

# Accelerating America

AFFORDABILITY | ADOPTION | ACCESS

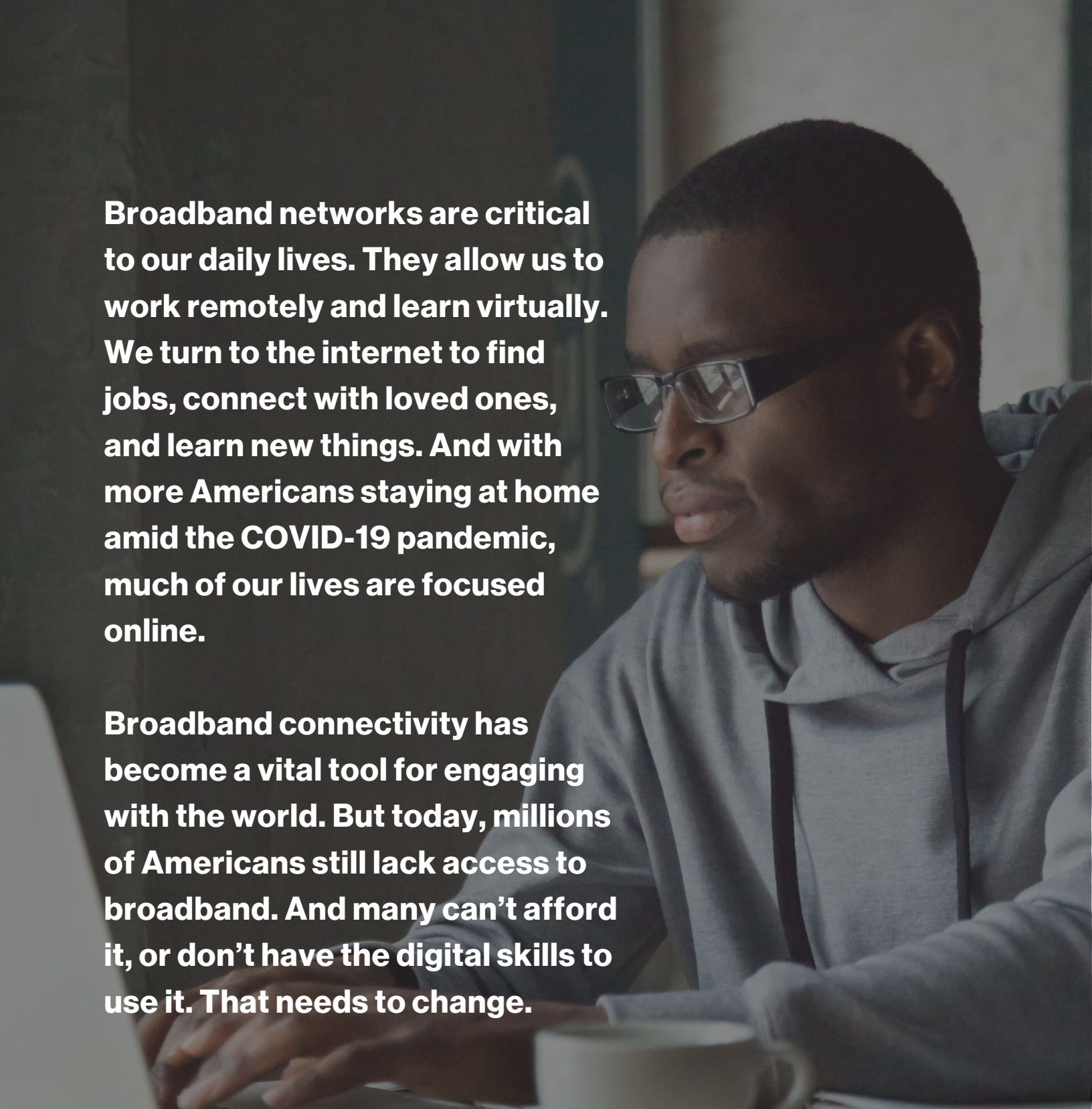


verizon<sup>✓</sup>



# Table of Contents

<b>Introduction and Executive Summary</b>	03
<b>A Plan to Address Affordability</b>	08
Lifeline’s Historical Context	09
A New, and Better, Approach to Support Low-Income Constituents	10
Eligibility	11
Verification of Eligibility	11
Benefits Coverage	12
Provider Participation and Obligations	13
Amount and Application of Benefit	14
Distribution of Benefit	14
Funding Source	15
Program Administration	15
Transition	15
Affordable Broadband for Students	16
<b>Adoption, Digital Inclusion, and Literacy</b>	18
Supporting Grants for Increased Digital Literacy Education	19
Ensuring Government Services are Online and Mobile-Accessible	20
<b>Increasing Access to Broadband</b>	22
Rural Broadband Funding	22
Municipal Broadband	25
<b>Conclusion</b>	26
<b>References</b>	27



**Broadband networks are critical to our daily lives. They allow us to work remotely and learn virtually. We turn to the internet to find jobs, connect with loved ones, and learn new things. And with more Americans staying at home amid the COVID-19 pandemic, much of our lives are focused online.**

**Broadband connectivity has become a vital tool for engaging with the world. But today, millions of Americans still lack access to broadband. And many can't afford it, or don't have the digital skills to use it. That needs to change.**

**Our country can and should do better.**



The public health crisis has underscored not only how important broadband connectivity is but also how lack of access can reinforce and widen educational and economic disparities. Low-income communities, rural populations, and working families who lack broadband risk falling further behind. As learning has shifted online, students without internet access at home may struggle to keep up. Adults in communities without internet access may not be able to search and apply for jobs; work remotely; start businesses; or access educational, social, and other resources needed to thrive in the digital economy.

**Verizon is committed to ensuring that all Americans have access to affordable broadband and are equipped with the skills to use it.**

We're proud to provide the connectivity that's keeping tens of millions of Americans educated, employed, and informed. From the start of the COVID-19 pandemic, we've supported unprecedented levels of demand as businesses, schools, and other organizations transitioned to remote work and schooling. We've worked with other companies and nonprofits to help support discounted broadband plans that cover 38 million students in 40 states and the District of Columbia. We also created a discount on Verizon's Fios home broadband service for customers qualifying for the FCC's Lifeline program that allows those customers to purchase a 200/200 Mbps fiber service with no data caps for just \$19.99/month. And we just announced that we will continue to offer this discount in 2021. We've also expanded our education initiative targeting Title I schools, Verizon Innovative Learning, to more than 260 under-resourced middle schools and high schools, providing free internet access and free STEM education tools.



**But solving our nation's broadband challenges also requires a strong commitment from government.** Congress has taken some important steps by passing the Emergency Broadband Benefit as part of its recent COVID Relief Package. As encouraging as that support is, it's a temporary program that is set to expire after the end of the public health emergency. That's why Verizon supports coordinated government and private sector action to create a modern and permanent broadband benefit. Programs like Lifeline and the Connect America Fund (CAF) have delivered tremendous benefits, greatly expanding public access to technologies. But these programs on their own do not do enough to close the broadband gap.

**It's time to think differently. Verizon is proposing a new approach that we call "Accelerating America: Affordability - Adoption - Access."**

---

Building on the work of many others in this space, the policies we propose will help ensure all Americans have access to affordable broadband. Congress and the administration can take important steps to address these challenges, working with state and local public officials, nonprofits, and industry.

## Affordability

To make broadband more affordable, as an alternative to Lifeline, Congress should create a permanent broadband benefit program of \$20-\$50 per month for low-income recipients that will maximize people's ability to choose the services that work best for them.

**Program Eligibility.** People who are eligible for Lifeline can elect to receive the new monthly benefit (or they may choose to remain in the existing Lifeline program).

**Broadband Benefit.** Eligible households would receive \$20-\$50 per month on an electronic benefit transfer card that they could use toward any qualifying wireline or wireless service or split between both. Participants would also be eligible for a biannual equipment benefit.

