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Free Press

Dear Senators Luján, Thune, and members of the Universal Service Fund Working Group:

Free Press and Free Press Action (together, "Free Press") welcome the opportunity to provide input into your oversight of the Universal Service Fund ("USF"). Free Press believes that positive social change, racial justice and meaningful engagement in public life require equitable access to technology, diverse and independent ownership of media platforms, and journalism that holds leaders accountable and tells people what's actually happening in their communities.

Free Press has participated in numerous FCC USF proceedings in the two decades since our founding, and has testified several times on this topic before Congress. Our focus is on ensuring that consumers' interest and equity are front-and-center in the FCC's policies. We bring a data-driven approach to our analysis, which is important in a debate that is often saturated in self-serving industry rhetoric.

In our comments that follow, we discuss how Congress's historic levels of investment made during 2021–2022 require a sea change in FCC USF high-cost distribution policies, which remain rooted in a framework that was designed to provide ongoing support to incumbent telephone companies in rural areas. We and many other analysts believe these recently appropriated deployment funds will fully close the broadband deployment gap, dramatically reducing the need for further ongoing support.

We also note the early successes of the Emergency Broadband Benefit Program and its successor, the Affordable Connectivity Program ("ACP"), which have helped more than 20 million low-income households get and stay connected during turbulent economic times. These successes illustrate that giving low-income households more financial support and choice are key to closing the adoption digital divide, and keeping it closed. However, the ACP is running out of funding, and requires immediate further Congressional appropriations to prevent massive disruption and disconnection.

Finally, we demonstrate that contrary to lobbyist rhetoric, the USF contributions system is not in a "death spiral." This notion has long been pushed by representatives of very large corporations, who want to shift their USF contribution burden onto households and small businesses. The data clearly shows that the amount of funds collected for USF is stable, and even declining in inflation-adjusted terms. It also shows that in the past decade, marketplace changes have resulted in households and small businesses seeing their monthly USF contribution burden slightly decline, while large corporations have seen their USF payments slightly increase. Any move to "broaden" the contribution base to include retail broadband services would significantly shift the USF contribution burden away from large businesses and onto residential households and small businesses. This shift would hurt low-income households already harmed by the home internet digital divide. Taxing broadband via USF's regressive fee system would result in an approximate $4 billion annual wealth transfer from consumers and small businesses to giant companies.

We look forward to working with Congress as it considers what policy changes may be necessary to ensure that everyone in this nation has access to high-quality, affordable and open telecommunications services.

EXECUTIVE SUMMARY

The U.S. telecommunications market has significantly evolved since Congress last overhauled the Communications Act more than a quarter century ago. But the Federal Communication Commission's universal service distribution policies – though periodically tweaked – are still rooted in a framework designed to support incumbent telephone companies.

However, the Congress and the Commission now have before them an opportunity to reimagine and reinvent universal service policy for the future. The Commission and Congress last embarked on designing what was then a new era of universal service and pro-competition policy in 1996, but the good intentions that fueled that effort are no longer a reliable blueprint in a fundamentally changed marketplace. And however good those original intentions were, their implementation since 1996 has been marked by too many missteps and cascading concessions to incumbents.

During 2020–2021, Congress appropriated more than $80 billion to address the nation's broadband deployment, adoption and homework gaps. The more than $50 billion in deployment funding alone should ensure that people living in rural areas are no longer left without access to broadband. This historic investment also sets the stage for both Congress and the Commission to revisit our nation's universal service policies, in order to align them with Congress's long-standing vision of a competitive market that provides high-quality affordable services, and policies that protect users from unjust and unreasonable practices.

The current universal service regime was constructed based on the particulars of the market as it was in 1996, an era with no competition in last-mile wireline facilities , and with only modest levels of wireless deployment in rural areas. In the years since, rural areas have seen widespread deployment of mobile and fixed wireless services, the entry of satellite telecommunications services, and substantial — though not universal — wired broadband deployments. Yet the FCC's high-cost universal service distribution policies in particular remain structured to benefit legacy telephone company incumbents, and the result is massive waste of scarce funds — funds that are collected in a regressive manner.

The Infrastructure Act's investments take away any last excuses for maintaining these outdated distribution policies. Indeed, in that law, Congress directed the FCC to produce a report on the future of universal service in light of all this new funding. That report, released one year ago, contains many insightful recommendations and is an important first step towards policy modernization. But more analysis is needed. Policy makers need to know how BEAD-funded deployments in particular will impact the need for continued universal service deployment and operational funding in high cost areas.

The Commission's overhaul of its universal service policies in 2011 was long overdue, and improved what came before. But it still protected telephone company interests and did not take advantage of market forces. This changed somewhat with the Rural Digital Opportunity Fund ("RDOF"). Though this new program was certainly not without its problems, which were documented extensively by Free Press and others, it demonstrated that if subsidies were made available on a competitive basis, the job of bringing next-generation broadband to high cost areas could cost far less than the billions the Commission doles out to incumbent carriers every year.

With Congress appropriating enough funding to close the deployment gap, the Commission's central challenge in high-cost areas is no longer how to best fund capital expenditures, but how to ensure the rates rural residents pay are reasonably comparable to those throughout the nation. Fortunately the Communications Act already affords the Commission a wide array of options to meet this challenge.

We suggest that the first step for Congress and the Commission is more-specific and targeted analysis: The FCC should perform a stress test, to determine what market rates would be in the absence of any additional High Cost support. If the Commission determines that in the absence of ongoing subsidies, rates will not be reasonably comparable, it must probe why. If it is because rural carriers themselves have few options for affordable backhaul, the solutions to that problem could come in the form of regulation, or Congress appropriating additional middle mile infrastructure funding. If the answer is that rural ISPs' remaining cost of capital cannot be recovered from reasonably comparable end-user rates (that account for differences in overall cost of living and wages), then the solution to that problem could come in the form of subsidies paid to end-users to offset their high bills.

Congress of course funded much more than just rural deployment in the IIJA and other recent bills. It made substantial investments in equipment and services that will benefit students and rural health care centers, and answered the call to help low-income families with their monthly broadband bills. The creation of the Emergency Broadband Benefit program, and its extension into the longer-term Affordable Connectivity Program ("ACP") is already benefiting over 20 million families in need. The affordability problem is one that will persist however. Therefore we urge Congress to make the ACP a permanent program, and appropriate the funding needed to ensure that low-income households can afford broadband long after the initial appropriation from the Infrastructure Act is expended.

Finally, we strongly urge Congress and the Commission to reject the cynical call from some of the nation's largest businesses to massively lower their own USF contribution burdens by imposing a regressive tax on residential broadband services. These parties have for years falsely warned that the USF contributions system is in a death-spiral, but as we document below, this is simply not true. The fact is that the total USF contribution pool in real terms peaked in 2012, and has declined substantially since. While the overall contribution factor percentage has risen, the average residential consumer has seen their contribution burden decline slightly, as the burden borne by large businesses increased slightly.

It is not surprising that these big corporate interests would like to see more tax cuts, but their plan to "broaden" the contribution base to broadband could result in as much as a $4 billion annual shift of their USF taxes to hard-working families and small businesses. This policy change would not be in the public interest. It would frustrate the Commission's universal service goals by making broadband more expensive for residential consumers and small businesses, and would disproportionately harm low-income families. The regressive USF contributions system unfairly burdens most consumers to the benefit of wealthy households and large corporations. Furthermore, in the internet commerce era, the benefits of rural broadband deployment subsidies accrue to large businesses far more than to individual households in urban areas, as they bring additional rural households into the online commerce marketplace. This is why we strongly urge Congress to end the practice of regressive taxation of consumers, and instead fund universal service via more progressive methods.

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I. Introduction

In 1996, Congress overhauled the Communications Act of 1934 ("Communications Act" or "the Act") in order to help realize a promise: the promise that rapid technology advances and market forces answerable to basic regulatory oversight would bring everyone in the nation a competitive, affordable, high-quality communications marketplace. Congress was responding to the change in the zeitgeist brought on by the twin advances in computing equipment and home internet access. Throughout 1995, policymakers were sold a bold vision of the future, one captured in the details of President Clinton's remarks delivered during the signing ceremony for the Telecommunications Act of 1996 ("Telecommunications Act" or "1996 Act") at the symbolically-rich Library of Congress: Out was the old stodgy Ma Bell monopoly, represented in a live video call by actress Lily Tomlin playing the role of grouchy switchboard operator Ernestine. In was the dream of an information access revolution that would foster economic prosperity and social enlightenment.

Technology was the key to this revolution, but according to President Clinton it had been "held back by outdated laws, designed for a time when there was one phone company, three TV networks, no such thing as a personal computer."[1] The solution was to "create an open marketplace where competition and innovation can move as quick as light."[2] The President noted that the creation of an open marketplace in the face of entrenched monopolies wasn't something that would happen on its own; it would require rules to promote and preserve competition.[3]

[1] "Remarks by the President in Signing Ceremony for the Telecommunications Act Conference Report," The White House Office of the Press Secretary (Feb. 8, 1996).

