact those subscribers were not using their Lifeline service plans.<sup>15</sup> These erroneous billings reflected over 30 percent of Sprint's Lifeline customer base and over 10 percent of all the households served by Lifeline.

Most obviously, this admission showed the Lifeline system was capable of significant waste even after the FCC's 2012 order significantly overhauled the program to avoid fraud and abuse. But on a deeper level, the Assurance Wireless story challenges the FCC's goal of providing a service that “meets the needs” of Lifeline consumers. The households in question were not only eligible for Lifeline service but actually enrolled in Lifeline plans, only to abandon those plans (presumably by opting into non-Lifeline service plans instead). The revealed preference of 10 percent of the subscriber base suggests they tested Lifeline service and found it lacking, which undermines the program's value proposition.

### **Lifeline's Paternalism**

Lifeline's problems are compounded by its paternalism toward recipients. The program significantly restricts eligible households' use of the service. Lifeline subscribers cannot use the subsidy toward just any voice or broadband plan in the marketplace, but

instead may choose only from a limited menu of companies that have been designated as eligible telecommunications carriers. Any service plan they choose must meet the minimum service criteria established by the commission. As noted above, the subsidy is not given to the recipient but is instead paid directly to telecommunications carriers, which then provide a bill credit to Lifeline subscribers.

Admittedly, there are good reasons why the commission only allows Lifeline dollars to be used on certain plans from certain carriers. The minimum service requirements help make sure that Lifeline customers receive what the agency considers to be adequate service. And limiting the program to only eligible telecommunications carriers helps limit waste, fraud, and abuse by making sure that participating companies agree to Lifeline rules.

But this paternalism can have deleterious effects. At the margin, these restrictions distort telecommunications markets. Instead of opening the entire marketplace to Lifeline subscribers, Lifeline steers millions of customers and nearly a billion dollars annually to a limited set of government-approved service providers that differ significantly from the brand-name providers that most Americans choose. It further reduces the agency of Lifeline households by giving the subsidy to the carrier rather than placing it directly in the hands of consumers. This makes it harder for Lifeline consumers 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 deter switching.

These effects are particularly noticeable when compared to private efforts to narrow the digital divide. The most successful of these is Comcast's Internet Essentials program, which offers 5 Mbps home internet plans to low-income households for \$9.95 per month. As with Lifeline, customers are eligible if they qualify for certain federal antipoverty programs and live in a Comcast service area.

Over the past decade, Internet Essentials has provided internet service to 10 million low-income households. Economist George W. Zuo estimates that Internet Essentials has increased home internet use

by low-income households in Comcast's service area by roughly 8 percentage points.<sup>16</sup> Internet Essentials is serving Lifeline's overall purpose—and with no assistance from Lifeline, as Comcast is not an eligible telecommunications carrier.

The FCC's minimum service requirements also reflect paternalistic judgments about what services Lifeline recipients should receive, which may be at odds with the needs of a heterogeneous subscriber base. One sees this effect in the commission's 2016 decision to phase out its popular subsidy for stand-alone voice service.

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In 2019, the subsidy for voice-only service was reduced from \$9.25 to \$7.25 per month and was reduced further to \$5.25 per month in December 2020. That subsidy was scheduled to be reduced to \$0 in most cases in 2021, though the commission temporarily suspended that reduction after significant negative feedback. The 2016 order also adopted a phased increase in the minimum level of broadband service required to receive the subsidy, though this too was later amended by popular demand.

Unsurprisingly, each reduction in voice-only service prompted large numbers of subscribers to switch to plans that included broadband. But roughly 10 percent of Lifeline users still subscribe to voice-only service today. One can imagine a variety of customer profiles that might be interested in voice service but not a presumably more expensive broadband plan—for example, impoverished senior citizens who do not use the internet but rely on telephone service to connect with family and friends. Forcing these participants into broadband plans—and then increasing the minimum amount of broadband service required for

eligible plans—can drive up consumer out-of-pocket costs and may reduce Lifeline participation rates. Partly for this reason, the commission’s recent report on the state of the Universal Service Fund recommends a rulemaking proceeding to address whether to reverse the phaseout of voice-only subsidies and revisit the program’s minimum broadband service standards.

