



1212 New York Ave. NW  
Suite 900  
Washington, D.C. 20005  
202-525-5717

**Free Markets. Real Solutions.**  
**[www.rstreet.org](http://www.rstreet.org)**

May 6, 2021

The Honorable Michael Doyle, Chairman  
Committee on Energy & Commerce  
Subcommittee on Communications and Technology  
U.S. House of Representatives  
270 Cannon House Office Building  
Washington, D.C. 20515

The Honorable Robert E. Latta, Ranking Member  
Committee on Energy & Commerce  
Subcommittee on Communications and Technology  
U.S. House of Representatives  
2467 Rayburn House Office Building  
Washington, D.C. 20515

**RE: Hearing on “Broadband Equity: Addressing Disparities in Access and Affordability”**

Dear Chairman Doyle and Ranking Member Latta,

R Street commends the Committee on its continuing efforts to promote broadband availability and adoption, as well as this hearing to explore potential disparities among Americans.<sup>1</sup> Broadband has never been more important, and it is critical that we continue to explore different options for bridging the digital divide. However, many proposals currently on the table can be counterproductive or waste valuable taxpayer dollars. As the committee considers the different options before it, R Street submits two recent publications to help provide context to the current regulatory environment, as well as potential solutions that will help spur both deployment and adoption of broadband services.

On the broadband deployment side, an R Street blog post details the potential hazards with the Biden infrastructure proposals.<sup>2</sup> Most worrisome, the plan appears to call for a favoritism toward municipally run networks, despite significant potential problems with these networks.<sup>3</sup> Further, the plan also calls for future proofing broadband networks, though this essentially means fiber networks with symmetrical 100 megabits per second (Mbps) upload and download speeds. These proposals would harm competition and innovation, leading to lower private investment in broadband infrastructure. Instead, Congress should continue the streamlining of local deployment processes, as local barriers such as access to public rights-of-way and replacing utility poles can often serve as a significant barrier to deployment.<sup>4</sup>



1212 New York Ave. NW  
Suite 900  
Washington, D.C. 20005  
202-525-5717

**Free Markets. Real Solutions.**  
**[www.rstreet.org](http://www.rstreet.org)**

On the broadband adoption side, the Biden plan also alluded to potential price controls, with general sentiment being that broadband prices are too high. However, data suggests prices are lower and speeds are higher than ever before.<sup>5</sup> To the extent that low-income consumers need additional support to afford broadband connectivity, Congress should instead look to potential reforms to the Lifeline program that would deliver the benefit directly to the consumers, as well as update the funding mechanism to bring stability to the program. R Street's policy short on the subject can help provide context and analysis on some of these proposals.<sup>6</sup>

Broadband is critical for Americans, and we commend the Committee for continuing its work to help connect people across the country. Please see attached for the publications mentioned above.

Sincerely,

Jeffrey Westling, Technology and Innovation Policy Resident Fellow  
R Street Institute

CC:

Hon. Frank Pallone, Chairman  
House Energy & Commerce Committee  
U.S. House of Representatives  
2125 Rayburn House Office Building  
Washington, D.C. 20515

Hon. Cathy McMorris Rodgers  
House Energy & Commerce Committee  
U.S. House of Representatives  
1035 Longworth House Office Building  
Washington, D.C. 20515

---

<sup>1</sup> "Hearing on 'Broadband Equity: Addressing Disparities in Access and Affordability'" Before the House Subcommittee on Communications and Technology of the Committee on Energy & Commerce, 117<sup>th</sup> Cong. May 6, 2021. <https://energycommerce.house.gov/committee-activity/hearings/hearing-on-broadband-equity-addressing-disparities-in-access-and->

<sup>2</sup> Jeffrey Westling, "Biden infrastructure package ignores practical reforms to spur broadband deployment," *R Street Blog Post*, April 14, 2021. <https://www.rstreet.org/2021/04/14/biden-infrastructure-package-ignores-practical-reforms-to-spur-broadband-deployment/>.

<sup>3</sup> Briefing Room, "FACT SHEET: The American Jobs Plan," The White House, March 31, 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/>.

<sup>4</sup> Jeffrey Westling, "2020 Broadband Scorecard Report," *R Street Policy Study*, Feb. 10, 2021. <https://www.rstreet.org/2021/02/10/2020-broadband-scorecard-report/>.