[2] *Id*.

[3] *See id.* "This law also recognizes that with freedom comes responsibility. Any truly competitive market requires rules. This bill protects consumers against monopolies. It guarantees the diversity of voices our democracy depends upon. Perhaps most of all, it enhances the common good."

While the President's signing ceremony statement was light on the details, the Congressional hearings that preceded the final bill were not. Congress had debated the overhaul of the Communications Act in earnest ever since a federal court ordered the Bell monopoly broken into pieces that included 22 smaller regional monopolies.[4] This decision forced the Federal Communications Commission ("FCC" or "Commission") to accelerate its own attempts to open up markets to greater competition, and to use regulation to produce the same behavior and outcomes where competition wasn't possible.[5]

But the Commission faced a key challenge: how to maintain efficient rates while also preserving universal service. The Ma Bell breakup freed up competition in the long distance market, but long distance companies and their customers were still at the mercy of local telephone monopolies, who charged the long distance carriers for connecting the call through to the called-party. The Commission regulated these "access charges," allowing them to be well above cost, so that the local telephone monopolies could meet all their carrier of last resort obligations (*i.e.*, universal service obligations) while also keeping basic residential rates in check.

Opening up these local telecom monopoly markets would completely undermine this access charge method for preserving universal service, something Congress understood and attempted to address with the 1996 Act. First, Congress had to make sure the last-mile market was actually open to competition; it couldn't simply direct the Commission to make it happen because that would just result in stagnation-by-litigation as parties challenge every action by the agency. So Congress adopted the highly detailed provisions of Sections 251, 252, 259, and the

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[4] *See United States v. American Tel. & Tel. Co*., 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

[5] *See generally, e.g.*, S. Derek Turner, Free Press, "Dismantling Digital Deregulation," at 28-60 (2009) (providing a general overview of this history).

Bell Operating Company-specific Sections 271 through 276. Collectively, these market-opening provisions (and those in the earlier but related 1993 amendments to the Communications Act concerning wireless telecommunications)[6] were designed to foster last-mile competition. This was foremost from cable company incumbents whose coaxial wires were already in nearly 90 percent of U.S. homes, but also from new entrants such as Competitive Local Exchange Carriers ("CLECs") — who would use a combination of their own equipment and the last mile of Incumbent Local Exchange Carriers' ("ILECs") networks — and of course from wireless carriers, who were rapidly expanding beyond their 1980s "carphone" era.

But Congress was much less prescriptive on how the Commission was to preserve universal service as it crafted rules to foster robust competition and market-based outcomes. Section 254 (aside from the very detailed provisions on "e-Rate" in subsection (h))[7] is largely aspirational and goal-driven. There are universal service principles and definitions, with a directive to the Commission to create and rely on the policy recommendations of a Federal-State Joint Board on Universal Service. There was no directive on precisely how to do this, or what form subsidies should take. And when it came to the question central to most policy debates, of who pays for universal service, Congress simply left it at "every telecommunications carrier that provides interstate telecommunications services" and possibly other interstate telecommunications providers "if the public interest so requires."[8] Congress's instructions on the matter of low-income household telecom service subsidies were even less prescriptive, merely

[6] *See* Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66.

[7] *See* 47 U.S.C. § 254(h). Though much of this subsection is directly related to the Schools and Libraries program, the Commission's authority for the Rural Health Care universal service program is also found in § 254(h)(1)(A).

[8] *Id*. § 254(d).

stating that nothing in the 1996 Act's amendments was meant to affect the FCC's Lifeline program in place at that time.[9]

This regulatory flexibility was necessary. The communications marketplace was rapidly changing due to the massive advances in IP-based technology and in the overall computing industry. The Commission, as an expert agency, needed the flexibility to respond and iterate its policies based on external realities that were in constant flux.

However, this vision and rightful desire for a nimble regulatory agency comes directly into conflict with a recurring pattern: the Commission's regulations are often path-dependent, with layers of new industry-accommodating policy built upon older policy compromises likewise designed to satisfy powerful incumbents. The Commission's universal service policies exemplify this incumbent-driven path dependence. Little of Section 254 itself would obviously lead to the current FCC rules drawn from it, and no rational policy analyst would design the current system if starting from scratch.

Regulatory path dependence is highly resistant to external events. Thus, the very flexibility initially granted to the Commission to adapt and iterate became, paradoxically, the design that produced a highly static system prone to capture. But the 2021 Infrastructure Investment and Jobs Act[10] ("Infrastructure Act" or "IIJA") directed the Commission to consider how this once-in-a-generation investment in broadband impacts universal service policy.[11] This directive gave the Commission a rare opportunity to set aside the past and put sensible policy first. The landscape before the Commission is radically different from the one it faced in 1996, or

[9] *See id*. § 254(j).

[10] *See* Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, 135 Stat. 429 (2021) ("Infrastructure Act" or "IIJA").

[11] *See id.*, div. F, tit. I, § 60104(c).

even in 2011 when it last overhauled the universal service High Cost Fund ("HCF") and created the Connect America Fund ("CAF").[12] Today, nearly every single person in the U.S. resides at a location served by multiple terrestrial wired and/or wireless telecommunications carriers, and there are multiple satellite telecom service options available to those in the most remote locations.[13] This is a far cry from the twisted-pair copper monopolies that dominated the market when the Commission first implemented the 1996 Act's amendments.

Many other factors that should impact the Commission's USF policies have changed as well, including massive declines in telecom equipment costs and substantial changes in tax law that lowers carriers' effective cost of capital equipment. The demand-side of the market is also much different than it was in 1996, with both mobile and fixed home internet access approaching adoption levels similar to the peak for home telephony. Add in a market of multiple, high revenue-generating services (such as data, data overage fees, equipment rental fees, fixed and mobile telephony, video, security monitoring, etc….) in an unregulated oligopoly environment, and the result is an overall marketplace that profitably rewards broadband investment in all areas, including high-cost rural areas, even in the absence of legacy universal service subsidy support.

Despite these massive changes, the Commission's universal service programs, and particularly the High Cost Fund and its progeny, remain stuck in a time warp: partly in the distant past, partly in the compromises of a dozen years ago, and with very little evidence of an eye

[12] *See, e.g., Connect America Fund* et al., WC Docket No. 10-90 *et al*., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd 17663, ¶ 76 (2011).

[13] Throughout this comment we will use the terms "telecommunications carriers," "carriers," "telecom service providers," and other variations interchangeably. To pretend that broadband internet access services are not telecommunications services, as the Commission has previously done and currently does until broadband is properly reclassified — and thus that providers of those services are not telecom carriers — leads to too many patently ridiculous sentences. However, we will use these terms precisely when we discuss the consequences of the Commission's flagrant disregard for the plain meaning of the law for its overall universal service and competition policies.

towards the future. The Infrastructure Act's historic investments offer a way out of this path dependence. The Commission can rebalance its policies to better fit its statutory duties, and to promote universal service and competition for the world of 2023, while also removing policies that distort competition, protect incumbents and ultimately frustrate the swift realization of the 1996 Act's goals.

II. The Sizeable Investment from the Infrastructure Act and the Completely Changed Broadband Marketplace Require a New Universal Service Paradigm.

A. The Infrastructure Act Provides Adequate Funding to Close the Deployment Digital Divide, and that Requires a Data-Driven Assessment of the Utility of the USF High Cost Fund.

Talking about the existence of a digital divide is an oft-used apolitical tool for politicians to signal to their constituents that they are working to solve an important and largely non-controversial problem. Yet all of that talk hasn't usually resulted in action. For example, despite direct control over the appropriation of funds that could be used to build broadband where it is needed, and despite the constitutional authority to determine who should receive that funding and what they're expected to do with it, Congress had largely until the last few years left the question of solving the digital divide to others.

The exceptions to this trend tend to come during moments of crisis, when the concerns about the real-world consequences of the digital divide are too great to assuage with rhetoric alone. When the U.S. experienced a massive economic shock in early 2009, Congress acted to address the digital divide with a $7.2 billion investment in certain types of telecom infrastructure, and directed the FCC to write a plan to "ensure that all people of the United States have access to broadband."[14] More than a decade after that money was spent and the plan was delivered,

[14] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) ("ARRA").