**Choice.** Recipients could choose whatever plans, services, or equipment meets their needs and would not be limited to predetermined narrow offerings. Customers using their benefit would pay for services using their card, just like any other customer uses a debit or credit card.

**Federal Funding.** Benefits would be funded directly by appropriations and automatically placed onto electronic benefit transfer cards similar to those that people already may have access to as part of the Supplemental Nutrition Assistance Program (SNAP) or other government benefits.

**Enrollment.** Eligible participants who elect to use the new broadband benefit instead of the traditional Lifeline program would be automatically enrolled once they complete a simple registration process and are verified using the National Verifier database. Government agencies should coordinate so that recipients of SNAP or other qualifying programs automatically receive information about the broadband benefit.

**Maintaining Lifeline.** Eligible customers who feel more comfortable using the existing Lifeline program could continue with Lifeline instead of selecting the new benefit.

---

## Adoption

To encourage broadband adoption, the federal government should support digital literacy education. In addition, local and municipal governments should encourage greater broadband use by making it easier for people to access the government services they need online.

**Digital Literacy.** Even people who have access to broadband may not have the digital skills necessary to learn, work, and communicate effectively online. The federal government should support local, state, and nonprofit organizations that provide digital literacy training and education.


**Modernizing Municipal Systems.** Governments, particularly local and municipal ones, should update their systems and websites to enable constituents to access information online and via mobile devices. Federal funds may be critical to help states and localities modernize their systems and technologies to enable constituents to interact electronically (as opposed to hand-filing, faxing, or mailing documents or forms).

## Access

To expand broadband deployment, Congress could provide new support to build broadband in areas where the economics fail to support private deployment.

**New Allocations.** Congress and possibly states should provide new appropriations to fund broadband expansion, particularly in rural or hard to reach areas.

**Municipal Broadband.** Municipalities should not be prohibited from building broadband in unserved and unlikely to be served areas. While it doesn't make sense for municipalities to overbuild areas where broadband providers are already offering or planning to offer service, there may be unserved areas where a targeted municipal approach is a useful tool. In some instances, public-private partnerships to build broadband facilities may also be a good option.



**It's time for  
a national  
effort to  
deliver  
affordable  
broadband  
to all  
Americans.**

**Closing the digital divide will drive innovation and  
productivity, lift communities, and strengthen our nation.**

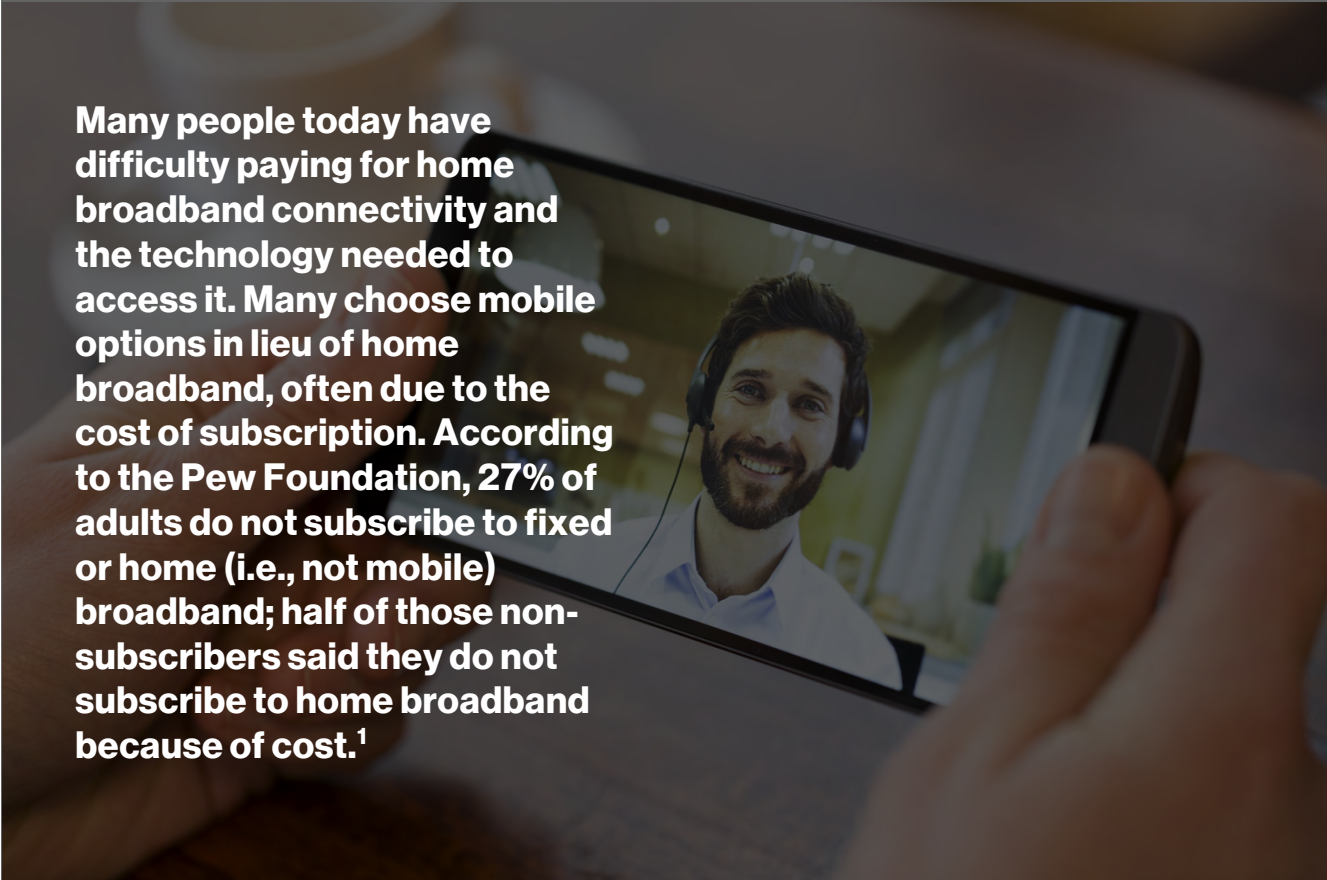
Find out more at [Verizon.com/AcceleratingAmerica](https://www.verizon.com/acceleratingamerica)

**verizon**<sup>✓</sup>

---

Below we flesh out more of the details of this new framework to connect all Americans:

## A Plan to Address Affordability



Many people today have difficulty paying for home broadband connectivity and the technology needed to access it. Many choose mobile options in lieu of home broadband, often due to the cost of subscription. According to the Pew Foundation, 27% of adults do not subscribe to fixed or home (i.e., not mobile) broadband; half of those non-subscribers said they do not subscribe to home broadband because of cost.<sup>1</sup>

While Lifeline continues to serve an important role for many people, it can't be the only solution to ensure full digital empowerment in the long-term. Rooted in a decades-old funding framework, it simply can't be tweaked in enough ways to address the underlying issues comprehensively.

**Instead, we propose supplementing Lifeline with a directly appropriated individual benefit as an alternative that eligible recipients can use to pay for broadband service.**

Recipients of a government-funded broadband benefit should have maximum choice in how to use their broadband dollars, whether they want it for wireline or wireless service (or both). To provide that level of flexibility and choice, we propose a program framework that empowers people by directly giving them, rather than broadband providers, a new broadband benefit. Congress retained the traditional reimbursement structure, which gives broadband providers – not individuals – the broadband benefit in its recent emergency broadband benefit program. While that structure may make sense in the context of an emergency like COVID-19, a long term permanent program that provides benefits directly puts vulnerable citizens in the best position to select the services that meet their needs.



## Lifeline's Historical Context

The federal government has long sought to ensure “universal service,” or the “idea that communication services should be available ‘so far as possible, to all the people of the United States.’”<sup>2</sup> To achieve that goal, Congress and the Federal Communications Commission (FCC) have created several programs within the Universal Service Fund (USF). Of the USF programs, the Lifeline program most directly addresses the affordability of communications services. But Lifeline was not designed as a broadband program. The FCC created the Lifeline program as a voice program over thirty years ago, in the mid-1980s, as part of the complex regulatory changes that followed the AT&T divestiture. The Lifeline program was originally designed to offer limited relief to low-income customers so they could better afford “plain old telephone service” for voice communications. Although the FCC in 2016 added broadband to the program,<sup>3</sup> Lifeline remains rooted in a now-outdated market and policy structure.