<sup>5</sup> *2020 Broadband Pricing Index Report*, United States Telecom Association, 2020. <https://www.ustelecom.org/research/2020-broadband-pricing-index-report/>.



1212 New York Ave. NW  
Suite 900  
Washington, D.C. 20005  
202-525-5717

***Free Markets. Real Solutions.***  
***www.rstreet.org***

---

<sup>6</sup> Jeffrey Westling, "Updating the Lifeline Program," *R Street Policy Study*, April 22, 2021.  
<https://www.rstreet.org/2021/04/22/updating-the-lifeline-program/>.

## Biden infrastructure package ignores practical reforms to spur broadband deployment

By Jeffrey Westling

A reliable broadband connection has never been more important as Americans try to stay connected during these isolating times. Understanding this, the Biden administration announced plans to facilitate broadband deployment and improve access to high-speed networks. While some communities, especially those in rural, hard-to-reach locations, will need financial support to develop a business case for deployment, regulators must carefully consider the structure of any subsidy.

Under the [American Jobs Plan](#), the Biden administration would allocate \$100 billion to build high-speed broadband. The proposal would distribute funding with a preference for municipal broadband initiatives and the construction of “future proof” infrastructure. It also seeks to reduce the cost of broadband internet to encourage adoption, though the means for cost mitigation remain unclear.

Unfortunately, this plan quickly becomes counterproductive. Municipal broadband projects often ignore the key challenge: the [equilibrium number of firms](#). By adding an additional competitor that can cross-subsidize broadband provisions, municipal networks often disrupt the market and freeze private investment. Municipal broadband might make sense in communities that truly lack a business case for the deployment of private networks, but the plan would also make these communities more difficult to identify by distorting the definition of served.

“Future proof” networks has recently meant [symmetrical speed](#) and [fiber](#) networks. For example, some have called for a definition of broadband to mean speeds of 100 megabits per second (Mbps) both down and up, despite usage [data](#) highlighting that downstream traffic significantly outweighs that of upstream. The plan would essentially turn large portions of America into unserved areas, as most high-speed networks lack 100 Mbps upload speed. Worse, by focusing on giving every American home a fiber connection, the bill would prevent innovative new services from breaking into the market, regardless of whether they would be better suited for a particular deployment.

But there are steps regulators can take to spur broadband deployment.

Physical infrastructure constitutes only a portion of broadband deployment costs, much of which comes from things like the [application and permitting process](#). While it is important for local governments to maintain rights-of-ways oversight and infrastructure installation, these processes often add significant costs to deployment. The Federal Communications Commission (FCC) has done significant work [streamlining](#) the process, but mostly for small 5G wireless facilities; broadband providers still face significant costs at state and local levels.

Unfortunately, the permitting process is only a portion of the issue. In a recent New York expansion, Charter Communications found that pole [replacement costs](#) accounted for about 25 percent of total network construction costs. These poles are owned primarily by electric utilities, and often must be upgraded to ensure that they can accommodate additional attachments while still complying with local

regulations. Despite the fact that the pole owner receives the benefits from the replacement, the cost [usually falls](#) on the broadband provider.

The FCC addressed this issue, [requiring](#) that utilities share the cost of pole replacement in rural areas when attachments are not the sole reason for the upgrade. While helpful, the Commission's jurisdiction only extends to investor-owned utilities. For many municipal and co-op- owned poles, broadband providers still face significant replacement costs. Worse, municipal and electric co-ops often [charge](#) significantly more than the regulated rates from the Commission for access to this vital infrastructure. If Congress does prioritize municipal broadband projects, it may mean private companies will face exorbitant costs to access the poles, functionally excluding them from the market.

Instead of subsidizing municipally run competitors who can access public rights-of-way and limit private deployment, Congress and state governments should focus on eliminating entry barriers: they should streamline the deployment process and extend the FCC replacement cost- sharing regime to all poles, especially those in rural areas where replacements often serve as a barrier to deployment. This will reduce the cost of deployment, maximizing the value of each subsidy dollar spent.

Broadband has never been more important for Americans across the country, but we must approach the problem thoughtfully to ensure we actually make broadband available to the entire country.



Free markets. Real solutions.