Congress found itself in a familiar place: the economy was in free fall and too many people lacked access to the affordable broadband technologies needed to help pull the nation back from the brink. However, unlike 2009, Congress's response was broad, iterative, and most-importantly, backed with a right-sized appropriation. Throughout 2020 and 2021, Congress appropriated more than $80 billion for broadband-related funding, with more than $50 billion of that devoted to broadband deployment.[15]

This level of funding may not be as high as some interested parties hoped for. Yet for infrastructure alone, the $42.5 billion of Broadband Equity, Access, and Deployment ("BEAD") program grants, plus the billions allocated for state capacity grants, Rural Utility Service grants, USDA grants, and Emergency Connectivity Fund grants for schools and libraries, almost equals the entire prior decade's worth of High Cost Fund spending. Indeed, the $42.5 billion in BEAD program spending alone is nearly five times the amount the Commission provisionally awarded in Phase I of the Rural Digital Opportunity Fund ("RDOF"), which is slated to bring mostly fiber-level services to all of the remaining homes supposedly located in an area unserved by any fixed terrestrial providers at the 25/3 megabits per second (Mbps) downstream/upstream

[15] These totals derive from combining 2020 and 2021 broadband-related appropriations in the IIJA, the Consolidated Appropriations Acts of 2020 & 2021, the Further Consolidated Appropriations Act, the CARES Act, and specifically from deployment-related funds such as BEAD, Tribal Broadband Connectivity, Middle Mile Grant, Broadband Infrastructure Deployment, and USDA ReConnect programs. The actual figure could be significantly higher, as the American Rescue Plan Act of 2021 included emergency funding for state, local, and territorial and tribal governments, amounting to the hundreds of billions of dollars, that also could be used for broadband infrastructure expansion as well as dedicated broadband funds and grant programs.

threshold.[16] We recognize that many commenters flatly reject the Commission's Form 477-based estimates about the "true" number of unserved homes; but even under the most pessimistic analysis, the grants made in the BEAD program, in conjunction with the RDOF and recently revised ACAM-II spending, should be more than enough to bring every household and business location in this country a "reasonably comparable" broadband option, in the parlance of Section 254(b)(3)'s mandate.

Congress thus provided the BEAD program with the level of funding needed to completely close the rural-urban deployment gap, especially in light of the foundation from RDOF and CAF and other capex-heavy spending by the FCC. The Commission's experiences with the RDOF reverse auction certainly offer reason to believe that the more than $50 billion combined in BEAD, RDOF Phase I funding, and ACAM-II funding are more than enough to ensure that, whatever obstacles to universal adoption might remain in rural telecom markets, capital spending would not be one of them.

Congress didn't simply stop at funding rural America's remaining need for telecom infrastructure investment; it recognized that this massive spending likely obviates the need for the Commission to continue sending more than $5 billion each year directly to rural ILECs.

[16] According to the Commission's most-recent Form 477 data, as of December 31, 2022, approximately 5.5 percent of residential locations were in areas where no fixed terrestrial ISP reported offering services at or above the 25/3 Mbps threshold (which equates to approximately 7 million households). At the 100/20 Mbps threshold, the recent data indicates 9 percent of residential premises are unserved at those speeds by terrestrial technology (approximately 11.7 million households). In the Commission's December 2020 RDOF results press release, it noted that the provisional awards were slated to bring mostly gigabit level services to 5.2 million locations, which it stated included "10 million" rural persons. Of these 5.2 million locations, 85 percent are slated to see gigabit-level deployment, and 99.7 percent are slated to see deployment of services with transmission capabilities exceeding 100 Mbps downstream and 20 Mbps upstream. *See* Federal Communications Commission, "Successful Rural Digital Opportunity Fund Auction to Expand Broadband to Over 10 Million Rural Americans: Phase I Auction Allocates $9.2 Billion to Close the Digital Divide in 49 States and the Commonwealth of the Northern Mariana Islands" (rel. Dec. 7, 2020).

Specifically, Section 60104(c) of the IIJA directed the Commission to submit to Congress "a report on the options of the Commission for improving its effectiveness in achieving the universal service goals for broadband in light of this Act, and other legislation that addresses those goals."[17]

That report, released in August 2022,[18] contained several important recommendations. The Commission rightly recognized the need to initiate a new proceeding to revisit its High Cost support mechanisms, a task that is of utmost importance in the wake of Congress's BEAD and other broadband capital improvement appropriations.[19]

In light of the new directive and the massive appropriations in the Infrastructure Act, along with the broad and permissive nature of Section 254, we strongly believe the Commission has a duty to finally toss aside the USF legacy of the Ma Bell monopoly era particularly with regards to the High Cost Fund. Perhaps the Commission believes that the changes it has made to the High Cost Fund subsequent to the National Broadband Plan have already made this necessary break with the past; but that's not the case. The current High Cost Fund largely remains heavily tilted in favor of entrenched incumbents, and thus distorts markets in a manner inconsistent with the Act's preference for competition-based outcomes.

Though the Commission did finally move to a competitive-based system for awarding some of the HCF support, even this system is plagued with issues such as tying initial support

[17] Infrastructure Act, div. F, tit. I, § 60104(b), (c).

[18] *Report on the Future of the Universal Service Fund*, WC Docket No. 21-476, Report, FCC 22-67 (2022) ("*Future of USF Report*").

[19] *Id.* ¶ 41.

levels to dubious cost models.[20] Much of the Commission's HCF support is still not subject to competitive bidding, and appears to be unnecessary and excessive even before considering the impact of the BEAD program.

For example, during 2021, 55 percent of High Cost funding was allocated to rate-of-return carriers, who are by definition earning profits well above the efficient market level.[21] Nearly 14 percent of HCF support in 2021 went to competitive carriers, who are by definition competing against other carriers. These figures alone do not demonstrate inefficient spending; but when examined in light of the restricted nature of entities to whom HCF funding is made available and what the funding is for, and when compared to the results of RDOF's fully

[20] Some of the same inputs to the Commission's so-called "Alternative Connect America Cost Model" ("ACAM") were used to produce areas that were eligible for RDOF support, despite the fact these areas contained no serviceable locations. Further, RDOF bids overwhelmingly came in well below the Commission's model-based reserve estimates, at an assigned support weighted-average of 43 percent of the reserve price. More than $2 billion of the $9.2 billion in assigned support was for bids 20 percent or below the reserve price. *See, e.g.,* S. Derek Turner, Free Press, "Space-X Broadband: Coming to an Empty Traffic Island Near You," (Dec. 24, 2020).

[21] Free Press analysis of USAC FCC Filings.

open competitive bidding process, it certainly suggests a high potential that much of HCF support is inefficient and market-distorting.[22]

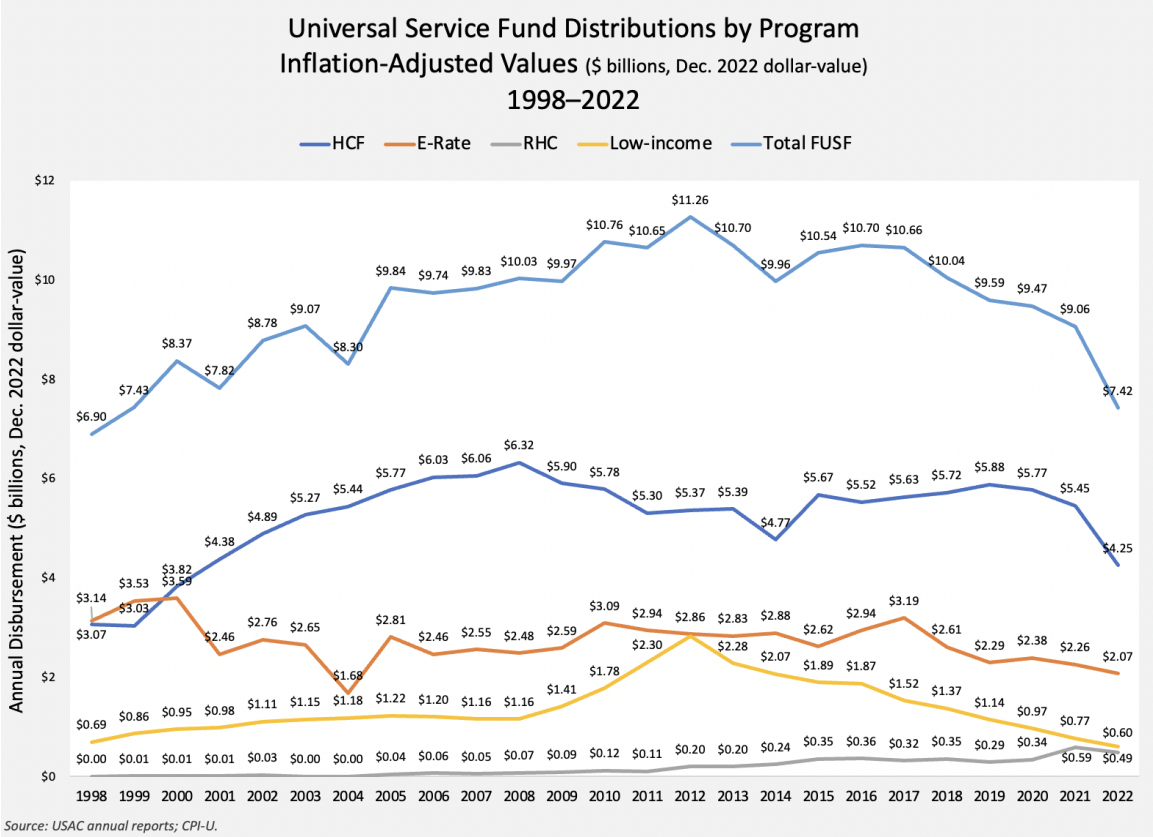
In other words, the results of RDOF suggest that when funding is opened to competition, our nation's universal service goals can be met at funding levels well below what the Commission currently allocates solely to entrenched incumbents through policies that protect their incumbency. This entrenchment is plainly the opposite of Congress's intentions, as seen in the 1996 Act, as well as the Infrastructure Act's preference for competitively-awarded, goals-based subsidies.

