



LINCOLN POLICY

Options to Give the Universal Service Fund a Much-Needed Upgrade

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Executive Summary

As telecommunications revenues decline, a tax to promote universal service – passed onto everyday consumers – continues to increase. The reason: That tax replenishes the Federal Communications Commission’s Universal Service Fund’s annual budget of \$5 billion to \$8 billion. The fund is the commission’s primary tool to close the so-called “digital divide” by supporting four programs that subsidize telephone and broadband services to rural communities, low-income citizens, hospitals, schools, and libraries.

These programs are a continuation of federal initiatives to ensure telecommunications services in rural and impoverished communities that begin early in the 20th century and continue to serve millions of Americans today. The COVID-19 pandemic highlighted the critical need for universal access to broadband as more employees worked from home, students learned from home, and people saw their doctors via telehealth services.

But the Universal Service Fund’s future is in question. If the USF does not receive the same level of annual funding, its operational costs alone will bankrupt the fund. Without these programs, low-income and rural Americans could be left in a digital lurch. And without reform, consumers’ phone bills will rise as carriers are required to increase fees.

This paper examines two broad problems.

First, Congress and the Federal Communication Commission’s current policy for financing the USF faces significant structural challenges. The FCC is running out of money to keep the USF program afloat because telecommunication companies’ revenues are steadily declining, leaving a smaller pool of money to tax. USF taxes on telecommunications service providers increased from 6.8 percent in the first



quarter of 2002 to 33.4 percent in the second quarter of 2021.¹ During this period, telecommunications service providers' revenue declined from \$80 billion in 2002 to a projected \$40 billion this year.² Despite these falling revenues, the FCC still authorized \$8.3 billion to be disbursed to USF programs in 2020-21.³

In August 2020, 3,051 telecom providers contributed to USF.⁴ These companies provide landline phone service, mobile phone service, in-state calling, long distance calling, and voice over internet services.⁵ Given that technology and the way we communicate have evolved, the applicable meaning of a telecommunication service continues to blur. However, the FCC continues to apply taxes to the dwindling revenues of these basic telecommunications services. As more carriers move to internet-based alternatives that fall outside the scope of USF collection requirements, consumers' phone bills will become more expensive. Customers of mobile services carriers will see the greatest increase as they produce the only revenues left for the FCC to tax.⁶ Americans may not think much about this tax as it generally adds \$1 or \$2 per month to their phone bills. But the tax is regressive; the rich and poor alike pay the same amount. Customers from lower-income households also are generally more reliant on these telecommunications services via their mobile services to perform non-telecommunications-based services (e.g., mobile hotspots to compensate for lack of direct connectivity or Wi-Fi). The FCC will need to find other sources to keep up with the increasing cost of USF programs.

Second, the Federal Communications Commission's universal service program is not operating efficiently. Nonpartisan government oversight of USF programs has found waste, fraud, and abuse that also depletes the fund. The Lifeline program, which helps low-income customers with monthly telephone charges as well as connection charges, had improper payment rates of 21.93% in 2017, 18.47% in 2018, and 9.32% in 2019, according to an Inspector General review.⁷ Longstanding and widespread waste and inefficiency in these programs limit the FCC's ability to achieve its mission of promoting universal service.

1 "Contribution Factor & Quarterly Filings - Universal Service Fund (USF) Management Support," Federal Communications Commission, accessed on April 16, 2021, <https://www.fcc.gov/general/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support>.

2 To generate this figure, we added up all of the revenue from 2002 based off of the FCC's Notices of Contribution Factor and Quarterly Filings. We did the same with the FY for 2021.

3 Universal Service Administrative Company (USAC), *2020 Annual Report*, p. 5, https://www.usac.org/wp-content/uploads/about/documents/annual-reports/2020/USAC_Annual_Report_2020.pdf.

4 Universal Service Administrative Company (USAC), *Federal Universal Service Support Mechanisms Quarterly Contribution Base For The Fourth Quarter (2020)*, p. 5, https://ecfsapi.fcc.gov/file/10_9011890921919/USAC%204Q2020%20Universal%20Service%20Contribution%20Base%20Filing.pdf.

5 Federal Communications Commission, FCC 12-46, WC Docket No. 06-122, *Universal Service Contribution Methodology a National Broadband Plan for Our Future*, (2021), p. 12-15, <https://docs.fcc.gov/public/attachments/FCC-12-46A1.doc>.

6 Ibid.

7 "Letter to Chairwoman Carolyn Maloney," Office of the Managing Director, Federal Communications Commission, July 15, 2021, <https://www.fcc.gov/sites/default/files/improper-payments-compliance-report-fy2019-3.pdf>.



There is growing bipartisan recognition on Capitol Hill that the Universal Service Fund and the FCC’s programs to close the digital divide must be reformed. In October, House Energy and Commerce Committee Chair Frank Pallone (D-NJ) commented that: “GAO has found that the high-cost program has been woefully maintained, with basic governance structures either wholly missing or outdated,” citing a new report from the nonpartisan watchdog.⁸ In February, Sen. Roger Wicker (R-MS), the ranking member of the Senate Commerce Committee, and Sen. John Thune (R-SD), wrote to the acting FCC chairwoman asking about the fund’s viability. “The Federal Communications Commission’s (FCC or Commission) USF has played a pivotal role in expanding broadband access to more and more Americans,” the senators wrote. “However, we are concerned about the USF’s long-term sustainability as a mechanism to close the nation’s digital divide.”⁹

This paper examines the USF and its challenges and reviews policy options for addressing them. We suggest that federal legislators and regulators consider the following policy options and reforms to improve the Universal Service Fund.

Specifically, Congress should consider policy changes to address the USF programs’ unsustainable financing and governance challenges:

1. **Congress could make the Universal Service Fund an appropriations line item to finance its programs from general revenues.** Congress could transform the annual USF contribution into a static \$8 billion line-item in annual appropriations bills to ensure that USF and its services are guaranteed, while creating stability in the market. Alternatively, Congress can request a report from the Universal Service Administrative Company that proposes a figure based on its projected needs to keep USF solvent and to operate its programs to promote universal service.
2. **Congress could expand the range of telecommunications service providers subject to USF fees to include “edge providers,” such as companies that provide streaming services.** Congress could also consider including taxing revenue from streaming companies that take up a significant amount of the nation’s bandwidth, thus more equitably financing the USF’s programs to close the digital divide.

8 “Pallone Releases GAO Report Uncovering Fundamental Flaws in Trump FCC’S Handling of Universal Service Fund,” House Energy and Commerce Committee, October 30, 2020, accessed June 30, 2021, <https://energycommerce.house.gov/newsroom/press-releases/pallone-releases-gao-report-uncovering-fundamental-flaws-in-trump-fcc-s>.

9 “Wicker, Thune Raise Concerns About USF Sustainability,” U.S. Senate Committee on Commerce, Science, and Transportation, February 12, 2021, accessed June 30, 2021, <https://www.commerce.senate.gov/2021/2/wicker-thune-raise-concerns-about-usf-sustainability>.



3. **Congress could reform the FCC’s Lifeline program to directly subsidize consumers to promote consumer choice and limit government waste.**

Congress can leverage the experience of social welfare programs such as the Supplemental Nutrition Assistance Program (SNAP) to build out USF’s Lifeline Program, particularly its use of Electronic Benefits Transfer cards for disbursement.

4. **Congress could use the Emergency Broadband Program as a model to create a new program to replace Lifeline.**

Given the EBB Program’s flexibility and scope, it may serve as a suitable template for a more permanent program that can more efficiently allocate services to low-income recipients.

At a minimum, Congress should enact reforms to strengthen oversight and governance, and ensure that scarce USF funds are used appropriately to close the digital divide.

Congress should create an interagency oversight committee for broadband subsidy allocation to limit instances of overbuilding. The FCC, in coordination with the National Telecommunications and Information Administration, should establish an interagency oversight board similar to that of the Interdepartment Radio Advisory Committee. This oversight committee would allow member-federal agencies, responsible for deploying broadband subsidies, to gather and discuss strategies about how to best allocate the funds in the interest of the United States as a whole.

The FCC must create better broadband maps to improve the efficacy of disbursement mechanisms and limit instances of overbuilding. The FCC must prioritize improving the accuracy of its maps to combat issues related to fraud and overbuilding. Although the commission has and is currently working on this issue, its maps are still deficient. Fixing broadband mapping is important to the future of internet access in general but will also ensure the commission gets the funds to people who need these services the most.