---

R STREET SHORTS NO. 102

April 2021

---

## UPDATING THE LIFELINE PROGRAM

By Jeffrey Westling

### INTRODUCTION

**A**cross the country, Americans rely on broadband connectivity to work, learn and stay connected with friends and family. Unfortunately, many still lack reliable broadband connectivity.<sup>1</sup> Accordingly, the American Jobs Plan President Biden revealed last month allocated \$100 billion to subsidize broadband deployment.<sup>2</sup> For many communities—especially rural areas with limited potential revenue—a direct subsidy may be the best chance they have of getting connected. But, while Biden’s plan works toward greater deployment (and in spite of its potential pitfalls), it does not directly address the corresponding issue of broadband adoption, especially in areas with existing options for consumers.<sup>3</sup>

While there are many factors that contribute to the relatively low adoption rates of broadband service, price remains a primary challenge for those with lower incomes. Some internet service providers have made attempts to offer more budget friendly pricing plans, however, such efforts only scratch the surface of a deeper issue.<sup>4</sup> Similarly, pandemic related responses are only temporary fixes that leave larger underlying issues looming ahead. In light of this, one pos-

sible solution may be to update the Federal Communications Commission’s (FCC) Lifeline program.<sup>5</sup>

The Lifeline program originally provided financial assistance for landline telephony, as voice service became essential to everyday life.<sup>6</sup> Since then, broadband has quickly overtaken telephony as a pseudo-essential, and while it is not necessarily required for all, society continues every day to go more virtual.<sup>7</sup> Accordingly, the FCC has expanded Lifeline to include broadband, but many of the processes remain outdated, unworkable and subject to exploitation by bad actors.<sup>8</sup> For this reason, industry leaders have recently begun calling for drastic reforms to the program.<sup>9</sup> This policy short therefore analyzes the proposed changes and the possible impact these reforms would have on broadband adoption, as compared to the existing Lifeline subsidy.

### UPDATING THE FUNDING MECHANISM

Currently, Lifeline funding comes from a surcharge on existing subscribers, but only from Title II telecommunications services (think: traditional voice telephony).<sup>10</sup> While the FCC extended this to Voice over Internet Protocol (VoIP) services, a surcharge cannot be applied to broadband service.<sup>11</sup> However, broadband subscriptions have drastically increased, and so too have universal service programs. Indeed, since 2002, the contribution factor has increased 25 percent.<sup>12</sup> In practice, this means that those customers who subscribe to voice telephony service must pay an almost 32 percent tax to help support the universal service programs.<sup>13</sup> This will only grow more problematic as users continue to migrate to stand-alone broadband service. Any reforms to low-income assistance must first address this growing funding problem, especially if proposals seek to increase the total support provided.

### Expansion of Contribution Factor

Congress could allow the FCC to expand the contribution factor. This approach would ultimately leave a similar system in place as currently exists, meaning it would be a relatively simple change legislatively and administratively. By increasing the types of services that contribute to the Universal Service Fund, the contribution factor on existing ratepayers will go down. However, with this approach, the adoption rate of broadband services may not change, or may even go down. This is because, for those who are struggling to maintain connectivity, an additional surcharge on broadband service could make their existing plan unaffordable or simply not worth the costs. And while it’s true that some evidence suggests an additional surcharge may not drastically affect adoption rates, the approach will nevertheless require a determination of what services should contribute to the Universal Service Program.<sup>14</sup> Depending on how such an expansion is

incorporated, some services that benefit from universal service support may not end up supporting the program.

### Direct Appropriation

As an alternative, providers propose a new benefit program, either built on Lifeline or in tandem to it, which would be funded through direct appropriations from Congress. Under this approach, rather than adding additional charges to existing broadband subscribers, the benefit program would come directly from Congress. This provides significant benefits, as it could better stabilize the program and better promote broadband adoption than the existing Lifeline program.

In terms of stabilization, ratepayers would not see their monthly broadband bill continue to increase as the contribution factor rises over time. This will allow both families and the Universal Service Administrative Company (USAC) to better prepare for the future. However, unless clearly written into law, Congressional funding could sway with the political winds. If reforms to low-income support do rely on appropriations, it will be important to explore avenues to add certainty into the process.