B. Congress and the Commission Cannot Let the Vestiges of the Broadband Marketplace of 1996 or 2011 Drive Their High Cost Support Decisions in 2022 and Beyond

The Commission has allocated nearly a quarter of a trillion dollars in federal Universal Service Fund support over the past quarter century, when adjusting for inflation (see Figure 1 below). The program grew at a rapid rate during its first few years, primarily due to consistent growth in High Cost Fund support.

[22] Much of the spending in the Commission's "reformed" High Cost Fund programs is not only restricted to ILECs, but specific types of ILECs, which in some cases are granted right of first refusal support based on cost-models that RDOF demonstrated to be wildly excessive, and for service quality levels well below those funded in RDOF. ACAM and its even more generous cousin ACAM-II accounted for one quarter of all HCF support in 2021. More than 14 percent of 2021 HCF support went to Connect America Fund Broadband Loop Support ("CAF BLS"), a program intended to replace an already questionable support program for rate-of-return carriers. More than 11 percent of HCF support is for the older High Cost Loop support program (which also includes two other dated support programs, Safety Net Additive and Safety Valve). The High Cost Loop support program is based on ILECs' loop cost data from 2012. Nearly 7 percent of 2021 HCF support went to intercarrier compensation replacement payments, which the Commission deemed no longer warranted in its 2011 reforms. Nearly 9 percent of HCF support is still made to competitive wireless carriers in the form of "frozen" support, which was supposed to be reduced to zero years ago, but wasn't for reasons that seem wholly unjustifiable.

Figure 1:



But as Figure 1 shows, the annual allocation has been relatively stable since 2005 at approximately $9.5 billion (inflation-adjusted), with 2022 being the lowest amount of funds distributed since 1998. Underneath the surface, we see that spending for the HCF and e-Rate programs has been remarkably consistent since 2005. This is certainly expected in the case of e-Rate, which is a program with a longstanding cap on annual spending. But the consistency in the HCF is telling, especially considering that the program is not subject to a hard cap, was completely overhauled in 2011 with several subsequent revisions, and has the sole purpose of ensuring the availability of supported services at rates that are reasonably comparable to those found in non-high-cost areas. This funding level consistency, along with the lack of any needs-based performance evaluations, may indicate that expenditures are determined largely by the soft-cap.

As we noted previously, the Commission's experience with RDOF offers strong evidence that its $5 billion in annual High Cost Fund support is well above the level of spending needed to achieve the Act's universal service goals.[23] What the actual level of support should be is something for the Commission to determine, on a continuous basis. While Congress never directly answered this question, there's evidence that it perceived the need in Fiscal Year 2001 to be less than $3 billion for all of USF, or $4.8 billion adjusted for inflation.[24]

This budgeted amount for Fiscal Year 2001 is telling in light of what has and has not changed since. The 2021 annual spending totals for the e-Rate and Lifeline programs are largely unchanged in real terms compared to the 1998 allocation. In contrast, the High Cost Fund doubled relatively early on during this period, and as noted above has remained at that questionably high level ever since. There is simply no evidence to suggest that Congress ever envisioned, with the introduction of cable, wireless, and other competition (not to mention the myriad state deregulatory policies that favored incumbents), and with the massive declines in telecom equipment costs, that the High Cost Fund should be double in real terms today what it was in 1998. Nor is there any evidence that Congress desired the Commission to administer massive grant-making deployment programs.[25]

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[23] As we discuss herein, subsidies are not the sole method to achieve universal service goals. The Act gave the Commission regulatory authority in other areas that, if properly utilized, could lower entry barriers and input costs for rural ISPs.

[24] Section 3006 of the Balanced Budget Act of 1997 appropriated $3 billion to the Universal Service Fund for fiscal year 2001. This appropriation was repealed in a subsequent 1998 law. *See* Pub. L. No. 105-33, 111 Stat. 269, § 3006; *see also* Pub. L. No. 105-119, 111 Stat. 2521, § 622.

[25] It is noteworthy that with both the 2009 ARRA and the 2021 IIJA, Congress designated the NTIA, not the Commission, to administer the broadband grant programs.

While the relative level of real spending for USF has not changed much over the better part of the past two decades, we've seen plenty of change in other factors that impact the telecom market and that should impact the Commission's universal service policies too.

At the end of the 20th century, mobile services were rapidly expanding, but digital cellular services reached very few rural areas.[26] Today 99.9 percent of the U.S. population lives in an area with at least one available 4G LTE carrier, with 99 percent of the population served by three such carriers. As these high availability figures imply, rural coverage is vast, with 99 percent of the rural population served by at least one 4G LTE carrier, and 95.5 percent of those in rural areas having three such options.[27] Though the purported consumer benefits from the evolution of 4G to 5G are mostly industry-driven hype, there's ample reason to believe rural coverage will be as robust for 5G as it was for prior wireless technology generations, with T-Mobile alone set to reach 99 percent population coverage by 2026.[28] Very few homes could subscribe to broadband before 1998, and facilities-based competition was unheard of; today most urban households and two-thirds of rural households are able to choose between at least two fixed terrestrial ISPs offering transmission speeds at or above 25/3 Mbps. And of course, anyone living at a residence with a view of the southern sky has multiple options for satellite broadband, with Low-Earth Orbit options increasing in both availability and quality.

Therefore, the supply of advanced telecommunications services in rural areas — most offered <u>without</u> direct subsidy support — is unquestionably well above where it was in 1996. But

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[26] *See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services*, WT Docket No. 09-66, Third Report, 13 FCC Rcd 19746, 19780 (1998).

[27] *See Communications Marketplace Report*, GN Docket No. 20-60, Report, 36 FCC Rcd 2945, ¶¶ 73-78 (2020).

[28] *See id*. ¶ 81.

there are still more factors that have changed too, and that also should result in a lower need for carrier subsidies. The telecom, cable, wireless, and satellite industries have all undergone massive consolidation, mergers that each came with either general or explicit promises about the creation of synergies that would benefit people in rural areas. The percent of profits corporations pay in taxes is now around 13 percent, less than half the level seen in 1996.[29] Carriers are now permitted to fully depreciate the value of their capital assets in the first year of use, which is a massive cost-savings that directly boosts their bottom line.

Though it is an often overlooked aspect of the subsidy formula, demand for broadband telecommunications services is vastly higher today than it was in 1996. In 1996, Congress and companies alike certainly expected demand for advanced services to grow, but expectations cannot be deposited in a bank account. Companies that deployed broadband in 1998 were investing in a product market that only one-in-four households utilized.[30] Today nearly 90 percent of households have a fixed home broadband connection, and nearly every single U.S. adult has a mobile wireless subscription.[31] Users are also spending more for telecom services even after adjusting for inflation. According to data from the U.S. Bureau of Labor Statistics ("BLS") Consumer Expenditures Survey, the average household that reported purchasing telephone services in 1996 spent $120 each month in real December 2022 dollar-value amounts.

[29] Free Press analysis of data from the U.S. Bureau of Labor Statistics, BEA Account Code A053RC.

[30] According to the U.S. Census Bureau's 1998 Current Population Survey, 26 percent of U.S. households reported having home internet access.

[31] *See* "US Broadband Universe Databook 2021 - Historical and projected US residential broadband penetration rate, 2016-2025," S&P Global (Dec. 6, 2021); *see also* Mau Rodriguez and John Fletcher, "Broadband market share: Q2 2023," S&P Global (Aug. 17, 2023); "Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, January-June 2022," National Center for Health Statistics (Dec. 2022); "Mobile Fact Sheet," Pew Research Center (Apr. 7, 2021).