### **Next-Generation Low-Income Assistance: The Affordable Connectivity Program**

The COVID-19 pandemic brought sweeping new changes to the federal government’s low-income telecommunications assistance programs. Pandemic-related lockdowns moved many activities online, which raised concerns about low-income families that struggle to afford adequate broadband service. In response, Congress included a new \$3.2 billion Emergency Broadband Benefit (EBB) program as part of its pandemic relief package. The EBB provided a \$50 monthly subsidy to help pay for broadband service for low-income households and certain other qualifying families.

In late 2021, the Infrastructure Investment and Jobs Act allocated an additional \$14 billion toward a modified, permanent EBB program and rechristened it the Affordable Connectivity Program (ACP). While somewhat less generous than the temporary EBB initiative, ACP represents a significant expansion of the benefits available under Lifeline. ACP offers a larger subsidy—\$30 per month—to a wider range of potential recipients.

A household is eligible for ACP benefits if its income is less than 200 percent of the federal poverty guidelines or if a member of the household participates in one of eight other federal antipoverty initiatives. In addition to the five programs that qualify for Lifeline, ACP offers assistance to those enrolled in the Special Supplemental Nutrition Program for Women, Infants, and Children; those enrolled in the National School Lunch Program; and those who received a federal Pell Grant during the preceding year.

In some ways, the ACP reflects a significant improvement over Lifeline’s paternalism. ACP jettisons the eligible telecommunications carrier restrictions, instead allowing recipients to use the subsidy toward any commercially available broadband program. Recipients thus have greater freedom to choose the plan that best fits their family’s needs. The program also offers a onetime \$100 credit per household toward the purchase of a laptop, tablet, or desktop computer, which addresses an additional barrier to broadband adoption that Lifeline ignores. And as a line item in the federal budget, it is subject to the traditional appropriations process (and direct congressional oversight) rather than the opaque and increasingly unstable Universal Service Fund.

But at the ACP’s core, one finds the same fundamental flaw that fatally 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. Given that well over 70 percent of ACP-eligible households already subscribe to broadband service, giving \$30 per month to such a wide swath of recipients makes it likely that significant sums of money will be wasted on households that are not at risk of canceling their broadband service.

Admittedly, one may argue that it is difficult to design eligibility criteria that pinpoint only those households that lack broadband service or that are at serious risk of losing access. This argument suggests that existing federal eligibility programs are a good enough proxy for broadband non-adopters that the administrative convenience of piggybacking off other agencies’ eligibility determinations outweighs the cost of these wasteful payments.

But given the tremendous amount of money at stake—a \$14 billion initial appropriation for a permanent entitlement that offers triple the Lifeline subsidy to an even broader swath of the populace—the burden should be on the program’s proponents to show that these funds are being spent efficiently. At a

minimum, ACP proponents should prove, rather than simply assume, that these payments are likely to measurably narrow the broadband gap—especially if ACP benefits are cumulative with Lifeline for households that satisfy both programs' eligibility criteria.

Of course, one could also argue that low-income families generally face significant economic challenges, so providing a \$30 monthly subsidy is justified whether the money is used to acquire broadband service or whether it frees up funds to be deployed elsewhere in the family budget. But under this formulation, the need to close the broadband gap is primarily a fig leaf to justify a \$30 monthly transfer to any low-income family that asks for it. This argument makes ACP not a key component of tech policy, but instead simply a welfare initiative—and one might then ask why \$30 per month rather than \$50 or \$100, and why not just make the transfers automatic rather than relying on eligible families to undergo the charade of registering for a broadband benefit. If the primary goal is not to narrow the broadband gap but to redistribute resources to low-income families, there are simpler and more transparent methods of doing so.

### **Designing a Better Low-Income Assistance Program**

Despite these concerns, ACP represents a once-in-a-generation opportunity for meaningful reform to federal broadband affordability policy. Congress is focused on this issue for the first time since 1996, and its purpose—to help impoverished households get online—is a noble goal. With careful study and some minor legislative tweaks to the existing statute, ACP could avoid duplicating the efficiency and effectiveness problems that have long plagued the Lifeline program.