Perhaps more importantly, a direct appropriation would better allocate the costs among taxpayers in a progressive manner. As it stands, the universal service fee applies equally to anyone purchasing telecommunications services regardless of whether the individual can barely afford the service or makes a million dollars a year.<sup>15</sup> An appropriations-based approach would alleviate the burden on low-income consumers by elevating the rate based on income bracket. This means that lower-income individuals will face less burden than they do within the current system, which will make it more affordable to subscribe to broadband service.

To be clear, additional subsidization of broadband may not have the drastic impact on adoption that most want to see. However, directly appropriating funding for a subsidy program better promotes the goals of widespread adoption than the current Lifeline structure.

### INCREASE OF THE BENEFIT SIZE

With an updated funding mechanism, Congress can explore other options to improve the Lifeline program to increase broadband adoption rates. Currently, the Lifeline benefit only provides \$9.25 a month for the recipient to spend on specific services.<sup>16</sup> This figure was tailored specifically to voice services as voice communication was the main telecommunications service envisioned by the program. Recently, this has been extended to broadband, but the subsidy has remained the same with some phase downs of voice-only support.<sup>17</sup> For many consumers, this \$9.25 will only make a small dent into most broadband offerings, and for many

low-income consumers, the difference may not justify subscription.<sup>18</sup>

However, many factors contribute to the lack of adoption beyond price, most notably a lack of interest.<sup>19</sup> Simply throwing more money at the problem may not significantly increase adoption rates if these other factors continue to suppress adoption. Further, many providers now offer low-cost options for low-income families; these offerings, though limited, offer another means of bridging the cost barrier for adoption.

Any subsidization will inherently take resources that could be used for other purposes, so Congress should be careful not to increase the benefit beyond a point where it will increase adoption. For example, Verizon suggests a benefit in the range of \$20-\$50 a month.<sup>20</sup> This is a wide range, and the needs of the consumer likely depend on the specific community, but it is a good starting point for discussions as Congress explores options for increasing the subsidy.

### DELIVERY OF THE BENEFIT

Even if Congress fully funds the benefit and increases the subsidy to support broadband services, other factors will affect the total value derived. First among these factors will be the delivery mechanism.

#### Consumer vs. Provider

Currently, the Lifeline program primarily works by providing the Internet Service Provider (ISP) with funds after the ISP verifies whether a subscriber is eligible for the program.<sup>21</sup> This has led to a number of problems. First, and most problematic, many mobile virtual network operators exploited the program for years by signing up consumers at no cost to the end user regardless of eligibility, and would continue to charge the fund monthly for the subscription.<sup>22</sup> This led to improper payment rates of 18.47 percent.<sup>23</sup> Congress designed Lifeline to encourage adoption of communications services, but many of these subscribers still lack meaningful connections as dubious operators gamed the system.

Second, by providing the benefit directly to the ISP, the provider will simply apply the benefit to existing subscribers, or to new eligible customers who are unaware of the benefit prior to deciding to purchase the subscription. In isolation, this is not really an issue. If the consumers are eligible for the benefit, they likely will derive some value from the lower costs they soon discover. However, this does little to increase adoption rates, which is the goal of the program.

Finally, because the support goes directly to the ISP, recipients often lack adequate knowledge about the program beyond the specific offering in front of them.<sup>24</sup> For example,

if an ISP presents a consumer with an offer for a free smartphone or home internet at no cost to them, they may jump at the first offering they see. However, often these consumers could find more value from obtaining a different service or speed tier if they knew those options existed.

Instead of providing the benefit directly to the ISP, then, Congress should deliver the benefit to the consumer. This would eliminate much of the fraud associated with unscrupulous bad actors engaging in the program because it takes the control out of the hands of the ISPs. Even though the FCC has done work to eliminate the practices that made fraud rampant in the program, bad actors can still exploit the system.<sup>25</sup> If consumers directly receive the benefit to apply to the program of their choosing, they will at least be aware (to some extent) what the benefit can be used for and what they will receive. This would also limit instances in which the subsidy is not used to meaningfully impact adoption rates, as those who currently do not subscribe to a Lifeline supported service would receive the benefit, raising awareness of the program.