That same survey indicates that in 2021, households that purchased home internet access spent $76.14 (Dec. 2022 dollar value) on average each month, and households that purchased cellular service spent $151.64 (Dec. 2022 dollar value) on average every month. These expenditures amount to 3 percent of the average consumer's total expenditures, and do not include expenditures for wired home telephone services that less than 25 percent of households still pay for.[32]

This massive change in consumer demand is important, as it should lower the need for universal service subsidies.[33] In 1996, though the cable TV industry was expected to move into the telecom markets, there was little expectation for cable to deploy to rural areas. That's largely because at the time, a cable system operator's primary revenue generator was pay-TV, and satellite television companies' cost structure advantages meant rural deployment by cable was likely to be unprofitable. That calculation is no longer valid. We are now well into a market where broadband is the cable system operators' primary revenue generator, and the profit

[32] The BLS survey data includes values for residential telephone service expenditures. However, less than 25 percent of household survey respondents reported such expenditures. Therefore we do not include it in our comparison of telephone services purchased in 1996 vs. home internet and cellular services purchased in 2021 (the most-recently available data from this survey), services that were widely purchased in their respective periods. However, we can examine the average expenditures for these services by all consumer units in these periods (*i.e.,* the BLS reports the average expenditures across all U.S. households and the percent of households making such purchases, which enables the calculation of the averages spent by households that make these specific expenditures). This data indicates that in 1996, household expenditures for telephone services amounted to 2.3 percent of average consumer expenditures. In 2021, household expenditures for residential telephone services, home internet services and cellular services together accounted for 3.1 percent of average consumer expenditures.

[33] For example, the current view of the broadband market by Wall Street analysts is that ILECs upgrading their systems to fiber-to-the-home technology will earn healthy returns if 40 percent or more of the homes they pass with fiber subscribe. If adoption levels settle below 30 percent of passings, a LEC may not achieve the level of capital cost recovery needed to justify the investment. *See, e.g.*, Mike Dano, "Analysts fret over Lumen's fiber plans," *Light Reading* (Feb. 10, 2022).

margins broadband brings in are well above what these companies earned from pay-TV in the late 1990s. This explains why we see MSOs committing capital to build in rural areas where they never would have built even 10 years ago.[34] The same change in profitability calculus now leading to greater rural infrastructure deployment is seen in the wireless market too. In 1996, wireless technology was progressing, but demand in rural areas was limited by both the technology itself (*i.e.,* capabilities were limited to voice calls) and the "chicken or egg" issue of spotty rural availability. But as demand increased overall (with demand increases in urban areas creating network effects that increased demand in rural areas), and as the technology improved (adding the capabilities of data transmission), the rural deployment profitability calculus quickly changed, resulting in advanced wireless networks' near-universal coverage.[35] We also note that without any Commission subsidies, fixed wireless internet service providers ("WISPs") deployed

[34] *See, e.g.,* Comments of Thomas Rutledge, Chairman & CEO, Charter Communications, Inc., at UBS Global TMT Virtual Conference (Dec. 7, 2021) ("[W]e think it's good for us financially to extend our network, our broadband network and all of our network capabilities to as many people as possible."); *see also, e.g.*, Joan Engebretson, "Cable One Forms Clearwave Fiber Joint Venture: Rural Broadband is a Priority," *Telecompetitor* (Jan. 4, 2022); Casey Egan, "'Rural cable is all the rage,' analysts say," S&P Global Market Intelligence (Mar. 1, 2021) (quoting analysis that predicts "[r]ural cable providers stand to benefit the most, as the primary competitive advantage shifts from video scale to internet speed available" and the belief that "an inflection point is approaching, especially in the wake of the pandemic"); *see also, e.g.*, "Cox Network Transformation to Power Next Generation of Internet Users," PR Newswire (Feb. 17, 2022) ("Cox is committing more than $400M over the next three years to expand its footprint to reach underserved and rural communities.").

[35] We note too here the impact of policies other than USF subsidies on the achievement of universal service goals. Carriers in remote areas can invest in towers and antennas, but still require telecommunications services that transport their customers' communications to the nearest internet interconnection point. This means that Commission policies that result in lower costs for this "backhaul" are just as important, or even more important for its universal service goals, than many subsidies it doles out to ILECs.

where ILECs and cable system operators would not, and now reach a claimed 62 percent of the rural U.S. population.[36]

III. The Sufficiency of the Infrastructure Act Funding Juxtaposed With the Lessons from RDOF Suggest That Congress and the Commission Should Undertake Wholesale Reassessment of the High Cost Program. The Commission Should Conduct Stress Testing of Recipients and Consider More Pro-Competitive Policy Changes.

A. The Public Interest and the Law Require the Commission to Conduct a Deep and Skeptical Analysis of Its Past and Current High Cost Support Policies and Consider a Pause on Such Support.

Thus far we have reviewed how changes in the telecommunications markets should have impacted the Commission's universal service policies. Those real-world changes should have been followed with equally dramatic changes to the Commission's High Cost Fund policies. The need for the Commission to shake off its path-dependent approach and fully implement Congress's desire for a pro-competitive (not pro-incumbent) policy framework existed long before Congress allocated $42.5 billion in high-cost funding in the IIJA. But the IIJA appropriation and other related recent appropriations mean the Commission's existing universal policies are untenable in an environment with such a large influx of new funding.

[36] This information is based on the December 31, 2020 Form 477 data. As we've previously noted for the Commission, WISPs as a whole have a more spotty track record of reporting their coverage areas than other fixed terrestrial ISPs. These issues range from lapses in reporting to blatant over-reporting. But there's likely more uncertainty in the accuracy of WISP coverage maps due to Form 477's standard for whether or not an ISP may claim deployment in a given Census Block. Though the Commission's 2021 reforms addressed this issue, it is still possible that the standard of deeming an area as covered if the provider is "capable of performing a standard broadband installation . . . that can be completed not later than 10 business days after the date on which the service request is submitted" results in WISPs in particular over-reporting their coverage areas. *See* Comments of Free Press, WC Dockets Nos. 19-195, 11-10, at 17-19 (filed Sept. 23, 2019); *see also* 47 C.F.R. § 1.7001(a)(19) & § 1.7004(c)(1).

Congress and the Commission must "account for the relationship between projects to be funded by the Infrastructure Act and those funded by USF[.]"[37] We suggest that the accounting be ongoing, based on both Form 477/Digital Opportunity Data Collection data, and continuous reporting from the states via NTIA about what projects are being funded. This information will offer an inventory of where broadband is, is not, and will soon be; it will also, in conjunction with the results of RDOF Phase I, offer a wealth of information about what all this deployment funding could buy in an efficient market. Once BEAD awards are made, the Commission should be able to make reasonable projections about the need for ongoing USF support, which should be far lower than current annual high-cost disbursements.

Of course, shaking off years of path-dependent policymaking in the face of intense industry lobbying pressure to keep receiving essentially "free" money will not be easy. The Commission's *Future of USF Report* is an important first step towards policy change, but specific policy changes require more data-driven analysis, and that analysis will be better informed by the results of the state BEAD awards.

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[37] *See Report on the Future of the Universal Service Fund*, WC Docket No. 21-476, Notice of Inquiry, FCC 21-127, ¶ 25 (rel. Dec. 15, 2021). We disagree with the Commission that state-to-state differences in how they disburse their funds could make it "difficult to develop 'apples-to-apples' comparisons between the BEAD Program-funded projects and those funded by the USF." *See id.* ¶ 24. The Commission has now determined every single serviceable location in the U.S., and what broadband service is and is not available at those locations. That information is the basis of determining where BEAD funding is first targeted. The Commission's task is then to identify which of those currently unserved locations is located in a BEAD award area. With that knowledge in mind, the Commission can then apply whatever method it develops to determine if any ongoing support (for carriers, or preferably for their customers) is needed to ensure that the services offered in those (and all other) high-cost locations are available at reasonably comparable rates. This task only is "difficult" if the Commission fails to analyze its HCF policies through a need-based lens. For example, comparing BEAD to USF is made difficult only if the Commission's high-cost area policies are wrongly based instead on the premise that it has a legal duty to fund ILECs via convoluted methods like ACAM, or to continue to offer competitive wireless carriers frozen support that it originally determined should be sunset years ago.

This analysis should be based on answering a few fundamental questions: is there demand for broadband telecommunications services in a given high-cost area, and if so, what supply has the market offered to meet that demand? Policy makers then need to address whether or not, and how, that supply would change in a given area without subsidies. In answering this last question, policy makers must take care to recognize that the existence of incumbency, as well as state and federal regulations, can impact the entry decisions of other providers. In other words, this analysis must incorporate the market-distorting impacts of the Commission's current universal service policies and of other federal and state policies.

Similar to how U.S. banks were required to undergo "stress tests" in the aftermath of the 2008 financial system crisis, we suggest the Commission conduct stress tests on all current USF-funded locations. This analysis would use both publicly-available data and confidential provider data to model the range of outcomes that would arise if the Commission were to stop offering individual carriers high-cost support. Would carriers currently receiving USF ongoing support in high-cost areas be able to recover their weighted-average cost of capital in the absence of federal USF support? Would other non-supported carriers expand their offerings after being able to compete on a more-level playing field? Would end-user prices change, and if so, by a reasonable or unreasonable level? Would user demand for satellite-based services increase? Given the general trends in declining producer costs combined with the need for growth in areas other than a saturated urban market, would future entry be likely in unsupported high-cost areas? This stress test should be applied to the High Cost Fund, Schools and Libraries program, and

Rural Health Care Program.[38] While this stress test would be informative now, certainly the BEAD and other other recent congressional broadband capital improvement funding will impact the analysis, and it would be prudent for the Commission to consider how all of these newer subsidies alter rural telecom markets.