I Introduction

The COVID-19 pandemic highlighted the importance of nationwide, universal access to broadband. Without it, people often can't find jobs, children can't get educated while schools are closed, and areas with questionable internet cannot keep up with the pace of the rest of the country. The pandemic also revealed the importance of interagency cooperation and government efficiency, particularly when it comes to allocating funds and resources.

These are just two of the policy and governance challenges facing Congress and the Federal Communications Commission as they consider the future of the Universal Service Fund (USF) and the nation's federal programs intended to close the digital divide.

The USF is a mechanism under which interstate long distance carriers are taxed to subsidize telephone and broadband services to low-income households and high-cost areas.¹⁰The USF is funded by taxes that the FCC levies and telecommunications carriers pass on to their customers. The tax is based on a percentage of carriers' revenues from their telephone offerings to keep the fund at a consistent level of \$5 billion to \$8 billion every year. Take a cursory review of your next phone bill and you'll see a line-item for "USF Charge" or some variant of that phrase.

In 2021, the USF faces significant financing and governance challenges. First, its current funding model is unsustainable. Second, the programs supported by the USF are inefficient and vulnerable to waste, fraud, and abuse, which undermines the national policy goal of supporting universal service.

10 "Universal Service Fund," Federal Communications Commission (FCC), accessed March 2, 2021, <https://www.fcc.gov/general/universal-service-fund>.



This paper examines:

1. What the USF program is.
2. The USF program's current problems and challenges.
3. Potential policy options for Congress and the FCC to address them.

As will be discussed below, this paper proffers policy options that can increase the efficacy of USF without gouging the consumer and help ameliorate its instances of waste, fraud, and abuse.

WHAT IS THE UNIVERSAL SERVICE FUND AND WHAT DOES IT DO?

Although the FCC did not establish USF until 1997, the concept of providing universal service is ingrained into the Communications Act of 1934, which set a goal of “to rapid, efficient, nationwide communications service with adequate facilities at reasonable charges”¹¹ for all Americans. The FCC established the fund pursuant to requirements in the Telecommunications Act of 1996, which expanded the traditional definition of universal service to include, among other things, rural health care providers and eligible schools and libraries.¹² The USF budget is typically between \$5 billion and \$8 billion per year.¹³ The fund provided more than \$73 billion to the states, the District of Columbia, and the territories between 1998 and 2010, according to the Congressional Research Service.¹⁴

As mentioned above, American customers fund the USF through fees paid in their monthly phone bills. According to the FCC, the USF provides support to the American public through four mechanisms:

1. **High-Cost Support Mechanism (or Connect America Fund)** provides support to certain “qualifying telephone companies that serve high-cost areas, thereby making phone service affordable for the residents of these regions.”¹⁵
2. **Lifeline** assists low-income customers by helping to pay for monthly telephone charges as well as connection charges to initiate telephone service.¹⁶

11 Communications Act of 1934, 47 U.S.C. § 151 (1996).

12 Telecommunications Act of 1996, 47 U.S.C. §§ 254(b)(6)(h) (1996).

13 Joan Engebretson, “Is Universal Service Fund in Peril? A Close Look at the Budget – and Where the Money Comes From,” *Telecompetitor*, February 10, 2020, <https://www.telecompetitor.com/is-universal-service-fund-in-peril-a-close-look-at-the-budget-and-where-the-money-comes-from/>.

14 Congressional Research Service, RL33979, *Universal Service Fund: Background and Options for Reform* (2011), p.1.

15 “Universal Service Fund,” Federal Communications Commission (FCC), accessed March 20, 2021, <https://www.fcc.gov/general/universal-service-fund>.

16 *Ibid.*



3. **Rural Health Care Program** allows rural health care providers to pay rates for “telecommunications services similar to those of their urban counterparts, making telehealth services affordable.”¹⁷
4. **E-Rate** provides telecommunication services (e.g., local and long-distance calling, high-speed lines), Internet access, and internal connections (the equipment to deliver these services) to eligible schools and libraries.¹⁸

The FCC delegates responsibility for managing these programs to the Universal Service Administration Company (USAC), an independent non-profit organization.¹⁹ The following is a more detailed overview of each USF program.

HIGH-COST PROGRAM

The federal High-Cost Program (i.e., The Connect America Fund) is a USF subsidy that carriers receive via an FCC auction to build out communications networks to consumers in “rural, insular, and high-cost areas” to ensure they have access to voice and broadband service at rates that “are reasonably comparable to those in urban areas.”²⁰

LIFELINE PROGRAM

The FCC created Lifeline in 1985. Its original mission was to allow eligible telecommunications carriers to provide a discount on telephone services for qualifying low-income consumers in “every state, territory, commonwealth, and on Tribal lands.”²¹ The program has expanded to provide subsidized broadband service. The “FCC authorized \$982 million in support to 6.9 million eligible customers” in 2019.²² According to the FCC, low-income consumers use Lifeline to “connect to jobs, family, and emergency services.”²³ Lifeline recipients receive a measly \$9.25 per month allotment, based on current FCC data.²⁴

17 Ibid.

18 Ibid.

19 “Universal Service Administration Company,” Universal Service Administration Company, accessed June 21, 2021, <https://www.usac.org>.

20 “Universal Service for High Cost Areas - Connect America Fund,” Federal Communications Commission (FCC), last updated June 2, 2021, <https://www.fcc.gov/general/universal-service-high-cost-areas-connect-america-fund>

21 “Lifeline Support for Affordable Communications,” Federal Communications Commission (FCC), last updated May 28, 2021, <https://www.fcc.gov/lifeline-consumers>.

22 U.S. Government Accountability Office, GAO-21-235, *FCC Has Implemented the Lifeline National Verifier but Should Improve Consumer Awareness and Experience* (2021), <https://www.gao.gov/products/gao-21-235>, p.1.

23 “Lifeline Support for Affordable Communications,” Federal Communications Commission (FCC), last updated May 28, 2021, <https://www.fcc.gov/lifeline-consumers>.

24 Ibid.



RURAL HEALTH CARE FUND

The Rural Health Care Program provides funding to eligible health care providers for telecommunications and broadband services that the FCC “deems necessary for the provision of health care.”²⁵ The FCC defines “eligible health care providers” as:

“(1) post-secondary educational institutions offering health care instruction, teaching hospitals, and medical schools; (2) community health centers or health centers providing health care to migrants; (3) local health departments or agencies; (4) community mental health centers; (5) not-for-profit hospitals; (6) rural health clinics; (7) skilled nursing facilities (as defined in section 395i-3(a) of title 42); and (8) consortium of health care providers consisting of one or more entities falling into the first seven categories. In addition, eligible health care providers must be non-profit or public.”²⁶

The Rural Health Care Program is made up of two programs: 1) the Healthcare Connect Fund Program; and 2) the Telecommunications Program.²⁷ The Healthcare Connect Fund Program provides subsidies for broadband to eligible health care providers. Under the Rural Health Care Program, eligible rural health care providers, and those eligible non-rural health care providers that are members of a consortium that exceed 50 percent rural health care provider sites, receive “a 65 percent flat discount on an array of communications services” (e.g., internet access, dark fiber, business data, traditional digital service line, and private carriage service, etc.).²⁸

The FCC capped the Rural Health Fund at \$571 million annually, adjusted for inflation.²⁹

E-RATE PROGRAM

The FCC’s E-Rate program makes telecommunications and information services (e.g., broadband services) more affordable for schools and libraries.³⁰ E-Rate provides eligible schools and libraries “discounts for telecommunications, Internet access, and internal connections.” E-Rate also includes subsidies for broadband and broadband equipment (e.g., Wi-Fi routers).³¹ During the pandemic, the general public could still use schools’

25 “Universal Service for high Cost Areas - Connect America Fund,” Federal Communications Commission (FCC), last updated June 2, 2021, <https://www.fcc.gov/general/universal-service-high-cost-areas-connect-america-fund>.

26 Ibid.

27 “Rural Health Care Program,” FCC, last updated June 1, 2021, <https://www.fcc.gov/general/rural-health-care-program>.

28 Ibid.

29 Ibid.

30 “E-Rate: Universal Service Program for Schools and Libraries,” Federal Communications Commission (FCC), last updated September 16, 2020, <https://www.fcc.gov/consumers/guides/universal-service-program-schools-and-libraries-e-rate>.