But even beyond these benefits, directly providing the consumer with the benefit gives the recipient more flexibility to use it in a way that best suits them. There are countless communications services currently supported, as well as different offerings and plans designed for different consumers. If a recipient is not subscribed to broadband because, for example, a low-cost offering does not provide worthwhile speeds for that household, applying that benefit to a higher speed plan (or a plan with higher data limits) could be a much better value.<sup>26</sup>

Further, by delivering the benefit directly to the consumer, Congress can increase competition among providers. In an ISP-centric model, providers may lack incentive to target these lower-income customers. By allowing consumers to take the benefit and apply it to a wide array of services, they can then increase competition by increasing demand for those services. This is especially true in lower-income communities, which may currently lack meaningful choice simply due to the lack of potential revenue.

### Direct Delivery of the Benefit via an EBT Card

The difficulty with this approach stems from the physical delivery of the benefit to consumers. AT&T and Verizon both support providing the subsidy on an electronic benefit card (EBT) similar to the Supplemental Nutrition Assistance Program (SNAP), but designing such a card and developing the necessary infrastructure to process payments will present numerous challenges.<sup>27</sup>

EBT cards work much the same way as a debit card. The recipient receives the physical card along with a pin used

to identify themselves when making a purchase.<sup>28</sup> With the SNAP program, a grocery store can allow their systems to accept payment via the EBT card once the PIN matches the user, allowing for the recipient to directly spend the benefit on food and groceries.<sup>29</sup> However, customers can only use the EBT card for eligible purchases, not things like alcohol, vitamins or hot foods.<sup>30</sup>

Theoretically, this approach could work for a telecommunications subsidy. A retailer can implement the necessary systems to accept an electronic benefit card from the consumer, as well as qualify specific services and offerings for purchase. This would allow a recipient to apply the benefit to any qualifying purchase from any participating retailer. The relatively low burden on providers will likely increase provider participation, as recipients will engage at the storefront in much the same way as any other consumer. The increased participation also provides recipients additional options regarding how to spend the benefit.

The difficulty with this approach stems from more practical challenges. First, Lifeline is a national program run by the USAC, and likewise this new benefit would approach the problem at a national level. However, most EBT programs are run at the state level, and the infrastructure in place may vary.<sup>31</sup> For example, in some states, an EBT card connects the terminal with an account storing the benefits for the recipient; in others, the card physically stores the benefits.<sup>32</sup> Ideally, Congress would simply leverage these existing cards, but this may not be practical unless there is significant state buy-in to support the program.

Second, while Congress could leverage the necessary infrastructure from existing programs, there will be upfront costs to establish the accounts, deliver the cards, verify offerings and identify eligibility. With these added costs, Congress will need to appropriate additional funding just to get the program off the ground. This translates to either an increased tax burden or lower payments for recipients. Further, these upfront costs may burden smaller providers that do not already have some of the required infrastructure larger providers do, meaning there may be less competition among providers.

Finally, Congress must consider potential fraud. Programs like SNAP are not without fraud, and Congress should consider ways that unscrupulous actors can game the system.<sup>33</sup>

## OTHER MEANS OF IMPROVING ADOPTION

### ETC Designation

Most broadband subsidy programs grew out of general telecommunications subsidies, and with that outgrowth comes a requirement that participating providers receive



designation as an Eligible Telecommunications Carrier (ETC). At the time, this designation made some sense as a tool to prevent the discontinuation of telephony service in an area with no other options. But for broadband provision, these requirements often add significant costs that can prevent a provider from deploying service in an area. By eliminating any requirement that a broadband provider receive ETC designation, and therefore the burdens that come with it, Congress can ensure that the maximum number of providers will participate.<sup>34</sup> And, as consumer choice increases, the value of the subsidy will increase as well.

### Infrastructure Reforms

Similarly, promoting competition and deployment will likely have a direct impact on broadband adoption. As providers begin the process of actually laying the fiber or attaching radios, they must get regulatory approval and access to public rights-of-way. These processes often go beyond what is actually necessary for management of this infrastructure, and can add significant costs and delays to the deployment process. For example, on just the Missouri side of Kansas City, Google required 37,000 permits, which would have cost \$2 million had the city not waived the fees.<sup>35</sup>

If Congress decides to subsidize broadband in any form, lowering these regulatory barriers can help increase competition and deployment without adding additional subsidies. For instance, the Streamline Act (a national dig-once law), or the establishment of a cost-sharing regime for pole replacements in rural areas would be good steps to take and will translate to more options at lower prices for consumers.<sup>36</sup>

That is not to say that infrastructure reforms will spur universal deployment or outweigh the need for additional subsidies, but if Congress is going to spend valuable resources to support low-income adoption of broadband, it should maximize the value of each dollar spent. Reforming the infrastructure deployment process will help achieve this goal by promoting competition in services, which will give consumers more choices at lower prices.