It is important to note that nothing in Section 254 requires the Commission to directly fund incumbent carriers operating in high-cost areas; the law only requires the Commission to establish "specific and predictable support mechanisms" to which all interstate telecommunications carriers contribute. While this currently involves complex systems of direct payments to carriers, based on factors ranging from cost model results to frozen support based on decades-old accounting results, the support mechanism could take any number of other forms. It could be a one-time payment based on the results of a reverse auction; it could be support in the form of a subsidized loan; it could be support in the form of regulated access charges; it could even be support in the form of end-user subsidies that bring prices in high-cost areas into the realm of reasonableness.[39] Some of these ideas come with other tradeoffs, and thus are potentially worse (or better) than the others.

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[38] Unlike these USF programs, the Lifeline program is a social welfare program with the sole purpose of offsetting a portion of the price of telecommunications services purchased by low-income households. In other words, the purpose of Lifeline is the payment itself, while the purpose of the other programs is to ensure the continued availability of telecom services in high cost areas, schools and libraries, and rural health care facilities.

[39] Though the Act requires USF support mechanisms to offer "predictable" support, this does not mean that the support must be given directly to a carrier. If universal service support is necessary because the service would not be available without it, and if the service is one like broadband that is demanded by nearly all households, then vouchers paid to end-users could be tailored to ensure the effective price of the service is at a level where demand is constant and predictable. Further, predictability doesn't bind the Commission to convoluted cost models or legacy high-cost mechanisms or certain support recipients indefinitely. Predictability is not reliance — it only requires the Commission to provide a reason to end the prior regime and propose a new one for the future.

The Commission needs to look critically at the results of RDOF in contrast with the CAF and ACAM programs, and analyze the benefits of a fully open reverse auction versus those closed, incumbent-favoring cost-model support mechanisms. We believe this analysis would clearly demonstrate that the incumbent-favoring programs are highly inefficient and ultimately market-distorting, potentially reducing unsubsidized investment in certain areas that would have happened had the Commission not propped up legacy carriers.[40]

In sum, the Commission needs to conduct a deep and skeptical analysis of its own policies, and ask difficult questions that will likely upset powerful incumbents. Any Commission may be reluctant to take a hard look at its own policies, but the public interest and the law require it. Even though the Commission's 2011 reforms of the High Cost Fund and intercarrier compensation system were substantive, these policy changes failed to adequately capitalize on market forces, and in fact still distorted markets in favor of ILECs. The Commission has both a duty and opportunity with IIJA (and all the other new spending) to pause, and center actual future needs in high cost areas. Given the massive amount of government-supplied capital investment, if there are instances where market forces would fail to ensure adequate facilities at reasonable charges, then this problem would manifest primarily in the form of high prices and not the absence of deployment. In such cases, the most efficient and equitable way to achieve universal service is to subsidize users, not carriers.

[40] For example, it is telling that the ILEC Lumen was granted $500 million in annual CAF support, but when faced with competition in a reverse auction, only secured an award worth $26 million annually. Whether or not Lumen's CAF award was the appropriate award given its cost structure is not the right policy question; the right question is what level of support, if any, is needed to ensure that affordable advanced telecommunications capability is deployed in a reasonable and timely fashion to locations in Lumen's service area, whether by it or by a different provider.

B. Congress Should Make the ACP a Permanent Congressionally-Funded Program.

The Universal Service Fund Working Group's inquiry brings policy makers an opportunity to critically examine the policy inefficiencies in the current USF system. Policy makers should examine what inefficiencies are created when the primary responsibility for universal service is placed on a federal agency that is notorious for its revolving door relationship with industry. While the FCC is of course the expert regulatory agency, its track record raises questions about its ability to be an appropriator. We believe that the task of doling out billions in subsidies should be a job for elected representatives who are accountable to their voters. The IIJA has taken a great leap towards this responsibility shift, but there is much more that Congress could do to promote and preserve universal service.

As we discuss below, ending the regressive and market-distorting pass-through contributions system should be a top priority. The only way to ensure the total end of the implicit subsidy system for high-cost areas is to make the subsidies explicit. And in order to minimize the distortions from regulatory capture and regressive taxation, these explicit subsidies should be funded from general U.S. Treasury revenues.

In the *Future of USF Report,* the Commission recommended that it "initiate a rulemaking to evaluate how the Lifeline program can best operate with the Affordable Connectivity Program and examine lessons learned from implementation of the EBB Program and the Affordable Connectivity Program that may be able to be applied to Lifeline."[41] The Commission also recommended that it "consider adopting consumer protection provisions similar to those adopted for the Affordable Connectivity Program for the Lifeline program."[42] We agree with these

[41] *Future of USF Report* ¶ 58.

[42] *Id.* ¶ 64.

recommendations; but as the Commission notes, in light of the ongoing rollout of BEAD and pending depletion of ACP, its policies will be better informed with data and analysis from these new programs.[43]

Indeed, though in its August 2022 report the Commission stopped just short of recommending extension of ACP, it did "recommend that the Commission and Congress closely monitor the program and consider measures to ensure there is no lapse in support for connectivity for low-income households."[44] Perhaps the Commission at that time did not anticipate the strong uptake in ACP that we've seen thus far; but it is clear that at the current rate of participation growth, the ACP will be fully depleted by or before April 2024. Thus the time for Congress to act to "ensure there is no lapse in support for connectivity for low-income households" is right now.

We urge Congress to make additional and ongoing appropriations for the Affordable Connectivity Fund. We believe the ACP thus far has been one of the most efficient and impactful universal service programs. However, it is clear that this much-needed program never could have been stood up by the Commission alone. The funding needs are simply too great to be borne by a system that is fully supported by the customers of telecom carriers, including broadband customers.

The Lifeline program was created in the aftermath of the breakup of the Bell monopoly, in order to offset other Commission rate increase policies, which were implemented in response to the partial erosion of the former monopoly's system of cross-subsidies. By 1996, when Congress enacted Section 254(j) — which merely clarified that the 1996 Act did not alter the

[43] *Id.* ¶ 71.

[44] *Id.* ¶ 74.

Lifeline program as it then existed — the average per-subscriber benefit was $4.50 (in 2021 dollar value), less than half of the current $9.25 monthly support. Lifeline was created to be just that — a literal lifeline. It offered marginal subsidy support to ensure that home telephone adoption levels amongst the poor were not negatively impacted by the Commission-authorized increases in local telephone rates.

Lifeline now ensures that low-income households have access to basic telephone and data services. But basic is not the same as equitable. Congress's creation of the Emergency Broadband Benefit ("EBB") and its transition into the ACP reflects a consensus that equitable broadband access is a critical social and economic need. Ensuring that low-income households have uninterrupted access to affordable broadband will require Congress to appropriate billions annually for a permanent ACP.[45]

Subsidies will always be needed, but they are not the sole way to promote broadband equity. Policies that foster greater price competition at all levels of the market will maximize the efficiency of low-income user subsidies, and maximize the welfare of all consumers.

IV. There is No "Death Spiral" as the Contributions Factor Increases. The Total Size of the USF Remains Stable, and a Decline in Assessable Mobile Revenues Means Large Businesses are Carrying Slightly More of the USF Funding Burden.

The policy debate over the USF contributions supposed "crisis" is rife with misunderstanding and misinformation. Large business interests that have fought for years to reduce their telecom pass-through fees have bemoaned the rising contribution factor as a warning

[45] It's not yet clear what the necessary level of ongoing ACP funding will be. As of August 21 2022, 20.4 million households are enrolled in ACP. Program enrollment is increasing at a remarkably steady pace of about 170,000 additional households per week. However, it is unclear how market and economic changes will impact the long-term need for low-income support. It is also important to note that there are additional, non-mutually exclusive methods to ensure that low-income households have access to affordable home broadband. These include direct provision (*e.g.,* free or low-cost municipal broadband) and other methods that produce overall lower market prices.

sign of impending collapse, and were doing so when the contribution factor was a lower percentage than it is today.

But missing from this rhetoric is any mention that the total size of the USF is remarkably stable, and in fact on an inflation-adjusted basis USF disbursements in 2022 were 34 percent below the fund's 2012 peak. If the total annual disbursements by the USF are stable and declining, then by definition the total payments into the fund are stable and declining.

So if the total fees assessed to fund USF are stable and declining in real terms, why is the contribution factor so much higher today than it was when the total of USF fees collected was far higher in real-dollar terms? The answer is that the interstate telecom revenue base has declined, primarily due to a decline in mobile interstate telecom revenues, and this decline means that the relative burden for funding what are stable, total USF outlays has shifted from consumers to large businesses.