31 Ibid.



and libraries' E-Rate supported Wi-Fi networks while on their properties.³² In 2014, the FCC approved regulations prioritizing broadband and Wi-Fi and permitted the use of E-Rate support for libraries to build their own networks.³³

COMPLEMENTARY PROGRAMS TO CLOSE THE DIGITAL DIVIDE

Congress authorized and the FCC established these programs to work in tandem to ensure that all Americans can participate in the digital economy. Each program has a worthwhile mission to promote universal service and help people and communities benefit from 21st century communications. However, as we discuss below, these programs are riddled with structural financing and governance issues. Without significant reforms, the USF and these programs will be ineffective in achieving their stated goals.

32 Angele A. Gilroy, Congressional Research Service, IF11520, *The Universal Service Fund and COVID-19: The FCC and Industry Response* (2020), p.1.

33 Federal Communications Commission, FCC Releases E-Rate Modernization Order, 80 C.F.R. 167 (2015), <https://www.fcc.gov/document/fcc-releases-e-rate-modernization-order>.



II

How USF is Funded & Its Fluctuating Rate

Under the amended Communications Act of 1934, telecommunication companies must report their revenues to the FCC. The FCC uses company-reported revenue data to determine what those telecom carriers will contribute into the USF.³⁴ This amount, which is set as a percentage of their revenue, is called the contribution factor.³⁵

Carriers can pass this tax on to their customers as long as the charge isn't more than the cost to recover.³⁶ Consumers pay this tax as a line-item on their phone bill.³⁷

How is the contribution factor calculated? The USAC (under the jurisdiction of the FCC) bases carriers' contribution on its assessment of carriers' projected revenues.³⁸ Every quarter, the USAC makes an educated guess about how much money the carriers will make on telecommunications services³⁹ based on companies' revenues during the prior quarter.⁴⁰

34 Costs of Number Administration, 47 C.F.R. § 52.17, <https://www.govinfo.gov/app/details/CFR-2011-title47-vol3/CFR-2011-title47-vol3-sec52-17>.

35 Contribution Methodology & Administrative Filings, Federal Communications Commission (FCC), last updated, June 1, 2021, <https://www.fcc.gov/general/contribution-methodology-administrative-filings>.

36 Federal Communications Commission, FCC 12-46, WC Docket No. 06-122, *Universal Service Contribution Methodology a National Broadband Plan for Our Future*, (2021), p. 134-135, <https://docs.fcc.gov/public/attachments/FCC-12-46A1.doc>.

37 Ibid.

38 Computations Of Required Contributions to Universal Service Support Mechanisms (2004), 47 C.F.R. § 54.709(a). <https://www.govinfo.gov/content/pkg/CFR-2004-title47-vol3/pdf/CFR-2004-title47-vol3-sec54-709.pdf>.

39 *Proposed Second Quarter 2021 Universal Service Contribution Factor*, CC Docket No. 96-45, Public Notice, DA 21-308, p. 2, (2021). <https://docs.fcc.gov/public/attachments/DA-21-308A1.pdf>.

40 Ibid.



Then the FCC uses two equations to calculate the quarterly contribution factor ---

1. $(\text{Previous Quarter Revenues} - \text{Projected Revenue Requirement}) * (100\% - 1\%)$
= Adjusted Quarterly Contribution Base
2. $\frac{\text{Total Program Collection}}{\text{Adjusted Quarterly Contribution Base}}$ = the contribution factor percentage⁴¹

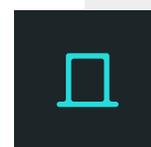
Unlike most government tax and spending programs, the FCC’s contribution factor fluctuates on a quarterly basis. The table below demonstrates contribution factor increases since 2011. The drastic changes per quarter, especially over the last five years, represents a higher tax that telecom companies must pay into this fund.

Table 1—Universal Service Fund Contribution Factor, 2011-2020⁴²

| Year | Quarter | Contribution Factor (Percentage) |
|------|----------------|-------------------------------------|
| 2011 | First Quarter | 15.5 |
| | Second Quarter | 14.9 |
| | Third Quarter | 14.4 |
| | Fourth Quarter | 15.3 |
| 2012 | First Quarter | 17.9 |
| | Second Quarter | 17.4 |
| | Third Quarter | 15.7 |
| | Fourth Quarter | 17.4 |
| 2013 | First Quarter | 16.1 |
| | Second Quarter | 15.5 |
| | Third Quarter | 15.1 |
| | Fourth Quarter | 15.6 |
| 2014 | First Quarter | 16.4 |
| | Second Quarter | 16.6 |
| | Third Quarter | 15.7 |
| | Fourth Quarter | 16.1 |

⁴¹ Ibid.

⁴² “Contribution Factor & Quarterly Filings - Universal Service Fund (USF) Management Support,” Federal Communications Commission, accessed on April 16, 2021, <https://www.fcc.gov/general/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support>.



| | | |
|------|----------------|------|
| 2015 | First Quarter | 16.8 |
| | Second Quarter | 17.4 |
| | Third Quarter | 17.1 |
| | Fourth Quarter | 16.7 |
| 2016 | First Quarter | 18.2 |
| | Second Quarter | 17.9 |
| | Third Quarter | 17.9 |
| | Fourth Quarter | 17.4 |
| 2017 | First Quarter | 16.7 |
| | Second Quarter | 17.4 |
| | Third Quarter | 17.1 |
| | Fourth Quarter | 18.8 |
| 2018 | First Quarter | 19.5 |
| | Second Quarter | 18.4 |
| | Third Quarter | 17.9 |
| | Fourth Quarter | 20.1 |
| 2019 | First Quarter | 20.0 |
| | Second Quarter | 18.8 |
| | Third Quarter | 24.4 |
| | Fourth Quarter | 25.0 |
| 2020 | First Quarter | 21.2 |
| | Second Quarter | 19.6 |
| | Third Quarter | 26.5 |
| | Fourth Quarter | 27.1 |

Source: "Contribution Factor & Quarterly Filings - Universal Service Fund (USF) Management Support," Federal Communications Commission, accessed on April 16, 2021.

Unfortunately, as methods of communications are evolving, the revenue from these specific telecommunications services are decreasing. The following table represents the revenues of the 3,051 telecommunications companies that contributed to the USF based on data from the 2020 USAC Monitoring Report.



Table 2—Revenues by Service Type 2011-2019 (Millions of Dollars) ⁴³

| | Local Service and Payphone Revenues | Mobile Revenues | Toll Service Revenues | Universal Service Surcharges | Total |
|------|--|------------------------|------------------------------|-------------------------------------|------------------|
| 2011 | 98,313 | 107,392 | 46,347 | 8,986 | 261,038 ↓ |
| 2012 | 95,455 | 105,147 | 46,159 | 9,964 | 256,725 ↓ |
| 2013 | 93,105 | 98,160 | 42,837 | 8,986 | 243,088 ↓ |
| 2014 | 90,969 | 86,996 | 41,450 | 9,083 | 228,499 ↓ |
| 2015 | 90,495 | 75,262 | 39,678 | 9,041 | 214,477 ↓ |
| 2016 | 87,162 | 65,636 | 36,342 | 9,135 | 198,276 ↓ |
| 2017 | 83,572 | 56,952 | 34,075 | 8,319 | 182,918 ↓ |
| 2018 | 77,048 | 52,890 | 31,885 | 8,438 | 170,262 ↓ |
| 2019 | 72,964 | 39,631 | 29,405 | 8,447 | 150,447 ↓ |

Source: Universal Service Administrative Company (USAC), Universal Service Monitoring Report (2020), p. 9

As the table shows, money from telecommunication revenues has been decreasing over the last 10 years. It follows that the same 2020 USAC Monitoring report shows USF contributions have decreased.

| USF CONTRIBUTION BASE BY YEAR 2011-2019 (In Millions of Dollars) | |
|---|----------|
| <i>How much they contributed to the USF</i> | |
| 2011 | 65,966 ↓ |
| 2012 | 65,914 ↓ |
| 2013 | 64,224 ↓ |
| 2014 | 62,900 ↓ |
| 2015 | 60,403 ↓ |
| 2016 | 57,524 ↓ |
| 2017 | 53,284 ↓ |
| 2018 | 50,919 ↓ |
| 2019 | 45,255 ↓ |

Source: Universal Service Administrative Company (USAC), Universal Service Monitoring Report (2020), p. 17.

⁴³ Universal Service Administrative Company (USAC), Universal Service Monitoring Report (2020), p. 9, <https://docs.fcc.gov/public/attachments/DOC-369262A1.pdf>.