In particular, the federal Lifeline benefit amount, \$9.25 per month, was not set to ensure broadband affordability. Rather, the \$9.25 amount still reflects the original mid-1980s concept of the Lifeline benefit as an offset to a federal voice charge, the “subscriber line charge.”

**The current Lifeline subsidy is insufficient.** Lifeline households must use their limited benefit for either mobile or for a fixed connection. That limited benefit isn't enough for a family who needs both mobile access and a robust connection at home for kids' remote learning. Most Lifeline households use their Lifeline benefit for a mobile service that provides 4.5 gigabytes (GB) of usage per month.

Moreover, the structure of the Lifeline program does not do enough. People may face hurdles in getting signed up even if they are eligible, delays in receiving their benefit, or finding services that meet their needs. And they have only limited choices in providers. Today there are complicated regulations mandating record keeping and document productions, multiple annual audits, and more. Because of the complexity of the Lifeline rules, many of the largest broadband providers in the nation have declined to participate in the program.

Finally, the funding mechanism for the Lifeline program is unsustainable as the only program available for low-income recipients. The 1996 Act requires that the USF is to be funded by assessments on interstate and international telecommunications services.<sup>4</sup> Each quarter, the FCC calculates a “contribution factor” based on the projected demands of the universal service programs and the projected contribution base. That contribution mechanism has become strained by changes in technology and demand. Usage of interstate telecommunications services has been in decline since the turn of the century as people move to alternative forms of communications, including texting, social media, and video calling apps. This decline requires the contribution factor to increase each year, as the GAO report on Lifeline explains:

“According to FCC’s 2012 Further Notice of Proposed Rulemaking regarding the assessment and recovery of USF contributions, an impetus for the increased USF contribution factor is the decrease in assessable revenues. For example, competition in the interstate long-distance market, growth of wireless service, and bundling of service packages has led to decreases in assessable revenues. As the pool of contributors and assessable revenues has declined over the years, the USF contribution requirements for those remaining contributors has increased to cover the costs of administering the universal service programs.<sup>5</sup>”



**It's time for a new approach. Rather than tinker with Lifeline, which can continue as an alternative for low-income customers who prefer it, we should broadly rethink how to address broadband affordability to provide a much more useful option.**

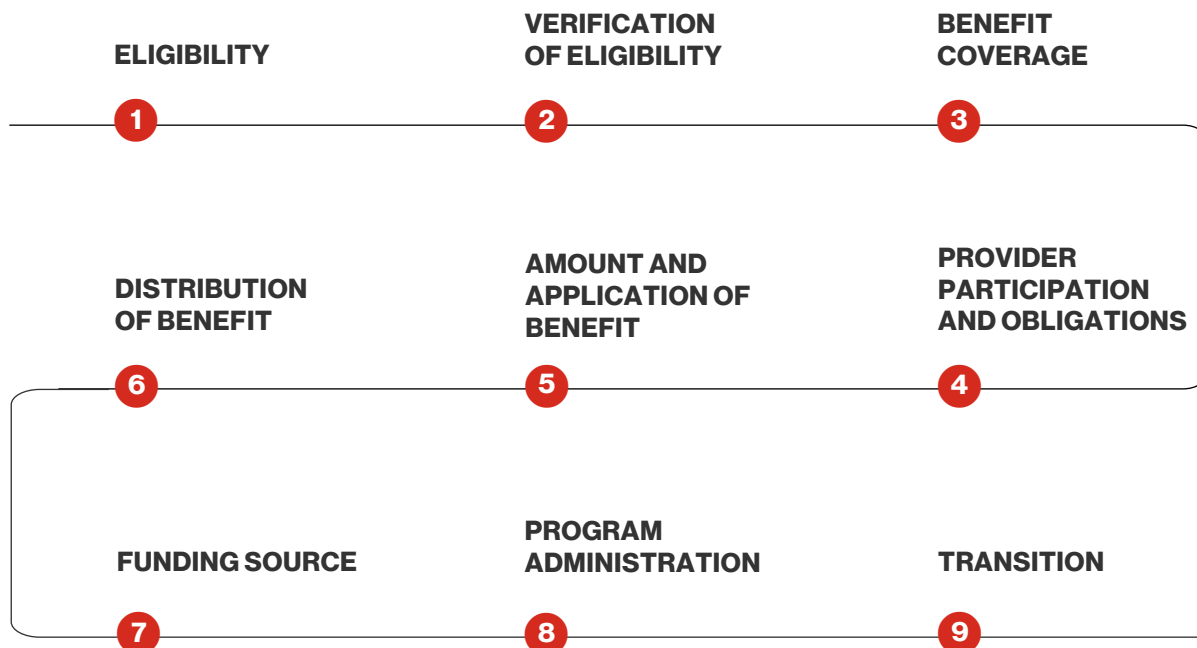
## A New, and Better, Approach to Support Low-Income Constituents

It's time to create a new program that will supplement Lifeline to sustainably address the needs of our most at-risk communities. Congress should create a direct appropriation that recipients can use to pay for the broadband service of their choice.<sup>6</sup> People should have maximum choice in how to use their broadband dollars, whether they want it for wireline or wireless service (or both). And rather than a complicated or burdensome signup process, the benefit should have a simple registration process and take the form of a benefit that the government would distribute on an electronic benefit card that recipients could use to purchase the broadband plans and options that work best for their families.

The new broadband benefit would allow people to choose any broadband or broadband/voice bundle that meets the minimum criteria established by the FCC. Depending on the level of the benefit Congress ultimately appropriates for this new program, people may be able to choose basic services at a very low or even no out-of-pocket cost or pay the difference between their benefit and a more expensive plan with more options. This approach empowers constituents to choose how best to use the benefit to meet their needs.

People, even and especially those who are receiving benefits, deserve the right to make the best choices for themselves and their families. Rather than forcing them into specific "low-income" plans, the broadband benefit should empower them to select the plans and services that best fit their individual needs.

Below, we walk through the components of our proposal.



## 1 Eligibility

At a minimum, the new benefit must include those currently eligible for Lifeline benefits. Today, that includes people participating in any of the following programs: federal public housing program, Medicaid, Veteran's or Veterans Survivor's Pension, SNAP, Supplemental Security Income, or certain Tribal Programs (i.e., Bureau of Indian Affairs General Assistance, Head Start, Tribal Temporary Assistance for Needy Families, or Food Distribution Program on Indian Reservations).<sup>7</sup> Additionally, people qualify for Lifeline if their household income is at 135% or less of the federal poverty guidelines, which includes those in school free lunch programs. Depending on the availability of funding and the demands of the COVID-19 pandemic, Congress may also consider extending broadband benefits to families with children who are eligible for reduced lunch (free lunch recipients already qualify under the income guidelines).

As noted below, Congress would permit the FCC to use the National Verifier database to determine whether a household is eligible. Congress should ensure that relevant state and federal agencies provide the National Verifier with automated access to eligibility information. The benefit would be provided automatically to an eligible household once the household is enrolled in SNAP or another qualifying social service program and fills out a simple registration. The benefit would stop being loaded on the Electronic Benefits Transfer (EBT) card when a household no longer qualifies as eligible under SNAP or another qualifying social service program.

## 2 Verification of Eligibility

The government, not individual carriers, should determine whether a household is eligible for the new program. Eligibility should be determined using the National Verifier, which is a centralized system that determines whether subscribers are eligible for Lifeline. Centralizing verification enables customers to have a single point of contact to confirm eligibility, rather than having to re-assess or re-qualify every time a customer wishes to change providers or shop for different options. It also simplifies the process for providers, allowing them to treat a subsidized customer just as they would any other customer. When accepting payment via a provided EBT card, a provider would not have any obligation to determine whether a household is or is not eligible.