First, policymakers should adopt a data-driven approach to subsidy distribution. Rather than simply offering an arbitrary amount in assistance to anyone who qualifies for other forms of government assistance, the FCC should identify and survey low-income households that currently lack broadband, to identify these families' characteristics and

ascertain the barriers to adoption. With the results of this study, the agency then could design eligibility criteria that target 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 toward answering perhaps the most significant criticism of Lifeline and ACP—namely, that they risk squandering large amounts of subsidy dollars on households that would have bought internet access even without the subsidy.

Also important, this study should critically examine both the magnitude of the broadband adoption problem among low-income households and whether affordability or other factors are the biggest drivers of non-adoption. According to the Pew Research Center, broadband adoption rates for low-income families continue to climb, and the gap between the low-income adoption rate and that of the general public is narrowing.<sup>17</sup> A decade ago, only 46 percent of households making less than \$30,000 per year had a broadband internet connection at home, compared to 69 percent of those households in the next income tier, earning \$30,000 to \$50,000 annually—a gap of 23 percentage points. By 2016, that gap had narrowed to 18 percentage points, and as of 2021, it was down to 17 percentage points.<sup>18</sup> Fifty-seven percent of households in Pew's bottom tier have broadband connections at home. If one includes both those with broadband at home and those who lack broadband at home but have smartphones, this figure rises to 84 percent—only 9 percentage points less than the next income tier.<sup>19</sup>

Perhaps more interesting is why non-adopters do not have home broadband. Among all non-adopters, 20 percent state that the biggest reason they do not have broadband access at home is the monthly cost of service. This is the most common reason given, but this figure is down from 33 percent in 2015. The second most common reason, at 19 percent, was that the smartphone does everything they need. Nine percent cited availability, and 7 percent cited the cost of a computer. Interestingly, 71 percent of non-broadband users report that they are not interested in having high-speed internet access at home.<sup>20</sup>

These results suggest that, while monthly plan affordability remains a big driver of non-adoption nationally (and likely even bigger among low-income families), ACP is right to include an equipment subsidy as well, to help overcome the equipment barrier. It also means that a successful program to boost adoption should also include funds to promote broadband availability and digital literacy, to bring broadband to those who cannot get it or are uninterested, respectively.

Armed with study results that can better identify which families are offline, why, and how much it would take to get them online, the FCC 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.

ACP is a remarkable improvement from Lifeline on this score, as it permits consumers to use the subsidy toward most commercially available broadband services. But 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.

Finally, with a better-tailored ACP program to help close the low-income broadband gap, Congress should shutter the Lifeline program. ACP is a more flexible program that provides low-income families a larger stipend that is more likely to make a difference in a family's decision whether to subscribe to broadband service. And it is administered on-budget with a level of transparency and oversight that is lacking with Lifeline. As my colleague Thomas M. Johnson Jr. has noted as part of the AEI Digital Platforms and American Life project, the Universal Service Fund's

contribution mechanism has long been unsustainable, which jeopardizes the financial stability of all four programs that the fund supports.<sup>21</sup> Relieving the fund of the obligation to pay for Lifeline, a costly, redundant program that has never proven its effectiveness, would be a step in the right direction.

## Conclusion

As an increasing amount of daily life moves online, we must narrow the digital divide by getting broadband access to those low-income households that currently lack it. Unfortunately, Lifeline is unlikely to help achieve this goal. ACP could be a better solution for low-income non-adopters, but Congress must be careful not to replicate Lifeline's fundamental flaw of assuming without proof that giving an arbitrary amount of money to a broad swath of low-income households will efficiently reduce the broadband gap in a meaningful way.

Policymakers should study low-income non-adopters to develop more targeted, narrow eligibility criteria and then issue competitively neutral vouchers directly to qualifying households. They should also think holistically about other drivers of broadband non-adoption, such as digital illiteracy, that may also contribute to the decision not to purchase internet access. A comprehensive, data-driven, market-based approach is more likely to narrow the digital divide and empower low-income households to participate as consumers in the market for telecommunications.

## About the Author

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