It should be noted that every quarter, alongside the contribution factor, the USAC also calculates a circularity factor that is intended to lower the cost that the carriers pass on to their customers.⁴⁴ The purpose of this factor is to lower the cost that the carriers pass on to their customers.

Since 2002, the USF tax on revenues from telecommunications services has steadily risen from 6.8% to an astonishing 31.8% in Q3 of 2021.⁴⁵ However, the circularity factor discount can only do so much—consumers are more than likely going to pay far higher costs in the next few quarters even with USAC’s discount. The following table that outlines how the contribution factors and the circularity factors have both substantially increased.

Table 3—Comparing the Contribution Factor & Circularity Factor ⁴⁶
(Noted by 4th Quarter of each year)

| Comparing the Contribution Factor & Circularity Factor (Noted by 4th Quarter of each year) | | |
|--|--|---|
| | Contribution Factor (Percentage) | Circularity Factor (Percentage) |
| 2012 | 17.4 | 14.6 |
| 2013 | 15.6 | 13.3 |
| 2014 | 16.1 | 13.3 |
| 2015 | 16.7 | 14.1 |
| 2016 | 17.4 | 14.7 |
| 2017 | 18.8 | 15.7 |
| 2018 | 20.1 | 16.5 |
| 2019 | 25 | 19.9 |
| 2020 | 27.1 | 21.2 |

Source: “Contribution Factor & Quarterly Filings - Universal Service Fund (USF) Management Support,” Federal Communications Commission.

44 “Contribution Factors,” Federal Communications Commission, accessed June 11, 2021, <https://www.usac.org/service-providers/making-payments/contribution-factors/>.

45 “Contribution Factor & Quarterly Filings - Universal Service Fund (USF) Management Support,” Federal Communications Commission, accessed April 16, 2021, <https://www.fcc.gov/general/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support>.

46 “Contribution Factor & Quarterly Filings - Universal Service Fund (USF) Management Support,” Federal Communications Commission, accessed on April 16, 2021, <https://www.fcc.gov/general/contribution-factor-quarterly-filings-universal-service-fund-usf-management-support>.



Taken together, decreased taxable revenues and increased taxes on those revenues creates an untenable way to keep USF solvent. As Daniel Lyons of the American Enterprise Institute rightfully points out, “we’ve increased the numerator and decreased the denominator, with predictable results: The surcharge has risen precipitously.”⁴⁷ What is worse is that the USF tax will likely continue to rise under this regime.

Aside from the dwindling pool of money the USF is pulling from, the other main issue is that the contribution level fluctuates greatly from quarter to quarter. This method of funding is highly unstable for all parties involved -- the carriers, the customers, and the bureaucracy.

For carriers, this funding mechanism becomes an extraordinary expense, especially for smaller, rural carriers. Based on the current quarterly USF rate of approximately 31%, a company enterprise must contribute an additional \$3.1 million to the USF for every \$10 million a business spends on telecom services. Coupling this with other taxes such as property and sales taxes, the cost to build out networks increases exponentially. In addition, the USF tax fluctuates unpredictably. For example, the USF factor for the fourth quarter of 2020 was 27.1%, a moderate increase from the 26.6% contribution factor in the previous quarter.⁴⁸ But in the first quarter of 2021, the FCC raised the contribution factor to 31.8%, or an increase of more than 17%.

For customers, this funding mechanism is burdensome. It disproportionately affects low-income citizens, because the tax is indiscriminate of citizens’ income.⁴⁹ Whether you are wealthy or poor, you pay into the system at the same rate. The tax does not consider a person’s geographic area either. A low-income citizen in New York City is essentially paying to subsidize a buildout in Jackson Hole, Wyo.—a notably wealthy (albeit rural) area. The FCC has made rural areas a primary focus for some of its programs (i.e., High-Cost and Rural Health Fund), while many low-income urban areas remain underserved. This means the low-income citizen in New York is paying into a fund to subsidize rural broadband infrastructure from which he or she will never benefit. The FCC is essentially deploying telephone and broadband services by over-taxing the very people who need it the most.

47 Daniel Lyons, “A Common-sense opportunity to reform the Universal Service Fund,” *AEIdeas* (blog), American Enterprise Institute, January 28, 2021, <https://www.aei.org/technology-and-innovation/a-common-sense-opportunity-to-reform-the-universal-service-fund/>.

48 *Compare the Office of Managing Director (OMD) announces that the proposed universal service contribution factor for the first quarter of 2021 will be 0.271 or 27.1 percent*, CC Docket No. 96-45, Public Notice, 35 FCC Rcd 10271 (13) (2020) (setting the rate at 27.1%); *with the Office of Managing Director (OMD) announces that the proposed universal service contribution factor for the first quarter of 2021 will be 0.266 or 26.6 percent*, CC Docket No. 96-45, Public Notice, 35 FCC Rcd 5839 (7) (2020) (setting the rate at 26.6%).

49 Scott Wallsten, “Rural Broadband Subsidies: The Gift that Keeps on Giving,” Technology Policy Institute,” Technology Policy Institute, January 22, 2018, accessed June 30, 2021, <https://techpolicyinstitute.org/publications/broadband/rural-broadband-subsidies-the-gift-that-keeps-on-giving/>.



THE CURRENT PATH IS UNSUSTAINABLE

The FCC needs to restructure its contribution mechanism, because it requires the contribution factor to go up for telecom carriers and consumers. Carriers providing information services, such as broadband, do not pay into the fund.⁵⁰ The USF is funded by assessing carrier revenues for telecommunications services, such as toll-free access, international voice calls, multiprotocol label switching access, etc.⁵¹ However, it is worth reiterating that carriers' revenues from those services have been declining significantly for the last five years while USF contributions have increased.

Telecommunications and broadband providers have a complicated business model, and a floating contribution factor furthers their complications when providing services. For one, carriers are both service providers and responsible for building their infrastructure. When each carrier decides to serve a particular area, it must assess the consumer base, local building requirements, and the terrain. Adding a tax factor that fluctuates every quarter makes entering into unserved markets incredibly expensive. Without making significant reforms, carriers' ability to reach these under- and unserved areas will be near impossible.

50 Federal Communications Commission (FCC), Restoring Internet Freedom, WC Docket No. 17-108,⁷ Declaratory Ruling, Order, and Report and Order, 33 FCC Rcd 311(1) (2017) (Reclassifying BIAS as an information service), <https://docs.fcc.gov/public/attachments/DOC-347927A1.pdf>.

51 FCC, 2021 Telecommunications Reporting Worksheet Instructions-Form 499-A, Universal Service Administrative Company (2020) (RIF Order), <https://www.usac.org/wp-content/uploads/service-providers/documents/forms/2021/2021-FCC-Form-499A-Form-Instructions.pdf>.



III

Instances of Waste, Fraud, and Abuse

Outside of these structural financing problems, USF has significant and longstanding issues with waste, fraud, and abuse on a grand scale. The USF has been a thorn in Congress's side for at least the past 15 years. Congress has attempted to address the issue by holding a host of hearings and directing nonpartisan watchdogs to conduct oversight, but meaningful reforms have yet to be enacted.^{52 53}

In 2006, USAC joined with the Office of the Inspector General to initiate “a large-scale beneficiary audit program,” which found extraordinary amounts of waste. More than 9% of payments in the USF programs were incorrect, which amounts to hundreds of millions of dollars in misspent funds.⁵⁴

The Inspector General found:

- 5.5% or \$385 million error in contribution payments.
- 9.5% or \$75.5 million in incorrect payments to the Lifeline program.
- 12.9% or \$210 million in incorrect payments to the E-Rate program.
- 16.6% of \$618 million in incorrect payments to the High-Cost program.
- 20.6% or \$4.5 million in incorrect payments to the Rural Health Care program.⁵⁵

52 Permanently Exempting the Universal Service Fund from Portions of The Anti-deficiency Act, S. Hrg. 109-39, 109th Congress (2005) <https://www.congress.gov/event/109th-congress/senate-event/Lc13285/Text>, <https://www.wicker.senate.gov/public/index.cfm/press-releases?ID=EED2F9C7-76B9-4E61-8BC8-F5E2806EF5A3>.

53 U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Communications and Technology, “Oversight of FCC Budget and Management,” September 17, 2014, <https://www.govinfo.gov/content/pkg/CHRG-113hhrg93843/html/CHRG-113hhrg93843.htm>.