### 3

## Benefit Coverage

### Monthly Service Benefit

The service benefit would be distributed monthly to help eligible households pay for the fixed or mobile broadband service of their choice, provided the service meets the FCC's Lifeline minimum service standards.

First, Congress would set the per-household service benefit amount at a much higher level than the current Lifeline amount, perhaps in the range of \$20-\$50 per month, which would be sufficient to cover all or most of the cost of a home broadband service that supports distance learning and working from home. And since the number of people covered and the total cost of the program may vary depending on what Congress ultimately decides, Congress should also explore whether the benefit amount should vary depending on such factors as household size, household income, or school-age children in the household.

Supported households that elect this program would be able to use their benefit for any qualifying service on the market, including unlimited broadband service, either fixed or mobile, and may even apportion their benefit between multiple services. If the price of the service(s) exceeds the amount paid by the program, the household would be responsible for paying the difference. Households could use their benefit for a broadband-only or bundled service (as long as the bundle includes a qualifying broadband service). Further, a benefit could be split between more than one service or service provider to account for situations where a household wants to use part of their benefit for mobile service from one provider and part of their benefit for fixed service from a different provider.

Providers may, but are not required to, create a new or separate low-income qualifying broadband plan targeted to eligible customers. Customers may choose such a targeted plan, if it exists with their chosen provider, or may select to direct their benefit to any other eligible plan. In both cases, customers would use the benefit amount to pay all or a portion of the total charges for service. Because the benefit is available for use on any plan that contains a qualifying broadband service, providers would not be required to apportion the benefit between various services on the plan. Instead, providers would apply the benefit as a credit to the bottom of the bill (inclusive of taxes). This means that people would quickly have more options from which to choose and would not be relegated to purchasing only a single, low-cost service offering with this new benefit.

To increase awareness of the new broadband benefit, the Food & Drug Administration (FDA), the Department of Health and Human Services (HHS), and FCC should adopt a memorandum of understanding that would provide recipients of SNAP/Medicaid (and, if expanded to include them, those with children eligible for reduced cost school lunch) with information about broadband benefits at the same time they learn about these other programs. Recipients need to be able to quickly and efficiently obtain information about how to sign up for and receive low-income broadband support, and verification for eligibility needs to be seamless.

### Equipment Benefit

Congress should include as part of this program a separate benefit that covers equipment as well as services. That equipment benefit would help pay for a device necessary to access the network, such as a tablet or wireless device. The equipment benefit should be distributed as a lump sum once every two years, and should be in an amount sufficient to cover the cost of a basic wireless device or wireline router (which, based on current market data, would be about \$200). Households would be permitted to use the equipment benefit to purchase a device or, alternatively, use the benefit to pay monthly equipment charges such as wireless device payments or router rental charges.

**4****Provider Participation and Obligations**

Our proposal contemplates participation by a large number and range of broadband providers (including both prepaid and postpaid providers) to encourage competition and enable people to comparison shop for plans and services that best meet their needs. Broadband providers shouldn't need to be an Eligible Telecommunications Carrier (ETC)<sup>8</sup> to provide broadband service to benefit recipients. Because this proposal would permit providers to treat qualifying recipients just as they treat other customers, there is no need for the provider to meet ETC requirements so long as they are offering a qualifying service. As AT&T observes, grocery stores are authorized to participate in SNAP via an online application that demonstrates they sell the eligible food staples.<sup>9</sup> There is no reason why participation as a broadband service provider needs to be any more complex.

Participation would be optional for all carriers, including those who are currently designated as ETCs. But the program should be designed to encourage provider participation. Providers would apply to the FCC to participate in the program. A provider would have to show in its application information that it has offered a qualifying broadband service for at least one year, e.g., FCC Form 477 filings. Both facilities-based providers and resellers would be eligible. To be eligible, fixed broadband service should meet the FCC's definition of broadband at 25/3.<sup>10</sup> Because benefits would be provided directly to people (rather than to providers, as in the Lifeline or emergency broadband benefit programs), providers would treat supported customers the same as other customers.

Providers' primary obligation would be to ensure that the benefit is applied to eligible services and devices, including bundles that offer broadband or voice service. Providers would be permitted to apply the same terms and conditions to supported customers as to other customers, including credit and disconnection policies. However, providers may provide additional flexibility for customers with arrearages that pre-date the new program if they choose to do so.

Customers who choose services for which the total cost is greater than the amount of the benefit would pay for the difference, and all existing terms and conditions for any selected services will continue to apply. Providers may treat customers who do not pay any portion of the difference the same as they treat any other customer who does not pay part of their bill, including enrollment in payment plans, referral to collections, and possible termination. Providers may also choose to work with a customer to switch a customer to their lowest price broadband offering that is at or below the amount of the benefit, to the extent the provider offers such a service, and the customer agrees.

## 5

## Amount and Application of Benefit

Congress should set the amount of the benefit significantly higher than the current \$9.25 per month and should provide substantially more flexibility. **Customers need the ability to choose which services best fit their needs.** Some people may have children who need higher speeds for remote learning; others may need additional wireless data. And some may need both mobile and fixed broadband and want to split their benefit between these services. The program would give recipients the flexibility to use the benefit for fixed broadband services, mobile broadband services, or a combination of the two. Individuals and households are best able to decide what services meet their needs, and the ability to shop between providers incentivizes providers to compete for their business.

**To maximize people's ability to get connected, the new broadband benefit should be in the range of \$20-\$50 monthly per household,** which is significantly more than the current Lifeline subsidy amount. The specific amount will depend on Congress' assessment of empirical data about what eligible low-income people may realistically be able to pay for broadband and its evaluation of how to allocate money between competing funding priorities. Congress could also consider applying a sliding scale to the benefit, adjusting the amount provided in accordance with income levels.

## 6

## Distribution of Benefit

**Broadband benefits need to be quickly and easily usable by recipients.** And adoption will be faster if providers do not have to create new systems to verify eligibility of recipients or to process new types of payment. As noted above, any new or expanded broadband program should make use of the existing national verifier system.<sup>11</sup>

**Using the broadband benefit should be simple.** The program should be based on an existing or a similar benefit card system, so that providers may process payments for broadband benefits just like they do other credit or debit cards. Today, persons who qualify for SNAP or cash benefits (Temporary Assistance) receive an Electronic Benefits Transfer (EBT) card, also known as a Common Benefit Identification Card (CBIC). The EBT card looks like a debit card and enables users to buy groceries and other items with their cash benefits at participating stores and other locations. Funding for broadband and for any associated transaction fees could be added to the card (or a parallel card issued) directly from the government, with funds transferred directly from the FCC to the cards every month. A debit or other electronic benefit card could also encode controls against fraud and abuse, and help streamline auditing and recordkeeping. Benefits would be reloaded automatically as long as the person remains eligible.

## 7

### Funding Source

As discussed above, Lifeline is today funded by assessments on carriers that are ultimately paid by telecommunications customers. Today, the contribution factor is 31.8% of interstate and international telecommunications revenues, which are shrinking more and more every year.

**This system is unsustainable as the primary low-income program; it cannot support a substantial increase in subsidies.**

The solution is not just to change the way that universal service contributions are assessed, which is not only incredibly complex but will take years. How Lifeline is funded necessarily limits how much of a subsidy it can provide. The best solution is for Congress to appropriate the funding for the new benefit program directly – the way Congress funds most other social programs. This approach would solve the problem of a declining contribution base and allow the program to provide a more generous subsidy. Congress can appropriate the funds, which would then go into the FCC’s accounts for distribution.

## 8

### Program Administration

The program would be administered by the FCC, with appropriations going to the FCC and processed through FCC and USAC. The FCC would be responsible for defining the broadband services eligible for support, approving providers to participate in the program, identifying eligible households, and managing the distribution of benefits. The FCC would also define rules governing implementation and the process by which customers who choose the new program phase out of Lifeline benefits (customers could elect to remain with Lifeline if they prefer).