### CONCLUSION

Broadband has become an integral part of American society, and those without a reliable connection face a growing divide. The FCC's Lifeline program was designed for voice telephony service, and unfortunately has become outdated for modern communications. It is time to revisit the program; exploring different ways to fund and deliver the benefit could greatly improve the efficacy of the subsidy. However, funding is not unlimited. It is vital that any reforms contemplate the potential waste associated with subsidy programs to protect taxpayer money.

### ABOUT THE AUTHORS

**Jeffrey Westling** is a resident fellow for technology and innovation policy whose research focuses on telecommunications. Before joining R Street, he acted as a legal fellow in the Office of Commissioner Brendan Carr at the Federal Communications Commission, working on a variety of issues such as broadband classification and wireless infrastructure.

## ENDNOTES

1. Gregory L. Rosston and Scott J. Wallsten, "Increasing Low-Income Broadband Adoption Through Private Incentives," *Technology Policy Institute Working Paper*, July 2020, p. 3. <https://techpolicyinstitute.org/wp-content/uploads/2020/07/RosstonWallstenIE.pdf>.
2. "FACT SHEET: The American Jobs Plan," The White House, March 31, 2021. <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/31/fact-sheet-the-american-jobs-plan/#:~:text=The%20American%20Jobs%20Plan%20is%20an%20investment%20in,by%20more%20than%2040%20percent%20since%20the%201960s>.
3. Jeffrey Westling, "Biden infrastructure package ignores practical reforms to spur broadband deployment," *R Street Blog*, April 14, 2021. [https://www.rstreet.org/2021/04/14/biden-infrastructure-package-ignores-practical-reforms-to-spur-broadband-deployment/?utm\\_medium=social&utm\\_source=t.co&utm\\_campaign=20210414\\_RSI-blog-biden-infrastructure-package-ignores-practical-reforms-to-spur-broadba](https://www.rstreet.org/2021/04/14/biden-infrastructure-package-ignores-practical-reforms-to-spur-broadband-deployment/?utm_medium=social&utm_source=t.co&utm_campaign=20210414_RSI-blog-biden-infrastructure-package-ignores-practical-reforms-to-spur-broadba).
4. As an example, see Comcast's "Internet Essentials" plan for low-income subscribers here: <https://www.internetessentials.com>.
5. "Emergency Broadband Benefit," Federal Communications Commission, last accessed March 23, 2021. <https://www.fcc.gov/broadbandbenefit>.
6. Federal Communications Commission, *In the Matter of Lifeline and Link Up Reform and Modernization, Telecommunications Carriers Eligible for Universal Service Support, and Connect America Fund*, Third Report and Order, Further Report and Order, and Order on Reconsideration, WC Docket Nos. 11-42, 09-197, and 10-90, March 31, 2016, ¶ 23. <https://docs.fcc.gov/public/attachments/FCC-16-38A1.pdf>. (hereafter "Lifeline Reform Order")
7. *Ibid.*, ¶¶ 12-17.
8. *Ibid.*
9. See, e.g., "Accelerating America," Verizon, January 2021. <https://www.verizon.com/about/sites/default/files/verizon-accelerating-america-broadband-full-version.pdf>; Joan Marsh, "Making Lifeline a Snap for Eligible Households," AT&T Public Policy, Aug. 4, 2020. <https://www.attpublicpolicy.com/universal-service/making-lifeline-a-snapfor-eligible-households>.
10. C. Douglas Jarrett, "Nearing a Tipping Point on USF Contribution Reform?," *Beyond Telecom Law Blog*, Feb. 19, 2021. <https://www.beyondtelecomlawblog.com/nearing-a-tipping-point-on-usf-contribution-reform>.
11. Federal Communications Commission, *Report and Order and Notice of Proposed Rulemaking, In the Matter of Universal Service Contribution Methodology et al.*, WC Docket No. 06-122 et al., June 21, 2006. <https://docs.fcc.gov/public/attachments/FCC-06-94A1.doc>.