54 Kent R. Nilsson, *Office of the Inspector General Semiannual Report to Congress (April 1, 2007 – September 30, 2007)*, Semi-annual Report to Congress FCC (2007), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-278589A1.pdf.

55 Ibid.



In other words, USF had almost \$2 billion in incorrect payments in one year. Americans are paying for this waste through fees on their phone bill.

The issues continued to be so rampant that, in 2014, the FCC created the USF Strike Force to expose entrenched issues of waste, fraud, and abuse.⁵⁶ Here are some key examples of the types of fraud USF experiences:

- Blanca Telephone Company was required to repay \$6,748,280 in high-cost universal service fees because the company unlawfully included services that USF does not support into its calculation in its high-cost application.⁵⁷ This determination took close to 12 years to resolve.
- The New York City school district had to pay the FCC \$3 million for violating competitive bidding rules of the FCC’s E-rate program.⁵⁸ The Commission intends the competitive bidding rules to ensure that qualifying schools and libraries petitioning for E-rate-eligible goods and services treat price as the primary factor when choosing their service provider. A school district investigation concluded that Willard “Ross” Lanham, a consultant who served as project manager for NYC’s Project Connect, overbilled the New York school district from 2002 to 2008 through a subcontracting scheme. The school district had to withdraw and cancel all E-rate funding requests from 2011 to 2013 and had to withdraw claims for any unreimbursed E-rate funding for services it purchased from 2002 to 2010.
- “Companies may have an incentive to enroll as many customers as possible” in the Lifeline program, the Government Accountability office reported in 2017 after it could not account for 36% of the listed program subscribers.⁵⁹ That same year, the Inspector General found 50,000 deceased people enrolled in the program by various carriers.⁶⁰ A 2018 advisory notice made note of at least \$330 million in incorrect payments⁶¹ and a significant amount of deceptive Lifeline enrollment practices, such as name manipulation, address manipulation,

56 Federal Communication commission (FCC), *FCC Chairman Wheeler Announces Universal Service Fund Strike Force* (2014), <https://www.fcc.gov/document/fcc-chairman-wheeler-announces-universal-service-fund-strike-force>.

57 *In the Matter of Federal-State Board on Universal Service Blanca Telephone Company Seeking Relief from the June 22, 2016 Letter Issued by the Office of Managing Director Demanding Repayment of a Universal Service Fund Debt Pursuant to the Debt Collection Improvement Act*, CC Docket 96-45, Second Order on Reconsideration and Order, 35 FCC Rcd 2641 (3), para. 8 (2020), <https://docs.fcc.gov/public/attachments/FCC-17-162A1.docx>.

58 Federal Communications Commission Consent Decree with New York City Department of Education, DA 15-1434 p. 3, <https://www.commlawmonitor.com/wp-content/uploads/sites/811/2015/12/DA-15-1434A1.pdf>.

59 FCC Office of Inspector General, *Advisory Regarding Fraud in the Lifeline Program*, (2019), p. 1-4, <https://docs.fcc.gov/public/attachments/DOC-357035A1.pdf>.

60 Ibid.

61 Ibid.



and carriers adding non-qualifying services.⁶² Although the FCC attempted to address these concerns by implementing certain enrollment processes and reforms, the program needs a serious upgrade.⁶³

The unfortunate consequence of this waste, fraud, and abuse is that the networks promised to low-income and underserved areas are never realized. Billions of dollars have been wasted by either self-serving persons or entities availing themselves of public funds or inefficiently spending resources to build out in served areas, also known as “overbuilding.”

RECENT POLICY DEVELOPMENTS DURING THE COVID-19 PANDEMIC

Outside of USF programs, Congress allocated a slew of programs to promote connectivity during the pandemic under the CARES Act. For example, the CARES Act appropriates \$25 million to the budget for the Rural Utility Service (RUS) Distance Learning, Telemedicine and Broadband Program.⁶⁴ The CARES Act also allocated \$200 million to the FCC to support “efforts of health care providers” to address the COVID-19 pandemic by providing telecommunications services, information services, and devices and equipment necessary for telehealth services during an emergency period.⁶⁵ The CARES Act provided \$100 million for additional grants to service providers under the RUS broadband deployment pilot program, ReConnect, for infrastructure projects.⁶⁶ The Act appropriates \$50 million to the Institute of Museum and Library Services for response to COVID-19, which states, territories and tribes could use to expand digital network access and to purchase equipment.⁶⁷ These programs are only to last during an emergency period, which is defined under section 1135(g)(1) of the Social Security Act.⁶⁸

However, two programs are still in effect: 1) the Emergency Broadband Benefit (EBB) Program; and 2) the Emergency Connectivity Fund (ECF) Program.

62 Ibid.

63 FCC Bridging the Digital Divide for Low-Income Consumers, 47 C.F.R. 54, (2019), <https://www.federalregister.gov/documents/2019/12/27/2019-27221/bridging-the-digital-divide-for-low-income-consumers>.

64 “Distance Learning & Telemedicine Grants,” U.S. Department of Agriculture, accessed June 30, 2021, <https://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants>.

65 “COVID-19 Telehealth Program (Invoices & Reimbursements),” Federal Communications Commission, accessed June 30, 2021, <https://www.fcc.gov/covid-19-telehealth-program-invoices-reimbursements>.

66 “Telecom Programs,” U.S. Department of Agriculture, accessed June 30, 2021, <https://www.rd.usda.gov/programs-services/all-programs/telecom-programs>.

67 “Federal Government Invests \$50M in Museums, Libraries to Address Digital Divide During COVID-19,” Institute of Museum and Library Services, accessed March 27, 2020, <https://www.imls.gov/news/federal-government-invests-50m-museums-libraries-address-digital-divide-during-covid-19>.

68 Social Security Act, 2 U.S.C. § 1320b-5 (g)(1) (2020).



In December 2020, Congress passed the Consolidated Appropriations Act of 2021 (CAA), which established the Emergency Broadband Connectivity Fund and allocated \$3.2 billion to help subsidize broadband services for qualified applicants. The CAA required the FCC to establish the EBB Program to provide a \$50 discount on low-income household’s broadband services and specific devices, which USAC administered.⁶⁹ The EBB Program requires USAC to reimburse qualifying carriers for providing such reimbursement.⁷⁰ The EBB Program will end either when the FCC has exhausted the funds or six months after “the end of the public health emergency.”⁷¹

In May 2021, the FCC launched its Connectivity Fund Program pursuant to the American Rescue Plan Act of 2021.⁷² Congress allocated \$7.17 billion to provide schools and libraries with equipment, Wi-Fi hotspots, and broadband.⁷³ The initial program application filing window will open on June 29 and close on August 13.⁷⁴

All of these programs are temporary, but some have suggested using the EBB program as a model to replace more permanent programs—like Lifeline, which this paper evaluates below.⁷⁵

69 “Emergency Broadband Benefit Program,” Federal Communications Commission, accessed June 30, 2021, <https://www.fcc.gov/emergency-broadband-benefit-program>.

70 Ibid.

71 Ibid.

72 “FCC to Launch \$7.17 Billion Connectivity Fund Program,” Federal Communications Commission, May 10, 2021, <https://docs.fcc.gov/public/attachments/DOC-372311A1.pdf>.

73 Ibid.

74 “Emergency Connectivity Fund,” Federal Communications Commission, accessed June 30, 2021, <https://www.fcc.gov/emergency-connectivity-fund>.

75 Brian E. Humphreys, Congressional Research Service, IN11612, *The Emergency Broadband Benefit: Implementation and Future Policy Discussion* (2021), p. 3.



IV Policy Approaches

Given the concerns outlined above, Congress and the FCC could consider the following to address these two fundamental problems.

CONGRESS COULD MAKE USF AN APPROPRIATIONS LINE ITEM

Congress could transform USF funding into a static \$8 billion line-item (the high-end of the current USF budget) in an appropriations bill to ensure that the fund and its services are guaranteed while creating stability in the market. Alternatively, Congress could determine the USF budget by asking USAC to propose a figure based on the projected need to keep USF solvent. The committee of jurisdiction should most likely be the subcommittees on Financial Services and General Government in the House and Senate.

However, Congress making USF an appropriations line-item is not a silver bullet. For one, carriers that build multi-million-dollar networks need predictability to know how to budget their funding (or more, aptly, reimbursement) streams for each fiscal year. Another issue for smaller carriers would be seeking loans from government and private lending institutions that have terms from 10 to upwards of 20 years. Lenders may find it difficult to lend to these small carriers if the carriers have to rely on Congress to appropriate dollars, especially when one considers Congress's mercurial track record of getting a budget completed on time.