The FCC would be permitted to enter into agreements with other agencies to potentially help distribute the benefit, e.g., via HHS or with the Department of Agriculture. For example, the FCC could partner with those agencies to possibly distribute the broadband benefit on the same EBT card used for SNAP benefits.

## 9

### Transition

Congress should create the new benefit program as an alternative, and leave Lifeline in place as an option for low-income customers. If Congress does that, no transition period is necessary beyond what may be needed for customers to transfer to the new program. If Congress eventually decides to meld the programs, it should ensure a transition of at least a year or the expiration of any existing service contract, in which new potential recipients could be started under the new benefit while giving existing Lifeline subscribers time to sign up for the new benefit and transition to new plans and services. The transition would not penalize subscribers who relinquish their existing Lifeline benefit in lieu of the new one and would ask providers to waive any early termination fees if the subscriber transitioned to a new plan with their same provider in accordance with existing terms and conditions. Further, recipients could use the new equipment benefit either as a payment toward an existing device or toward a new one.

---

## Affordable Broadband for Students

# All students should have affordable access to devices and broadband outside of school, at home, and in other settings.

Even before the COVID-19 crisis caused schools to turn to distance learning, broadband access was important for students to complete their schoolwork; today many students cannot continue learning without it. As FCC Commissioner Rosenworcel has identified, there is still a Homework Gap in the United States: a disconnect that occurs when students are assigned homework that requires internet access, but do not have broadband at home.<sup>12</sup> And while providers like Verizon are working to deliver broadband to these students, federal funding must continue to play an important role in ensuring broadband access for all students.

Prior to the pandemic, Verizon had been working for a number of years to equip low-income students with the skills they need to compete in a digital economy. Through our Verizon Innovative Learning (VILS) program, we provide free technology, free internet access, teacher training, and a technology-infused learning curriculum to under-resourced Title I middle schools and high schools across the country.<sup>13</sup> To date, close to 265 schools have joined the VILS program since 2014, and we plan to reach 350 schools by the end of 2021. When the pandemic hit in March, we tripled the data allowance for participants in VILS schools by upgrading their data plans from 10GB/month to 30GB/month to ensure that VILS students had the additional capacity to transition all of their school work to the home during quarantine.



## 10 million youths by 2030

Through Citizen Verizon, our plan for economic, environmental, and social advancement, we have committed to provide 10 million youths with digital access and skills training by 2030. To reach this goal, we are developing an online education platform for K-12 youth that will help address new hybrid (at home or in school) learning models and provide needed educational resources to district leaders, teachers, parents and students. Our future Teaching Training Pathways portal will feature credentialed courses for educators on remote learning and instructional technology coaching.



---

Further, recognizing the urgency for school districts to quickly and seamlessly secure connectivity for students, Verizon launched a new, national distance learning program that is now available to more than 38 million students across 40 states and the District of Columbia.

Under this new program, we have partnered with independent school districts and state departments of education to deliver 4G LTE wireless connectivity, devices, and other solutions to students nationwide. In particular, we are providing K-12 institutions with reliable connectivity, devices (hotspots/MiFi units), mobile device management, and other security/compliance apps that school districts rely on to support distance learning.



The FCC provides up to \$4 billion every year through the E-rate program for discounts to schools and libraries on telecommunications, internet access, managed internal broadband services, and basic maintenance of internal connections. While there may be future opportunities to modernize this program, Verizon is not urging specific changes here. However, in the interim, as part of the existing E-rate program, we support a broad interpretation of E-rate provisions of the Act, including the definition of “classroom.” Today, education is happening remotely, with “classrooms” outside of the traditional school building. Schools should be able to use their E-rate funding to help bring education to students, including for WiFi hubs, routers, and other technology to make it easier for kids to access educational content.

# Adoption, Digital Inclusion, and Literacy

A significant segment of our society is not using broadband even when it's available. This is particularly true for low-income and older citizens. The World Economic Forum noted in a recent report that "Even as connectivity players continue to invest in necessary infrastructure to grow coverage in underserved areas, there remains a sizable population that does not use high-speed networks (fixed/wireless) despite living in areas covered by them."<sup>14</sup> There is widespread agreement that the barriers to adoption include:

- 1 Lack of knowledge and experience:** People may not have the digital skills, experience, or training to interact online.
- 2 Lack of resources:** People cannot afford broadband or the equipment (computers, tablets, smartphones) to use it, and they may not be aware of Lifeline or other reduced cost broadband programs.
- 3 Lack of relevance:** People, particularly seniors, may not believe that broadband is important to their daily lives.

To address these issues and help ensure that the affordable broadband program is effective, federal, state, and local governments should provide additional funding to assist communities and individuals with increasing digital literacy education and encouraging adoption of broadband. Government agencies and community groups also can make it easier for constituents to access services online, including using mobile devices, thus creating additional incentives for broadband adoption.

---

## Supporting Grants for Increased Digital Literacy Education

**Over 50%**

Last year, the National Telecommunications and Information Administration (NTIA) reaffirmed its earlier finding that over half of those who do not have internet service at home assert they do not want or need it.<sup>15</sup> This NTIA report notes that, as of 2017, 28 million households did not use the internet from home. The 2017 survey showed the top reason that households gave for not using the internet at home was that they did not need it or had no interest in going online (58% or 16.2 million).<sup>16</sup> Lack of relevancy was the number one reason given in 2015 as well.<sup>17</sup>

---

### **Broadband adoption in lower income groups lags behind other individual users.**

In 2019, the Pew Research Center released a study that examines home broadband and internet use across the U.S. and pinpoints adoption growth by income and age.<sup>18</sup> The Pew study finds that internet usage in adults earning less than \$30,000 per year trails that of adults making \$75,000 or more by 16% (82% vs. 98%). While this gap has closed somewhat since 2000 (when there was a 66% difference in usage between the two groups), low-wage workers today are still significantly less likely than high-wage workers to use the internet. Indeed, these numbers show that low-wage workers are only now, twenty years later, reaching about the same level of adoption and use as did high-wage workers in 2000.

---

**73% usage rate**

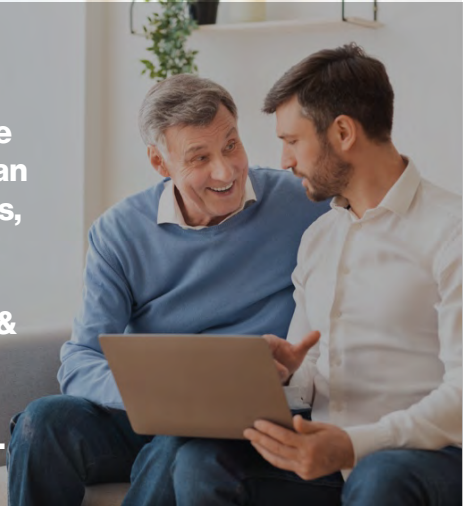
Older people also are less likely to adopt broadband. While adults under 50 years old have adoption rates approaching or nearly 100%, usage rates drop to 88% for those aged 50 to 64, and are even lower at 73% for people over the age of 65.<sup>19</sup> While seniors have increased their adoption significantly from the 14% of users in 2000, there are too many who still aren't online.

---

---

## **There are a number of steps the government can take to increase adoption.**

**First, the government can assist in improving and supporting digital literacy training. Digital literacy is an effective means for galvanizing digital participation, particularly among low-income communities and seniors. Someone who is “digitally literate” can use broadband and technology to connect with family members, communicate across digital platforms, collaborate with colleagues, and take part in the digital economy.<sup>20</sup> Advocacy groups such as NDIA<sup>21</sup> and the Benton Institute for Broadband & Society make the case that more and consistent federal and state funding is needed to uplift digital literacy programs in the U.S. and increase digital participation for millions of Americans.**



## **Further, adoption rates are driven by increasing opportunities for communities and individuals to understand the relevance of digital and online content to them.**

Not only must people have access to relevant digital content and services that meet their needs, but they must see the internet as relevant and important to their daily lives. This requires the development of an ecosystem of apps, content, and services that address the needs, preferences, and capabilities of unconnected and under-connected people. Users also need training in digital skills sufficient to build the confidence necessary to engage meaningfully with the internet. Such skills training must adapt as technologies evolve.