12. Jarrett. <https://www.beyondtelecomlawblog.com/nearing-a-tipping-point-on-usf-contribution-reform>.
13. "Contribution Factors," Universal Service Administrative Company, last accessed March 23, 2021. <https://www.usac.org/service-providers/making-payments/contribution-factors>.
14. Michael A. Williams and Wie Zhao, "NTCA-USF Study," *BRG*, May 7, 2020. <https://www.ntca.org/sites/default/files/documents/2020-05/2020-05-07%20-%20Williams-Zhao%20report%20Final.pdf>.
15. *Ibid.*
16. See, e.g., *Lifeline Reform Order*. <https://docs.fcc.gov/public/attachments/FCC-16-38A1.pdf>.
17. *Ibid.*, ¶ 64.
18. Becky Chao and Claire Park, "The Cost of Connectivity in 2020," Open Technology Institute, July 15, 2020. <https://www.newamerica.org/oti/reports/cost-connectivity-2020>.
19. T. Randolph Bear et al., "Bridging the Digital Divide: What Has Not Worked But What Just Might," *Phoenix Center Policy Paper* No. 56, June 2020, p. 4.
20. "Accelerating America," p. 14. <https://www.verizon.com/about/sites/default/files/verizon-accelerating-america-broadband-full-version.pdf>.
21. Lifeline Reform Order, ¶ 126. <https://docs.fcc.gov/public/attachments/FCC-16-38A1.pdf>.
22. Federal Communications Commission, *In the Matter of Bridging the Digital Divide for Low-Income Consumers, Lifeline and Link Up Reform and Modernization, and Telecommunications Carriers Eligible for Universal Service Support*, Fifth Report and Order, Memorandum Opinion and Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, WC Docket Nos. 17-287, 11-42, and 09-197, Oct. 30, 2019, ¶¶ 5-13. (hereafter "Lifeline Fraud Order").
23. *Ibid.*
24. See, e.g., *Telecommunications: FCC Has Implemented the Lifeline National Verifier but Should Improve Consumer Awareness and Experience*, Government Accountability Office, Jan. 28, 2021.
25. Lifeline Fraud Order.
26. George Ford, "Proposed Reforms to FCC's Lifeline Program Require a Bit More Thought," The Federalist Society, July 22, 2019. <https://fedsoc.org/commentary/fed-soc-blog/proposed-reforms-to-fcc-s-lifeline-program-require-a-bit-more-thought>.
27. See, e.g., "Accelerating America," p. 14. <https://www.verizon.com/about/sites/default/files/verizon-accelerating-america-broadband-full-version.pdf>; Marsh. <https://www.attpublicpolicy.com/universal-service/making-lifeline-a-snapfor-eligible-households>.
28. "Facts about SNAP," USDA Food and Nutrition Service, last accessed March 23, 2021. <https://www.fns.usda.gov/snap/facts>.
29. *Ibid.*
30. *Ibid.*
31. *Ibid.*
32. *Ibid.*
33. *Supplemental Nutrition Assistance Program: Disseminating Information on Successful Use of Data Analytics Could Help States Manage Fraud Risks*, Government Accountability Office, October 2018. <https://www.gao.gov/assets/gao-19-115.pdf>.
34. Michael O'Rielly, "Removing Unnecessary Barriers and Maximizing Competition in USF Auctions," FCC, June 18, 2020. <https://www.fcc.gov/news-events/blog/2020/06/18/removing-unnecessary-barriers-and-maximizing-competition-usf-auctions>.
35. Jonathan Sallet, "Broadband for America's Future: A Vision for the 2020s," Benton Institute for Broadband & Society, October 2019, p. 53. [https://www.benton.org/sites/default/files/BBA\\_full\\_F5\\_10.30.pdf](https://www.benton.org/sites/default/files/BBA_full_F5_10.30.pdf).
36. Letter of Tom Struble and Jeffrey Westling, Committee on Science, Commerce and Transportation, "The State of Broadband Amid the Covid Pandemic," 116<sup>th</sup> Congress, March 24, 2021. [https://www.rstreet.org/wp-content/uploads/2020/05/R-Street-letter\\_Senate-Commerce-broadband-hearing\\_May-2020.pdf](https://www.rstreet.org/wp-content/uploads/2020/05/R-Street-letter_Senate-Commerce-broadband-hearing_May-2020.pdf).