However, making the USF a congressional appropriation would "subject the program to direct congressional oversight, which would improve transparency and reduce the risk of waste, fraud, and abuse," points out Daniel Lyons of the American Enterprise Institute.⁷⁶ Mr. Lyons also notes that such a measure could help the government "avoid

76 Lyons, *A Common-sense opportunity to reform the Universal Service Fund*, op. cit.



the market distortion of trying to tax some goods but not others (substitutes) in order to fund the program.”⁷⁷ Moreover, a congressional appropriation “could help alleviate the regressive high tax on a small group of consumers,” the National Taxpayers Union notes.⁷⁸

With all of these considerations in mind, one thing is clear: The status quo is unsustainable. An annual appropriation may resolve many of the fund’s current issues related to floating contribution rates. There is little empirical evidence that the commission’s floating contribution rate is any more reliable for smaller carriers than a congressional appropriation would be. Congress may consider guaranteeing an annual minimum for broadband spending to ensure that smaller carriers can adequately guarantee to their lenders that they can repay their loans. With that said, creating a designated appropriation line-item for USF is an avenue for Congress to explore.

CONGRESS COULD PASS LEGISLATION FOR EDGE PROVIDERS TO CONTRIBUTE INTO USF

Assuming Congress does not make USF a congressional appropriation, the FCC and/or Congress could reform current policy to expand the base of providers that can be taxed to fund the USF. The following is a discussion of how both the FCC and Congress could enact this reform.

CONGRESS COULD HAVE EDGE PROVIDERS CONTRIBUTE INTO USF

Congress should consider requiring streaming companies that take up a significant amount of the nation’s bandwidth to contribute to the USF.

Without serious reforms to this program, the FCC may have to find non-traditional contributors, such as edge providers, to ensure the fund is not depleted. This is especially true if it will be used to subsidize broadband services and builds. Recently, FCC Commissioner Brendan Carr suggested edge providers may be a prime candidate as these companies can take up a significant amount of the U.S. national bandwidth with their streaming services.⁷⁹ Netflix used 19.1% of total downstream traffic across the U.S. in 2018 and, at times, could reach up to 40% of total downstream traffic in

77 Ibid.

78 Will Yepez, “The Universal Service Fund Is On the Brink, But It’s not Too Late to Save It,” National Taxpayers Union, April 15, 2021, <https://www.ntu.org/publications/detail/the-universal-service-fund-is-on-the-brink-but-its-not-too-late-to-save-it>.

79 Brendan Carr, “Ending Big Tech’s Free Ride,” *Newsweek*, May 24, 2021, <https://www.newsweek.com/ending-big-techs-free-ride-opinion-1593696>.



some fixed networks,⁸⁰ according to Sandvine. Amazon Prime Video generated 7.7% and Google’s YouTube used 7.5% during peak hours.

Barring legislation, the current statutory framework poses a significant challenge to require edge providers to contribute to the fund. Section 254(d) of the Communications Act requires contributions only from telecommunications carriers that provide interstate telecommunications services.⁸¹ The statute requires the FCC to establish a “specific, predictable, and sufficient mechanism” to make USF contributions.⁸² However, the FCC could look into the extent to which edge providers can contribute on a limited basis. Given that edge providers provide services that are akin to telecommunications services (e.g., Google Voice, Microsoft’s Skype, or Apple’s FaceTime), the FCC could reasonably classify those services as such to include those companies’ revenues from those particular services in the USF pool.

Another potential problem: under its current rules, the FCC classifies broadband services as information services.⁸³ The FCC cannot collect from information services, like broadband, or edge services, like websites, apps, or other internet content-based services, without a full reclassification of those services. However, if the FCC decides to reclassify these services, it could reasonably create a mechanism where carriers can collect from tech companies, because broadband services would be telecommunication services and subject to USF. Hence, under Title II, there is a better argument that tech companies should pay into the fund indirectly vis-à-vis a cost-sharing arrangement through the carriers. Given the associated regulatory costs for ISPs when the commission reclassifies their services to a Title II service, the commission should allow ISPs to pass on their USF costs to edge providers based on how much bandwidth they use.

Given the current regulatory constraints, Congress is the best forum to include edge providers’ revenues into USF. It would make the most sense for Congress to either set a fixed budget to fund USF or have USAC provide an annual budgetary recommendation to the FCC. If Congress chose the former, then it should set the fixed budget at \$8 billion as that is the higher end of the current USF budget. Moreover, Congress could expand the participating companies to those streaming companies taking up a significant amount of the nation’s bandwidth. The legislation

80 Sandvine, “The Global Internet Phenomena Report,” (October 2018), <https://www.sandvine.com/hubfs/downloads/phenomena/2018-phenomena-report.pdf>.

81 United States Code, Title 47 - Telegraphs, Telephones, and Radiotelegraphs, 47 U.S.C. § 254(d), p. 90, <https://www.govinfo.gov/content/pkg/USCODE-2011-title47/pdf/USCODE-2011-title47-chap5-subchapII-partII-sec254.pdf>.

82 Ibid.

83 *Restoring Internet Freedom*, WC Docket No. 17-108, Declaratory Ruling, Order, and Report and Order, 33 FCC Rcd 311(1) (2017) (Reclassifying BIAS as an information service), <https://docs.fcc.gov/public/attachments/DOC-347927A1.pdf>.



should target companies that exceed an average national revenue of \$100 billion per year and take up 5% or more of the national bandwidth. For example, a report found that five companies (Netflix, YouTube (Alphabet/Google), Amazon Prime, Disney+/Hulu, and Microsoft Xbox) take up more than 75% of total network traffic.⁸⁴ Moreover, Facebook, Apple, Amazon, Netflix and Google generated nearly \$1 trillion in revenues in 2020 by leveraging broadband services.⁸⁵

Having these edge companies pay into USF in this way would accomplish two goals: 1) it would not severely cut into these edge companies' revenue; and 2) it would replenish the fund without overburdening consumers. However, consumers may still have to pay, if these edge providers pass on their costs to them. This may be a far cheaper option for the consumer than the status quo, however, because there are more users of streaming services than there are U.S. households with an internet plan. For example, in the U.S., there are 264 million unique Google users,⁸⁶ 74.4 million Netflix subscribers,⁸⁷ 147 million Amazon Prime members,⁸⁸ 100 million Disney Plus subscribers,⁸⁹ 100 million Xbox subscribers,⁹⁰ and 223 million Facebook users.⁹¹ Compare that with the 105.82 million fixed-broadband subscribers in the U.S.⁹² As Commissioner Carr notes, it would take .009% of tech companies' revenue to cover the current cost of USF, which would yield a virtually nominal fee for the consumer.⁹³ Given that most of these edge providers exploit a range of tax loopholes, they are sure to have money in their coffers without passing any cost onto consumers.⁹⁴

84 Roslyn Layton & Petrus Potgieter, "Rural Broadband and the Unrecovered Cost of Streaming Video Entertainment," ITS Gothenburg (June 2021), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3820644.

85 Brendan Carr, "Ending Big Tech's Free Ride," *Newsweek*, May 24, 2021, <https://www.newsweek.com/ending-big-techs-free-ride-opinion-1593696>.

86 Deyan Georgiev, "111+ Google Statistics and Facts That Reveal Everything About the Tech Giant," *Review42 (blog)*, February 19, 2021, <https://review42.com/resources/google-statistics-and-facts>.

87 Julia Stoll, "Number of Netflix paying streaming subscribers in the United States and Canada from 1st quarter 2013 to 1st quarter 2021," *Statista*, April 20, 2021, <https://www.statista.com/statistics/250937/quarterly-number-of-netflix-streaming-subscribers-in-the-us/>.

88 Fareeha Ali, "Amazon Prime reaches 200 million members Worldwide," *Digital Commerce 360*, April 16, 2021, <https://www.digitalcommerce360.com/article/amazon-prime-membership>.

89 Julia Alexander, "Disney Plus surpasses 100 million subscribers," *The Verge*, March 9, 2021, <https://www.theverge.com/2021/3/9/22320332/disney-plus-100-million-subscribers-marvel-star-wars-wandavision>.

90 J. Clement, "Number of monthly active users (MAU) of Microsoft Xbox Live from fiscal January 2016 to December 2020," *Statista*, April 20, 2021, <https://www.statista.com/statistics/531063/xbox-live-mau-number/>.