To address these issues, the government should pass legislation establishing grants to support digital education, training, and digital inclusion, such as the \$1.25 billion five-year digital equity grant program contemplated in the Digital Equity Act and the Accessible, Affordable Internet For All Act.<sup>22</sup> These grants would be administered by NTIA, and would allocate funding between grants intended to support state level digital equity plans and digital inclusion activities, as well as more targeted funding to organizations providing local or regional services, training programs, or other workforce development programs. They might also support development of public access computing centers, promote broadband adoption, implement training programs, and make available equipment, hardware, and software.

As laid out in these proposals, these types of grants also envision potential collaboration with community anchor institutions (public schools, libraries, medical or healthcare providers, community colleges or other higher education institutions, and other nonprofit or governmental community support organizations), local educational agencies, Native American tribes where applicable, county and municipal governments, nonprofit organizations, veterans, organizations that represent individuals with disabilities, the aging, or individuals with language barriers, individuals incarcerated in state facilities, civil rights organizations, entities that carry out workforce development programs, public housing groups, and state agencies responsible for administering or supervising adult education and literacy. Other grants should also be targeted at supporting education and digital literacy for households with an annual income up to 150% of the federal poverty line, the elderly, and people with disabilities.

---

## Ensuring Government Services are Online and Mobile-Accessible

Providing training and encouragement to get online is critical. But it is also important to ensure that the government does not create disincentives for doing so. **Government services and information need to be available and accessible online, and optimized to permit citizens to access them using either a computer or a mobile device.**

Today, too many government services require outdated technologies or in-person visits to access or complete, which became starkly clear in the midst of the pandemic. For example, people in California hoping to apply to a state program providing unemployment benefits were required to fill out and mail paper applications, receive responses by mail, and process physical claim forms.<sup>23</sup> When the Alabama online systems froze or failed, hundreds of people drove to Montgomery and slept outside the unemployment claims center to try to receive their benefits.<sup>24</sup> People in Florida reported being locked out of the state's unemployment system and being required to use paper applications to file their claims.<sup>25</sup>

Other state systems are technologically outdated or were unable to handle the increase in users related to the pandemic. For example, Californians trying to file unemployment insurance claims online “were greeted with error messages, frozen screens, and other glitches.”<sup>26</sup> Arizona's website for its unemployment system crashed.<sup>27</sup> Oregon processes unemployment filings “with obsolete computers running systems that date back to the Reagan administration.”<sup>28</sup> South Carolina residents were met with slow-loading pages and accessibility issues, as well as an online system that did not allow constituents to cite COVID-19 as the reason for their unemployment.<sup>29</sup> And in some instances, state and local systems that might have been able to handle pandemic related use were rendered unusable by hackers or subject to ransomware.<sup>30</sup>

**Governments shouldn't create barriers to being online.** Instead, federal, state, and local systems need to incentivize online use. Whether it's information about Social Security, Medicare, telehealth, or vocational education training, making it easy for people to access these services using convenient and secure apps or websites could drive adoption and help improve efficiency of government services at the same time.<sup>31</sup> State and federal governments are already making progress in digitizing their services, but accelerating those efforts in addition to providing digital literacy training could help make the internet relevant to those people who have access to broadband and can afford it but don't see the relevance.

But these transitions require technological training and systems updates, and likely federal funding. Congress should also provide grants to update local systems to better protect against cyber threats and hacking attempts,<sup>32</sup> or to support transitioning to .gov websites (as opposed to .com, .us, or open domain sources).<sup>33</sup>

---

# Increasing Access to Broadband

## Rural Broadband Funding

**14.5** million

At least 14.5 million Americans live in census blocks wholly unserved by fixed broadband networks.

---

**\$40** billion

The FCC has committed \$40 billion over the next decade to its existing USF rural broadband programs.

---

**6-7** million

The planned deployments, which will cover about 6-7 million homes and small businesses.

---

**2027**

But while significant, the programs funded by this approach still will not reach all of the unserved homes (and, in some cases, will not be complete) until the end of 2027.

---

**Today, many people in the U.S. have access to multiple fixed broadband offerings at speeds nearing 1 gigabit per second (Gbps) at their home, and multiple 4G LTE and/or 5G options for mobile wireless services. But there are still too many Americans who lack access to broadband, particularly in rural areas.**

The FCC has tackled some of the more complex parts of solving the rural broadband problem. For example, the FCC is now working to implement a broadband mapping initiative to more accurately identify unserved areas, for which Congress has now provided funding. The FCC has also developed a fair and flexible process under the existing USF program for distributing government funding to targeted areas. Congress should match additional funding with the FCC's pre-existing program design to make broadband available to all Americans.

---

Despite this progress, the FCC reports at least 14.5 million Americans live in census blocks wholly unserved by fixed broadband networks offering download speeds of at least 25 Mbps and upload speeds of at least 3 Mbps.<sup>38</sup> And that figure may understate the number of unserved Americans. As the FCC has acknowledged, there are additional unserved Americans in partially served census blocks that cannot be identified using existing mapping data. Verizon supports ongoing initiatives to obtain more granular map data.

---

The FCC has committed \$40 billion over the next decade to its existing USF rural broadband programs, the Rural Digital Opportunity Fund (RDOF) and CAF. The planned deployments, which will cover about 6-7 million homes and small businesses at speeds up to 1 Gbps, will substantially reduce the size of the rural deployment gap. But while significant, the programs funded by this approach still will not reach all of the unserved homes (and, in some cases, will not be complete) until the end of 2027.

---

There are a number of policy proposals under discussion to support increased access to broadband, including bipartisan support for funding rural broadband.<sup>39</sup> As suggested by some of the proposals, we believe that to close the remaining rural deployment gap, Congress must provide additional financial support. There are many challenges to building out home broadband in rural America. The often rough terrain and low-density population levels are, and have been, formidable barriers to private investment.



**Broadband providers want to serve more of rural America but, in many areas, the economics make doing so next to impossible. Given that, policymakers on both sides of the aisle have long-acknowledged it will take a combination of public and private funding to make universal broadband a reality.**

The legacy USF programs that fund broadband deployment in high-cost areas cannot produce the amount of funding necessary to close the rural broadband gap once and for all, for many of the same reasons we discuss above related to the Lifeline program. The USF also requires broadband investment to be spread out over many years, delaying the timeline for connecting rural America years longer than residents in those areas should have to wait. The only way to reach all unserved households and to accelerate universal broadband expansion in the near term is through Congressional appropriation of new funds.

**Rather than create a new rural broadband infrastructure program, Congress should appropriate supplemental support to the FCC’s existing RDOF program or at least leverage the RDOF framework.**

By providing additional funding to the FCC, Congress can – relative to the deployment the FCC has already planned – extend broadband to more unserved homes, support faster speeds, and accelerate the deployment timeline. Building on the FCC’s existing programs would close the rural deployment gap faster than launching a new program from scratch. And, because the FCC already runs the largest federal broadband program, providing supplemental funding to the FCC would be more efficient than giving money to another agency (such as RUS or NTIA) that would then have to coordinate with the FCC.

Expanding access to broadband services will require creative and flexible thinking to identify the right outcome for everyone, since deployment could cover a range of options from ensuring all households have at least 25/3 broadband service to wiring every household in America with fiber. But we urge a flexible approach that balances both costs and the need for access by acknowledging a variety of technologies may be appropriate, depending on the specific location. Indeed, an FCC study has shown that the most expensive 2% of homes to serve account for a disproportionate share of the cost.<sup>40</sup> So we propose that Congress include multiple types of technologies, including 5G, LTE, and satellite, as eligible for funding.