It is important to note that the final payers of USF contributions are interstate telecommunications carriers. They are permitted to, and often do, pass through this burden to their end-user customers, in a manner that is proportional to the interstate revenue streams that are assessed in Form 499-A. Thus given the unassailable fact that the total size of the payments into USF is stable and declining, the key question becomes one of distribution: who pays, and how much? Put another way, how much of the USF burden is borne by consumers and how much is borne by businesses, and how is this changing over time?

With this central distributional question in mind, it is illustrative to think of USF as being paid for by a single person with multiple pockets. The amount paid each year is stable and in fact declining in real terms. But over time, the payments come less out of the left pocket, and more out of the right pocket. In this cartoon-level model, consumers and small businesses are the

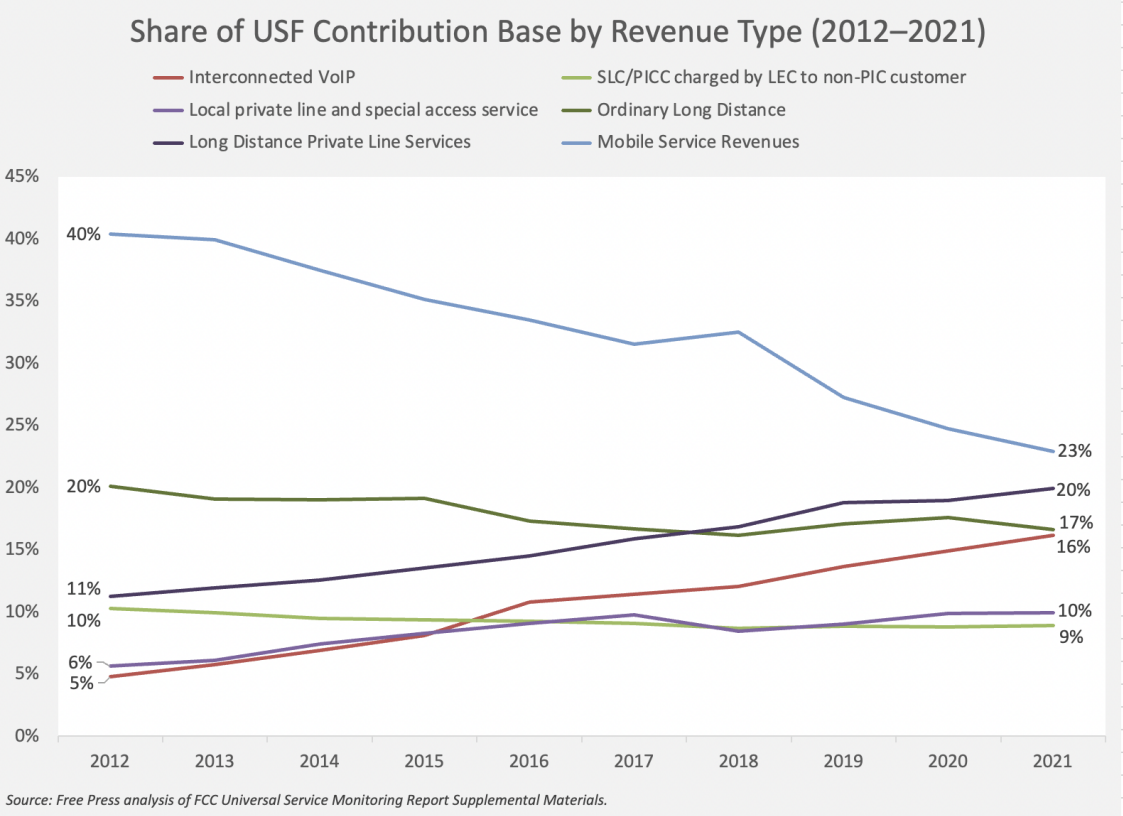
pocket that is paying less over time, and large businesses are paying more. As consumer advocates already wary of the regressive nature of USF fees on residential consumers, we view this shift as a positive development, and are even more wary of any so-called reforms that would shift more of the USF contribution burden away from big business and back onto consumers. Congress and the Commission should be equally wary of large monied interests hiding under the cover of the public's interest.

The Commission's data, which is largely missing from this debate, shows quite clearly that the contribution factor is increasing almost solely because of a sharp drop in the amount of contributions that flow in from interstate retail mobile revenues. As Figure 2 shows, in 2012 (the peak year for total USF spending on an inflation-adjusted basis) mobile revenues made up 40 percent of the assessable contribution revenues.[46] This declined to 23 percent in 2021. In real-dollar terms, this represents a nearly 60 percent decline in the contribution base coming from retail mobile carriers (and their customers).

As we're all keenly aware, cell phone bills certainly did not decline during this period, so what explains this sharp drop in the pool of mobile revenues that can be assessed for USF contributions? The answer is that mobile carriers made changes to their accounting, booking an increasingly smaller total of their revenues in the interstate voice category.

[46] This figure shows the six revenue types that account for the largest relative amounts to the USF contribution base. Not shown are: traditional circuit-switched, payphone coin revenues, other telecom service revenues, prepaid calling cards, alternative billing arrangement toll calls, satellite services, and all other long distance services.

Figure 2:



Because most mobile services are sold as a bundle of voice, SMS and data services at a single price point, it begs the question of how carriers decide how to allocate a portion of their customer's bill to each line of service, and whether or not there's purposeful manipulation. Yet we have no reason to believe that this decline in booked mobile voice revenues is anything but reflective of reality. As technology improves and competition in the interstate voice market increases, the prices of mobile voice service should decline.[47]

[47] A decline in the interstate minutes-of-use could also explain the decline in assessable interstate mobile revenues. However, data from CTIA suggests that total minutes-of-use increased between 2012 and 2021. It is also possible that the total minutes-of-use increased because of an increase in intrastate calls, and not interstate. These are all possibilities, but we believe the largest and most likely factor behind the decline in the interstate mobile revenue base is a real decline in the share of cell phone bills that are paid to interstate voice calls. Indeed, the Commission's reforms of the intercarrier compensation system have resulted in lower interstate access charges, which should result in lower long distance revenues overall.

Other services' interstate contribution bases are shrinking too, but not all of them. Understanding these changes is critical to measuring the distributional impacts of both status quo and alternative contribution policies. There are three services that are contributing more to the USF today: interconnected VoIP, local private line/special access services, and long distance private line services. In December 2022 real-dollar terms, between 2012 and 2021, interconnected VoIP's contributions increased 182 percent (as the number of VoIP lines grew, then peaked in 2019), private line/special access contributions increased 47 percent, and long distance private line contributions increased 48 percent.

Of these three service types, the latter two are products exclusively purchased by businesses. Interconnected VoIP is of course a service purchased by both businesses and consumers, but residential consumers are rapidly dropping wired voice services, while business subscriptions continue to rise.

Interconnected VoIP's total assessable interstate revenue base peaked in 2016 (on a real and nominal basis; the number of VoIP lines peaked in 2019, with residential VoIP line counts peaking in 2016). This peak and decline reflects the general residential consumer migration away from fixed voice services.

According to data from the BLS Consumer Expenditure Survey, 46 percent of households purchased residential telephone services (including interconnected VoIP) in 2013, which declined to 24.5 percent of households in 2021. Data from Form 477 confirms this residential decline: Residential interconnected VoIP subscriptions peaked in mid-2016 at 40.2 million. By mid 2022 (the most recent public Form 477 voice data) this declined to 29.5 million. And this consumer move away from residential VoIP lines is accelerating. From mid-2021 to mid-2022 the number of residential VoIP lines dropped 10 percent. However, the opposite trend is seen in business use

of VoIP. Between 2012 and mid-2022 the number of interconnected VoIP subscriptions purchased by businesses increased from 7.7 million to 38.5 million. The number of interconnected business VoIP lines increased by 13 percent between mid-2021 and mid-2022.