91 H. Tankovska, "Number of Facebook users in the United States from 2017 to 2025," *Statista*, May 20, 2021, <https://www.statista.com/statistics/408971/number-of-us-facebook-users/>.

92 "Number of fixed broadband subscribers in the United States from 2010 to 2020, by quarter," *Statista*, last updated June 9, 2021, <https://www.statista.com/statistics/217938/number-of-us-broadband-internet-subscribers/>.

93 Brendan Carr, "Ending Big Tech's Free Ride," *Newsweek*, May 24, 2021, <https://www.newsweek.com/ending-big-techs-free-ride-opinion-1593696>.

94 Erik Sherman, "A New Report Claims Big Tech Companies Used Legal Loopholes to Avoid Over \$100 Billion in Taxes. What Does That Mean for the Industry's Future?," *Fortune*, December 6, 2019, <https://fortune.com/2019/12/06/big-tech-taxes-google-facebook-amazon-apple-netflix-microsoft/>.



CONGRESS COULD REFORM LIFELINE SO THAT THE SUBSIDY GOES DIRECTLY TO CONSUMERS TO PROVIDE MORE CONSUMER CHOICE AND LIMIT GOVERNMENT WASTE

Congress can leverage the experience of social welfare programs like the U.S. Department of Agriculture's SNAP to improve the efficiency and administration of the Lifeline Program, particularly the former program's use of EBT cards for disbursement. The FCC should still be the administrator of Lifeline, but Congress should permit the FCC to provide a voucher-based system that gives direct aid to consumers. This type of program will provide low-income consumers more agency in deciding which services and provider best suits their needs.

Aside from funding, larger issues with the USF includes the program's waste and fraud. As SNAP has evolved, it has reduced its bureaucracy, provided direct aid to the consumer, and reduced waste. It is a great example of a federal program that had to change its model to become more efficient; the FCC would do well to learn similar lessons.

LIFELINE REFORM

One consistent criticism about the Lifeline program is how few people use it. Access to services is one part of the issue; the other is getting people to sign up. The Lifeline Broadband Pilot program is an example.⁹⁵ The telecom company XChange sent out thousands of invitations, expecting at least 5,000 people to sign-up.⁹⁶ Only 214 did.⁹⁷ Telecom companies such as Frontier, PCI, Troy Cable, and VT Telephone had the same experience: Fewer than 200 people signed up to each company's reduced-price program.⁹⁸ The FCC gives the subsidy to the provider once the agency has determined that it qualifies as an Eligible Telecommunications Carrier. At that point, it is up to the carrier to determine a subscriber's eligibility, which is not necessarily their core competency and has led to fraudulent activities from bad actors.

As with all services, consumers need an incentive. How can the FCC incentivize consumers to participate? One way is to give the consumer more agency to

95 Federal Communications Commission, Wireline Competition Bureau Staff Report Low-Income Broadband Pilot Program, (2015), p. 9, https://apps.fcc.gov/edocs_public/attachmatch/DA-15-624A1.pdf.

96 Scott Wallsten, "Learning from the FCC's Lifeline Broadband Pilot Projects," Technology Policy Institute (March 2016), p. 4-5, https://www.researchgate.net/profile/Scott-Wallsten/publication/301698512_Learning_from_the_FCC%27s_Lifeline_Broadband_Pilot_Projects/links/5723718308ae262228aa6ab9/Learning-from-the-FCCs-Lifeline-Broadband-Pilot-Projects.pdf.

97 Ibid.

98 Ibid.



determine a plan and provider that works best for them. Congress can leverage the experience of SNAP’s Electronic Benefits Transfer (EBT) cards to reform the Lifeline Program to establish a consumer-centered disbursement. This accomplishes two goals. First, it would provide the consumer more freedom to decide what service and provider they want. Second, it would help to limit fraud. The first rationale should be self-evident. Using an EBT, a person can go to any qualifying broadband provider they wish and choose a plan that best suits their needs. Moreover, Congress could consolidate the Lifeline and SNAP forms as both programs have almost identical requirements.

In terms of limiting fraud, EBT cards have a proven track record. In the SNAP program, the use of EBT cards has decreased the instances of fraud dramatically over the past couple of decades.⁹⁹ The fraud rate fell from about 4 cents on the dollar in 1993 to less than 1.5% by 2017.¹⁰⁰ Although an EBT card may introduce some new issues for the Lifeline program, it is a far superior product to the status quo. However, SNAP is far from a perfect system. Although not as rampant as they previously were, there are significant issues with mismanagement when disbursing payments, recipient fraud, and retailer tracking—a practice where SNAP recipients exchange benefits for cash.¹⁰¹ Congress should take account of these types of acts when developing the program for the FCC.

Arguments against using EBT cards for Lifeline are easily dismissed. For instance, Jeff Westling of R Street worries that Congress would need to appropriate money to cover the administrative costs in sending EBT cards¹⁰² and that states would need to be involved. However, Congress could simply use the same EBT cards. In addition, Lifeline is almost entirely administered by states, hence, issues at the state level may be a bit overstated.¹⁰³ And the savings from having a more secure method of Lifeline disbursement would significantly outweigh the costs. Either way, it is an option Congress should consider when reforming USF.

99 Emelyn Rude, “The Very Short History of Food Stamp Fraud in America,” *Time*, March 30, 2017, <https://time.com/4711668/history-food-stamp-fraud/>; see also, “How FNS Fights SNAP Fraud, Waste, and Abuse,” Food and Nutrition Service U.S. Department of Agriculture, <https://www.fns.usda.gov/snap/fraud>.

100 Ibid.

101 U.S. Government Accountability Office, GAO-18-504T, *Supplemental Nutrition Assistance Program: Observations on Employment and Training Programs and Efforts to Address Program Integrity Issues* (2018), <https://www.gao.gov/products/gao-18-504t>.

102 Jeffrey Westling, “Updating the Lifeline Program,” R Street Shorts No. 102 (April 2021), <https://www.rstreet.org/wp-content/uploads/2021/04/Final-Short-No.-102-Updating-the-Lifeline-Program.pdf>

103 “State Specific Information: Lifeline Program,” EnTouch Wireless, accessed June 30, 2021, <https://www.entouchwireless.com/lifeline/state-specific-information>.



CONGRESS COULD USE THE EBB PROGRAM AS A MODEL TO CREATE A NEW PROGRAM TO REPLACE LIFELINE

The Emergency Broadband Program is temporary, which Congress intended to be a stopgap to ensure that low-income households stayed connected. However, there appears to be bipartisan support for Congress to turn this program into a more permanent program.¹⁰⁴ This has advantages, as a Congressional Research Service report indicated: “EBB as written in statute differs from Lifeline in its funding structure, benefits levels, and provider and beneficiary eligibility requirements.”¹⁰⁵ The EBB Program is a congressional appropriation as opposed to a floating contribution rate, which this paper argues is a superior funding mechanism. EBB has broader eligibility provisions and provides a higher monthly disbursement. Lifeline has a \$9.25 monthly allotment; EBB recipients receive up to \$50 discounts for broadband services and \$100 “for computing devices supplied by participating broadband providers.”¹⁰⁶ Moreover, the EBB Program “instructs the FCC to expedite review of new applications.”¹⁰⁷

However, as is true with Lifeline, a significant issue with adoption remains. As New America points out, “[t]oo many eligible people don’t know the program exists. In the immediate short term, the FCC and the Biden administration should focus on a coordinated public awareness effort that links Lifeline with the new Emergency Broadband Benefit.”¹⁰⁸

EBB’s positive attributes far outweigh the potential negatives, making it a model worth further study. The EBB is still nascent, and the FCC’s current implementation may serve as a de facto pilot for Congress to assess the effectiveness of this program.

CONGRESS SHOULD CREATE AN INTERAGENCY OVERSIGHT COMMITTEE FOR BROADBAND SUBSIDY ALLOCATION TO LIMIT INSTANCES OF OVERBUILDING

Coordination with other agencies is another significant problem with USF allocation, which ultimately leads to overbuilding in various parts of the country. Congress should allow the FCC, in coordination with the National Telecommunications and Information Administration (NTIA), to create an oversight board like that of the Interdepartment

104 Amir Nasr, Claire Park, Joshua Stager, “How to Revive the FCC’s Lifeline Program,” New America Foundation, (February 16, 2021), <https://www.newamerica.org/oti/reports/how-revive-fccs-lifeline-program/iv-conclusion>.