Fortunately, if Congress takes this on, it would be built on an established foundation, since the FCC has already done the hard and important work to establish standards and procedures to fairly and effectively distribute broadband subsidy money to connect unserved areas. The FCC’s recently-adopted RDOF provides a mechanism for ensuring that dollars appropriated by Congress are distributed in a flexible, efficient, and targeted manner. Building on years of precedent, the RDOF bridges ideas from past administrations from different political parties, and is already setup to fund \$20.4 billion in broadband investment over the next ten years.<sup>41</sup>

---

**The structure of the RDOF funding mechanism gets a number of things right from a policy perspective:<sup>42</sup>**

- **It uses a transparent and efficient** competitive bidding process to distribute funding
- **It is technology neutral**, offering support for both wired and wireless technologies
- **It supports four different speed “tiers”** (25/3 Mbps, 50/5 Mbps, 100/20 Mbps, and 1 Gbps/500 Mbps), which allows bidders to propose the most cost-effective approach to address geographic differences and meet customer needs
- **It allows participation by almost any provider**, large or small, private or public
- **It avoids overbuilding** by targeting funding to unserved areas
- **It includes strong audit and compliance requirements**
- **It does not impose unnecessary and unrelated conditions** that discourage participation.

With sufficient new funds appropriated, the RDOF could replace or supplement the existing USF surcharge amounts. And this new lump sum of funding could be available for use right away, instead of continuing to rely on USF surcharge funds that will trickle in at a dwindling rate over a period of years.



**Fully funding the RDOF through appropriations with enough money to extend broadband to unserved areas is the most effective way for Congress to promote universal availability of broadband.**



---

## Municipal Broadband

**A number of parties have suggested that solutions to rural broadband availability should also contemplate permitting, encouraging, or funding municipalities and rural co-ops to build publicly-owned broadband.**

While many of these municipal attempts have not been successful, there may be opportunities where they make economic and practical sense if municipalities are careful to identify locations that do not currently have or contemplate broadband coverage in any form, and/or in partnership with private entities. We agree that municipalities shouldn't be prohibited from efforts to step in to serve their constituents where other options are not available. But these entities should be aware that this is a risky and difficult proposition with an inconsistent track record. In more than a hundred attempts over the past twenty years, municipal networks have often been both costly to build and a number have failed.<sup>43</sup>



**Despite some of these difficulties, there may be unserved locations where a targeted, narrow municipal approach may be a useful tool to build or support broadband that will reach all citizens.**

These are likely to be areas where it is impossible or impractical for private entities to build either wireless or home broadband, or where no existing or contemplated subsidies or assistance may create the necessary incentives. Identifying those discrete locations will most likely be a specific, granular process, looking for the areas where not only has there been no sustained private investment, but also where no entity has sought RDOF or other public funding to build.

**Given the importance of broadband, we believe that it's not appropriate to prevent municipalities from even considering building in these unserved and unlikely to be served areas.**

Thus, we do not support state laws or regulations that would block municipalities or rural co-ops from building publicly owned broadband networks in these locations. There may be unserved areas where municipalities or rural co-ops should at least have the ability to consider if funding all or part of a network from their own resources makes sense for their community.

**Such proposals may make more sense in instances where municipalities can partner with existing nearby providers in public-private partnerships, or where a municipal network offers open access, reduced middle-mile expenses, or can provide lower rights of way and attachment costs to providers to spur continued growth and deployment.**

---

## Conclusion

**It's time for a new national strategy to deliver affordable broadband to all Americans and to help them develop the skills to use it. The COVID-19 pandemic has made clear that broadband is integral to our daily lives, to working, learning and communicating in the world today. But not everyone has access to broadband. And many cannot afford it or lack the digital literacy skills to use it.**

---

Over the years, Congress and the FCC have adopted policies to bridge the digital divide. They have implemented programs to make broadband more affordable for low-income Americans and have directed funds to expand broadband to unserved rural areas. Broadband providers, too, are trying to meet the challenge, offering discounted service plans for low-income people. While these efforts are making broadband more available to more Americans, they don't go far enough to close the gap.

Policymakers and many Americans agree that the government should help make broadband more affordable and accessible. The broadband gap is a persistent national problem. But it is solvable. Adopting the policies we've proposed to address affordability, adoption and access would significantly narrow the digital divide and empower more Americans to thrive in the internet age.

---

**Through smart public policy and coordinated government and private sector action, we can make broadband available and affordable to all Americans.**