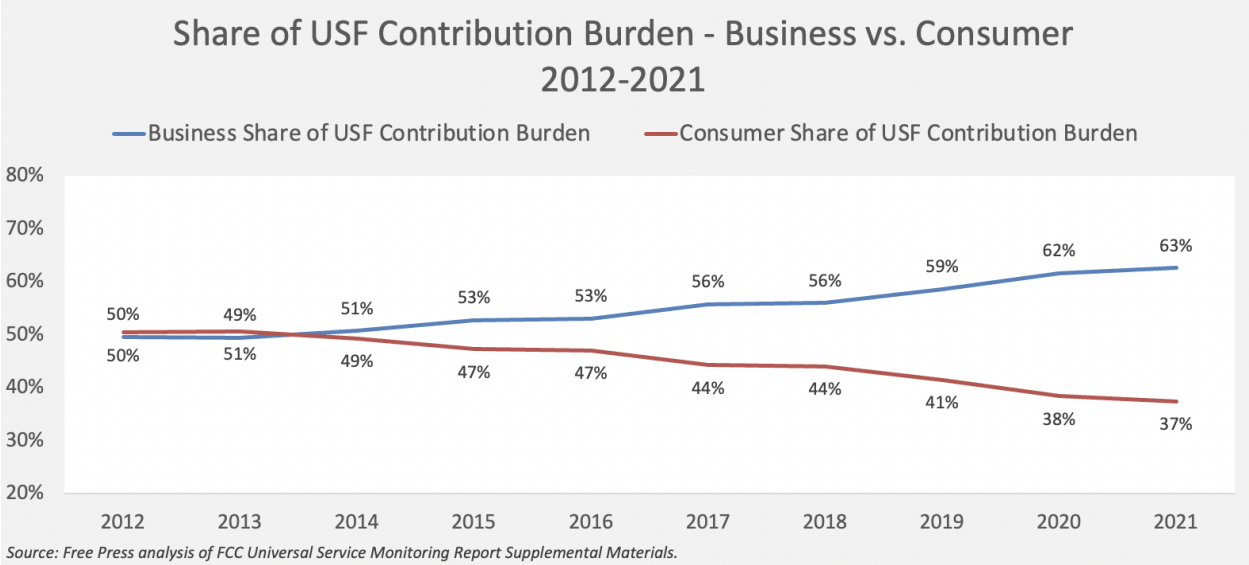
Taken together, these data indicate that over the past several years, residential consumers are paying less into USF in both relative and absolute terms, while large businesses are paying more. Consumers' USF burden from their mobile subscriptions is in sharp decline; their burden from circuit-switched is in decline; their burden from long distance is in decline; and though the overall contribution burden shouldered by VoIP increased in recent years, the percentage of households subscribing to VoIP (and the amount they pay for it) is rapidly declining.[48]

We estimate that the share of USF contributions passed through to businesses increased from approximately 50 percent in 2012 to approximately 63 percent in 2021. This means the share of the USF contribution burden passed through to residential consumers declined from approximately 50 percent in 2012 to approximately 37 percent in 2021 (see Figure 3 below). And because the nominal size of USF was flat during this period, with the real, inflation-adjusted value declining, this means that residential consumers are paying less in USF contributions today, even as the contribution factor rises. We estimate that the average household has seen a slight nominal decline and meaningful real decline in its USF contributions, from about $4.36 per month in 2012 to about $2.37 per month in 2021 (inflation-adjusted, December 2022 dollar values; see Figure 4 below). The Commission's most-recent analysis confirms our estimates.[49]

[48] According to data from the BLS Consumer Expenditure Survey, in 2013 all consumers (including those who spent $0) spent on average $317.42 on residential phone services for the year. For the 46 percent of households who purchased residential phone service, this equates to $68.64 per month in inflation-adjusted 2021 values. In 2020, all consumers spent $187.54 on average for residential phone services. Adjusting for inflation, this represents an average monthly expenditure of $57.21 for the 29 percent of households that purchased fixed voice.

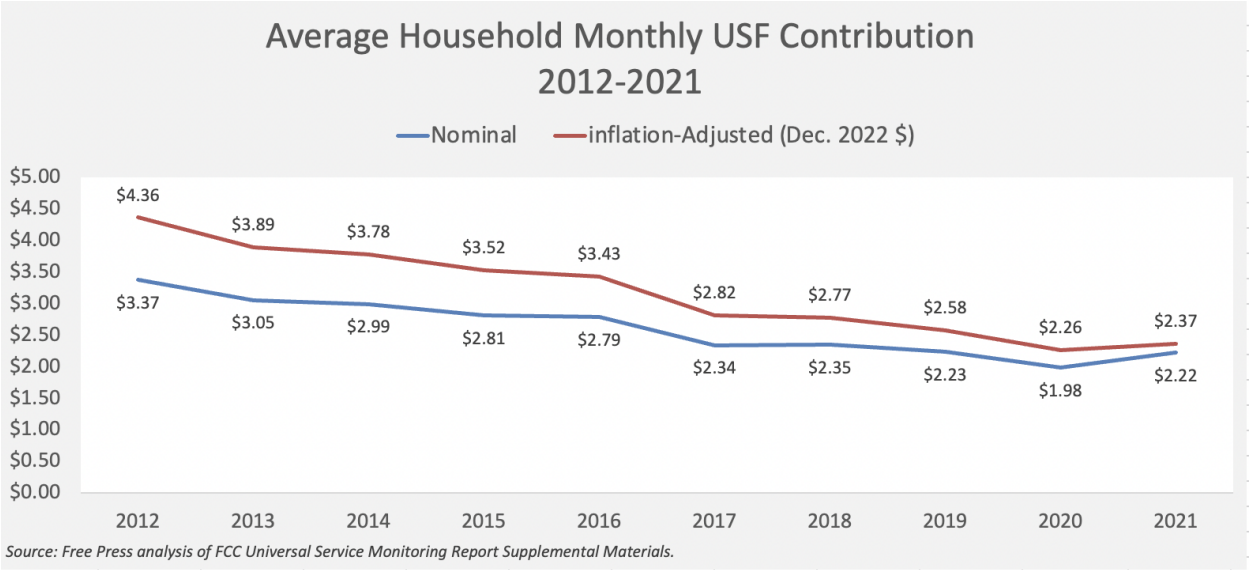
[49] *Future of USF Report* at Table 2.

Figure 3:



Source: Free Press analysis of FCC Universal Service Monitoring Report Supplemental Materials.

Figure 4:



Source: Free Press analysis of FCC Universal Service Monitoring Report Supplemental Materials.

Therefore any move to "broaden" the contribution base to retail broadband services could significantly shift the USF contribution burden away from businesses and towards consumers. This shift would impart disproportionate harm on low-income households already harmed by the home internet digital divide. We estimate that a connection-based contribution system could reduce the business burden to less than 25 percent of total contributions, and increase the

consumer burden to more than 75 percent. An expanded revenues-based contribution system (*i.e.*, one that includes broadband revenues in the assessable base) would also substantially reduce the business burden, down to approximately 30 percent, and increase the consumer burden to approximately 70 percent. Either method would produce a disproportionate impact on low-income broadband adoption, due to the higher price sensitivities among these users and potential users.

The corporations' supposed contribution "reform" plan is little more than a reverse-Robin Hood: Assuming the full increase to the overall USF from e-Rate's potential growth, the plan to tax broadband for USF would result in a massive $4 billion annual wealth transfer from consumers to giant companies. Particularly in an era of historic and compounding wealth inequality, acquiescing to such a scheme would have Congress and the Commission buying into self-interested industry spin and providing yet more tax cuts to those who need it the least. Fortunately, in the *Future of USF Report*, this Commission recognized the importance of ensuring residential consumers are not forced to shoulder a greater burden of the USF, as this would not bring any greater stability to the fund and would only benefit big businesses.[50]

Given that the Commission's current classification of broadband as an information service means broadband customers are denied all of Title II's consumer protections, making them shoulder a higher USF contribution burden so that big businesses can lower theirs is plainly not in the public interest. There is simply no good reason to adjust the current status quo contribution policies until broadband is properly classified as a telecommunications service, especially given the fact that the total size of the USF is not increasing, and even after that reclassification the policy would be of dubious merit based on the distributional analysis above. Increasing the cost of broadband is especially counterproductive to Congress's affordability

[50] *Future of USF Report* ¶ 106.

goals, as low-income households are the most-price sensitive consumer cohort, and already face unsustainable inflation in many essential goods and services.

We strongly believe that Congress should appropriate all necessary universal service funds, as this would be a less regressive assessment method and would reduce the inefficiencies created by placing a famously captured regulatory body in the role of appropriator. However, if Congress or the Commission determine that information services should pay into the USF, we suggest looking at other information services that benefit from having a fully-addressable audience.[51]

V. Conclusion

The Infrastructure Act presents Congress and the Commission with the opportunity to shake off the weight of a quarter-century's worth of path-dependent USF policy making. Congress has appropriated more than enough funds to ensure adequate broadband facilities are available to every person in every corner of the nation. Policy makers should now work on reducing and eliminating all unnecessary high cost subsidies, and focus on ensuring that the broadband market is maximally competitive and that it offers affordable options to everyone.

Achieving and maintaining the end goal of universally available broadband requires that Congress, not ratepayers, provide the funding needed to ensure the availability of quality services at reasonably comparable prices in high-cost areas. And to ensure that the recent gains made in closing the low-income digital divide are not lost, Congress must make the Affordable Connectivity Program permanent, and appropriate additional funding at the levels needed to ensure equitable broadband access.

[51] *See, e.g.,* Federal Communications Commission, Press Release, Office of Commissioner Brendan Carr, "Carr Calls for Ending Big Tech's Free Ride on the Internet" (rel. May 24, 2021).

Respectfully submitted,

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