105 Congressional Research Service, IN11612, Op. Cit. p.1.

106 Ibid.

107 Ibid.

108 New America Foundation, Op. Cit., p. 3.



Radio Advisory Committee (IRAC). This oversight board would allow member-federal agencies, responsible for deploying broadband subsidies, to gather and discuss strategies on how to best allocate the funds in the interest of the United States as a whole.

Interagency coordination is not a novel concept for the FCC. The FCC engages in an interagency committee process for spectrum allocation via the IRAC in conjunction with the NTIA.¹⁰⁹ There is also a memorandum of understanding between the FCC, USDA, and the U.S. Department of Health and Human Services that was signed in August 2020 to establish an interagency taskforce to work together on rural telehealth.¹¹⁰

Nevertheless, U.S. Reps. Greg Walden (R-OR), Bob Latta (R-OH), and several of their Republican colleagues on the U.S. House Energy and Commerce Committee sent a letter dated Nov. 23, 2020, calling for a federal audit of the Rural eConnectivity Pilot Program under the USDA.¹¹¹ ¹¹² The lawmakers questioned how this program is coordinating with other agencies, including the FCC, that are also trying to provide broadband support to ensure overbuilding does not occur.

While a memorandum of understanding is a good step, it is not traditionally comprehensive and interagency committees are not without their own issues. This is particularly true with the IRAC. Mainly, many have criticized the IRAC as overly bureaucratic and its process cumbersome. However, there is a lot the FCC can leverage from its experience with the IRAC, which can help it develop an interagency committee that can better coordinate and direct funds to people that need it. Moreover, the issues involved in IRAC as an oversight board may not plague an interagency committee dedicated to releasing government funds, because this interagency committee would simply be concerned with distributing money to targeted geographic areas. That's less complex than IRAC's responsibilities of assigning spectrum frequencies across the entire federal government.

When it comes to distributing government funds, bureaucracy is inevitable. But Congress should develop a more horizontally integrated interagency committee

109 "Interdepartment Radio Advisory Committee (IRAC)," National Telecommunication and Information Administration (NTIA), accessed April 30, 2021, <https://www.ntia.doc.gov/page/interdepartment-radio-advisory-committee-irac>.

110 Congressional Research Service (CRS), *Federal Universal Service Fund and Other Selected Federal Broadband Programs: A Primer*, (2021), https://www.everycrsreport.com/files/2021-01-28_IF11748_f88dcce427bced0d34741e42559da03881247e11.pdf.

111 "Letter to GAO on ReConnect Audit," House of Representatives Committee on Energy and Commerce, November, 23, 2020, <https://republicans-energycommerce.house.gov/wp-content/uploads/2020/11/11.23.20-Letter-to-GAO-on-ReConnect-Audit.pdf>.

112 "Program Overview," U.S. Department of Agriculture, accessed on May 31, 2021, <https://www.usda.gov/reconnect/program-overview>.



as opposed to the traditional stove-pipe structures to decrease the chances of the committee being overly bureaucratic. Such interagency reforms need to come from Congress and not executive and independent agencies as it will require congressional guidance. As Congress ultimately sets the goals for each subsidy program, it should define the contours of this interagency committee.

THE FCC MUST CREATE BETTER BROADBAND MAPS TO IMPROVE THE EFFICACY OF DISBURSEMENT MECHANISMS AND LIMIT INSTANCES OF OVERBUILDING

The FCC must make it a priority to ensure the accuracy of its maps to combat USF issues related to fraud and overbuilding. Although the Commission has and is currently working on this issue, its maps are deficient. Fixing broadband mapping is important to the future of internet access in general but will also ensure the Commission gets the funds to people who need these services the most.

ISSUES WITH BROADBAND MAPPING

The FCC, as well as much of the federal government, makes its policy and financial decisions based on Census information. Using Census data to make decisions around broadband is problematic because the Census only happens every ten years. Moreover, there is an issue with turning the findings from the Census into usable data, which typically takes the federal government a year or two after processing its reports. More problematic is that internet service providers used the block census method to calculate coverage.¹¹³ In March 2000, the FCC adopted a semi-annual reporting requirement for ISPs that requires them to use Form 477 to submit information on the services they offer at the census block level¹¹⁴

Census blocks are the smallest unit of geography defined by the Census Bureau and are “statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by non-visible boundaries, such as selected property lines and city, township, school district, and county limits and short line-of-sight extensions and roads.”¹¹⁵ Census blocks vary in size and population. For example, in Utah, the largest block is 947 square miles.¹¹⁶ Under the guidance of Form 477 data, the FCC considers a census block served

113 More About Census Blocks FCC Form 477, Federal Communication Commission (FCC), October 27, 2020, https://transition.fcc.gov/form477/Geo/more_about_census_blocks.pdf.

114 “Fixed Broadband Deployment Data from FCC Form 477,” Federal Communications Commission, last updated April 22, 2021, <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477>

115 More About Census Blocks FCC Form 477, Federal Communication Commission (FCC), October 27, 2020, https://transition.fcc.gov/form477/Geo/more_about_census_blocks.pdf.

116 Kelleigh Cole, “Comments on NTIA Docket No. 180427421-8421-01”, Utah Governor’s Office of Economic Development (GOED), June 18, 2016, p. 2, https://www.ntia.doc.gov/files/ntia/publications/2018_ntia_mapping_comments_utah.pdf



if even one house or business in the block is served. Since census blocks in rural areas can span over hundreds of square miles, this may provide inaccurate results. For example, if fiber is connected to a home in one part of a census block, it may not be connected to another home in the same census block a mile down the road. Under the current system, the FCC might exclude areas within a large block that might otherwise be eligible for federal assistance.

“Basing data collection, planning efforts, and funding decisions on census blocks is problematic, particularly in blocks which are large, remote, and include terrain that makes it difficult to install infrastructure,” the Utah Governor’s Office of Economic Development told the NTIA.¹¹⁷ Under the current Form 477 submission process, any census block that is partially covered would be ineligible for all federal broadband programs, even if only a small percentage of households or census block area is covered. The current data provided by the FCC about broadband availability is inaccurate, and still the FCC consistently makes funding decisions based on it.

Congress directed the FCC to improve broadband availability maps, and the FCC has a plan to do so.¹¹⁸ But as these are being updated, Sens. Bennet, King, Portman, and Manchin rightly pointed out in March 2021 that the USDA announced rules for the second round of funding under the temporary ReConnect Pilot Program without accurate maps.¹¹⁹ The senators wrote:

“Unfortunately, the FCC data continually overestimates broadband connectivity due to outdated mapping and poor data collection methods. We now have multiple definitions across federal agencies for what constitutes an area as served with broadband, resulting in a patchwork without one consistent standard for broadband.”¹²⁰

In short, the FCC must make it a priority to ensure the accuracy of its maps to combat USF issues related to fraud and overbuilding.

117 Ibid.

118 Joan Engbreton, “FCC Adopts New Broadband Data Collection Rules with an Accurate U.S. Broadband Map at Stake,” *Telecompetitor*, July 16, 2020, <https://www.telecompetitor.com/fcc-adopts-new-broadband-data-collection-rules-with-an-accurate-u-s-broadband-map-at-stake/>

119 U.S. Senators M. Bennet, Angus King Jr, Rob Portman, Joe Manchin III, *Letter to update federal broadband program speed requirements*, March 4, 2021, https://www.bennet.senate.gov/public/_cache/files/c/7/c76028fb-488d-498e-8506-7d8a2dce3172/05DDC9148CC7F12A9F09235F77BB7A0D.bipartisan-broadband-speed-letter.pdf

120 Ibid.



Conclusion

Each policy option could supply USF with funding, support consumer access, and reduce USF's waste, fraud, and abuse. Both the Congress and the FCC should weigh the options and take action to improve the USF. It is in dire need of reform to fulfill its overall purpose of providing universal service to the U.S. population.



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Mr. Thayer focuses his practice on telecommunications, regulatory and transactional matters, as well as privacy and cybersecurity issues. He has represented clients in front of myriad legal and regulatory fora, including the Federal Communications Commission (FCC), Federal Trade Commission (FTC) and federal administrative agencies. Mr. Thayer has also represented amicus curiae before the United States Supreme Court and advised technology companies on the European Union's General Data Protection Regulation. Additionally, Mr. Thayer's practice extends to matters concerning both administrative and constitutional law.

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