**verizon**

# References

- (1) Monica Anderson, "Mobile Technology and Home Broadband 2019," Pew Research Center (June 13, 2019), <https://www.pewresearch.org/internet/2019/06/13/mobile-technology-and-home-broadband-2019/>.
- (2) GAO Report, "Improved Management Can Enhance FCC Decision Making for the Universal Service Fund Low-Income Program," at 5 (Oct. 2010), <http://www.gao.gov/products/GAO-11-11>.
- (3) *Lifeline and Link Up Reform and Modernization, et al.*, Third Report and Order, Further Report and Order, and Order on Reconsideration, 31 FCC Rcd 3962 (2016).
- (4) Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) ("1996 Act").
- (5) GAO Report, "Additional Action Needed to Address Significant Risks in FCC's Lifeline Program," at 9-10 (May 2017), <https://www.gao.gov/products/GAO-17-538>.
- (6) See, e.g. <https://www.businessroundtable.org/business-roundtable-urges-lawmakers-to-act-on-bridging-digital-divide-during-pandemic>.
- (7) USAC, Acceptable Documentation for the National Verifier, <https://www.usac.org/lifeline/eligibility/national-verifier/acceptable-documentation-for-the-national-verifier/> (listing acceptable programs for Lifeline qualification) (last visited Nov. 1, 2020).
- (8) "Join Lifeline as an ETC," <https://www.usac.org/lifeline/get-started/join-lifeline-as-an-etc/>.
- (9) Joan Marsh, AT&T, "Making Lifeline a Snap for Eligible Households," (Aug. 4, 2020), <https://www.attpublicpolicy.com/universal-service/making-lifeline-a-snap-for-eligible-households/> ("Making Lifeline a Snap").
- (10) *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, 2015 Broadband Progress Report and Notice of Inquiry on Immediate Action to Accelerate Deployment, 30 FCC Rcd 1375, ¶ 45 (2015). There are discussions about whether this speed is adequate or should be increased. As those continue, we intend to be part of that conversation.
- (11) See *Making Lifeline a Snap* (also arguing for adoption of a digital electronic benefits card and seamless verification).
- (12) "Statement of Commissioner Jessica Rosenworcel on New Homework Gap Data from Pew Research Center," DOC-354809 (Oct. 26, 2018), <https://docs.fcc.gov/public/attachments/DOC-354809A1.pdf>.
- (13) See *Welcome to Verizon Innovative Learning*, <https://vzweb.verizon.com/verizon-innovative-learning-page>.
- (14) *Accelerating Digital Inclusion*, at 9.
- (15) Rafi Goldberg, "Unplugged: NTIA Survey Finds Some Americans Still Avoid Home Internet Use," NTIA (Apr. 15, 2019), <https://www.ntia.doc.gov/blog/2019/unplugged-ntia-survey-finds-some-americans-still-avoid-home-internet-use>.
- (16) *Id.*
- (17) Maureen Lewis, "Digitally Unconnected in the U.S.: Who's Not Online and Why?" NTIA (Sept. 28, 2016), <https://www.ntia.doc.gov/blog/2016/digitally-unconnected-us-who-s-not-online-and-why>.
- (18) Pew Research Center Internet & Technology, Internet/Broadband Fact Sheet (June 12, 2019), <https://www.pewresearch.org/internet/fact-sheet/internet-broadband/>.
- (19) *Id.*
- (20) See, e.g. The American Library Association's Digital Literacy Task Force definition of literacy as "the ability to use information and communication technologies to find, evaluate, create, and communication information, requiring both cognitive and technical skills." <https://literacy.ala.org/digital-literacy/>; see also The National Digital Inclusion Alliance (NDIA)'s profile defining digital literacy. <https://www.digitalinclusion.org/definitions/>.
- (21) See "Empowering and Connecting Communities Through Digital Equity and Internet Adoption," Hearing Before the H. Subcomm. on Commc'ns and Tech., Comm. on Energy and Com., 116th Cong. (2020) (statement of Angela Siefer, Executive Director, National Digital Inclusion Alliance), <https://docs.house.gov/meetings/IF/IF16/2020129/110416/HRG-116-IF16-Wstate-SieferA-2020129.pdf>.
- (22) See, e.g. Digital Equity Act of 2019, S. 1167, 116th Cong. § 4(c)(1)(D)(i-x) (2019), <https://www.congress.gov/bill/116th-congress/senate-bill/1167/text>.
- (23) Patrick McGreevy & Kim Christensen, "Californians battling unemployment amid coronavirus are stymied by state agency's tech issues," Los Angeles Times (Apr. 27, 2020, 5:00 AM), <https://www.latimes.com/california/story/2020-04-27/coronavirus-california-unemployment-insurance-claims-technology-issues-edd> ("California Unemployment Tech Issues").
- (24) Melissa Brown, "As Alabamians sleep on pavement for benefits, state unemployment fund runs low," Montgomery Advertiser (July 20, 2020, 11:02 AM), <https://www.montgomeryadvertiser.com/story/news/2020/06/26/alabama-unemployment-montgomery-acadome-fund-could-insolvent-soon/5259768002/>. Jerry Askin, "Florida's unemployment application system to go down overnight," ClickOrlando.com (Apr. 5, 2020, 11:47 PM), <https://www.clickorlando.com/news/local/2020/04/05/floridas-unemployment-system-to-go-down-overnight/>.
- (25) Jerry Askin, "Florida's unemployment application system to go down overnight," ClickOrlando.com (Apr. 5, 2020, 11:47 PM), <https://www.clickorlando.com/news/local/2020/04/05/floridas-unemployment-system-to-go-down-overnight/>.
- (26) See "California Unemployment Tech Issues."
- (27) Ryan Randazzo, "Why won't they answer? Glitches, mixups, delays plague Arizona unemployment agency," Arizona Republic (Aug. 17, 2020, 8:00 AM), <https://www.azcentral.com/story/money/business/consumers/2020/08/17/arizona-unemployment-benefits-agency-still-has-problems-giving-out-money/5519461002/>.
- (28) Mike Rogoway, "Oregon's antiquated computers could cost laid-off workers more than \$100 million in benefits," Oregonian (Apr. 15, 2020, 5:44 PM), <https://www.kgw.com/article/news/health/coronavirus/oregons-antiquated-computers-could-cost-laid-off-workers-more-than-100-million-in-benefits/283-7aa3ee82-3bed-47f6-a494-5548c117bf91>.
- (29) Kirk Brown, "Glitches, delays plague SC's overloaded unemployment system during COVID-19 pandemic," Greenville News (Apr. 8, 2020, 11:58 AM), <https://www.greenvilleonline.com/story/news/local/2020/04/08/coronavirus-sc-covid-19-glitches-and-delays-plague-unemployment-system-during-pandemic/2967812001/>.
- (30) See, e.g. Brian Gordon Gaston, "As classes move online, North Carolina schools face increased ransomware risk," News & Record (Apr. 30, 2020), [https://greensboro.com/news/education/as-classes-move-online-north-carolina-schools-face-increased-ransomware-risk/article\\_65015d2a-e950-11ea-8dc6-b784ca800b44.html](https://greensboro.com/news/education/as-classes-move-online-north-carolina-schools-face-increased-ransomware-risk/article_65015d2a-e950-11ea-8dc6-b784ca800b44.html).
- (31) Online access should be an alternative, not the only way to access the most essential resources, until adoption levels increase.
- (32) See Kevin Collier, "Half of U.S. local government offices haven't upgraded their ransomware defenses since 2019's online crime spree, IBM poll says," Fortune (Feb. 27, 2020), <https://fortune.com/2020/02/27/local-government-ransomware-preparedness/>.
- (33) See, e.g. DOTGOV Act of 2019, S.2749, 116th Cong. (2019).
- (34) See, e.g. Verizon Annual Reports, <https://www.verizon.com/about/investors/annual-report>. A 2013 White House report noted that "U.S. telecommunications firms have made significant investments in infrastructure; for example, just two of the largest U.S. telecommunications companies account for greater combined stateside investment than the top five oil/gas companies, and nearly four times more than the big three auto companies combined." Office of Science & Tech. Policy and NEC, Four Years of Broadband Growth, The White House 4-5 (June 2013), [https://obamawhitehouse.archives.gov/sites/default/files/broadband\\_report\\_final.pdf](https://obamawhitehouse.archives.gov/sites/default/files/broadband_report_final.pdf).
- (35) *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, 2020 Broadband Deployment Report, 35 FCC Rcd 8986, ¶ 36 at Fig. 1 (2020) ("2020 Broadband Deployment Report").
- (36) See "USTelecom Industry Metrics and Trends 2020," attached to USTelecom Comments, *Office of Economics and Analytics Seeks Comment on the State of Competition in the Communications Marketplace*, GN Docket No. 20-60, at 12 (Apr. 27, 2020) (This figure includes all capital expenditures reported by U.S. telephone companies, cable companies, wireless companies and CLECs from 1996-2018).
- (37) FCC News Release, "New FCC Report Shows Digital Divide Continuing to Close," DOC-363985 (Apr. 24, 2020), <https://docs.fcc.gov/public/attachments/DOC-363985A1.pdf>.
- (38) FCC News Release, "2019 Broadband Deployment Data Show Digital Divide is Closing," DOC-368112A1 (Nov. 12, 2020).
- (39) See, e.g. Rural Connectivity Advancement Program, <https://www.congress.gov/bill/116th-congress/senate-bill/4015/text>; see also Eliminate the Digital Divide Act, <https://www.congress.gov/bill/116th-congress/senate-bill/4789/text>.
- (40) Paul de Sa, Office of Strategic Planning and Policy Analysis, *Improving the Nation's Digital Infrastructure*, at 2 (Jan. 17, 2017), [https://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2017/db0119/DOC-343135A1.pdf](https://transition.fcc.gov/Daily_Releases/Daily_Business/2017/db0119/DOC-343135A1.pdf). ("We estimate that the total upfront capex required to deploy FTTP to the 14% of locations lacking access would be -\$80b but, because of the shape of the cost curve, -98% coverage could be attained for -\$40b.")
- (41) See *Rural Digital Opportunity Fund*, Report and Order, 35 FCC Rcd 686 (2020).
- (42) Verizon is not commenting on or referring to the RDOF auction since we are an applicant in that auction and are in the FCC's "quiet period."
- (43) See, e.g. Vince Horiuchi, "Council Approves iProvo Sale to Google," The Salt Lake City Tribune (Apr. 24, 2013, 9:35 AM), <https://archive.slttrib.com/article.php?id=56206589&itype=CMSID>; "Marietta selling city-owned Internet company at \$24 million loss," AP (July 29, 2004, 1:50 AM), <https://accesswdun.com/article/2004/7/164184>; "Citibank fully releases Burlington from \$33.5 million BT lawsuit," Vermont Business Magazine (Mar. 13, 2019, 5:01 PM), <https://vermontbiz.com/news/2019/march/13/citibank-fully-releases-burlington-335-million-bt-lawsuit>; Teri Cadeau, "County awards \$8.4M winning bid for Lake Connections," Duluth News Tribune (Dec. 21, 2018, 5:00 PM), <https://www.duluthnewtribune.com/news/government-and-politics/4547073-county-awards-84m-winning-bid-lake-connections>; Deborah Straszheim, "How A Promising Idea Went Terribly Wrong In Groton," The Patch-Groton, CT (Jan. 6, 2013, 1:11 AM), <https://patch.com/connecticut/groton/how-a-promising-idea-went-horribly-wrong-in-groton>.