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**Wasteful Duplication by Design:
A Case Study on Overlapping Federal Broadband Subsidies**

by

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I. Introduction and Summary

At the Free State Foundation's Fifteenth Annual Policy Conference on March 28, 2023, Rick Chessen, NCTA – The Internet & Television Association Senior Vice President, Law & Regulatory Policy, drew helpful attention to the FCC's Broadband Funding Map, which is supposed to be released by May 15, 2023, in accordance with a congressionally-mandated deadline. No, not the FCC's [National Broadband Map](#), which was unveiled in draft form last November and is designed to depict visually whether each serviceable location in the United States has access to "broadband" (presently defined by the Commission as 25 Megabits per second (Mbps) downstream and 3 Mbps upstream).

The Broadband Funding Map, the creation of which Congress required in the [Infrastructure Investment and Jobs Act](#) (IIJA), is intended to serve a different, if related, important purpose: to highlight those areas to which federal subsidies have been allocated for the construction of broadband infrastructure in order to facilitate interagency coordination and, more to the point, avoid duplicate grants.

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Given the sizeable dollar totals (hundreds of billions), number of programs (130 and counting), and agencies (15 or more) involved, there are valid reasons to worry that scattershot federal efforts to subsidize the expansion of broadband infrastructure will lead to overlapping grants, not to mention waste, fraud, and abuse. Therefore, effective interagency coordination is essential. The Broadband Funding Map certainly can assist efforts to ensure that the huge amount of available funds is used wisely and that waste is minimized.

What tends to get lost in the mix, however, is the fact that – whether intentionally or due to the absence of a much-needed overarching national strategy – different eligibility requirements (minimum speed thresholds, approved distribution technologies, and so on) across programs virtually guarantee that taxpayer money in fact will be used to subsidize the construction of broadband infrastructure in areas where privately financed networks already exist, subsidies from other federal programs have been allocated, or both. In the case study presented below, I offer some real-world examples from my own backyard to illustrate how that might come to pass.

Because duplication is "baked into the cake," as it were, the utility of the Broadband Funding Map, and oversight efforts generally, will be hamstrung unless and until the Biden Administration, Congress, and/or the various agencies tasked with distributing federal subsidies take action to align program eligibility requirements so as to prevent overlapping grants targeting a single location due to technical variations buried in the fine print.

As I highlighted in a [recent post to the FSF Blog](#), ranking member Senator John Thune (R-SD), as part of his ongoing efforts championing meaningful oversight of broadband spending, partnered with the chairman of the Commerce Committee's Subcommittee on Communications, Media, and Broadband, Senator Ben Ray Lujan (D-NM) to push the Government Accountability Office (GAO) to "conduct an additional review of federal, state, and local broadband efforts to determine the effectiveness of each program." (Senator Thune referenced a [May 2022 GAO report](#) noting that "there are more than 130 federal broadband programs that are administered by 15 federal agencies" in his [prerecorded remarks](#) delivered at the Free State Foundation's Fifteenth Annual Policy Conference.)

In their [coauthored letter](#), the Senators posed a series of important questions, including "[h]ow often have federal programs' funding overlapped other federal programs and on what basis did they do so." The case study I present below identifies conflicting technical definitions – primarily with respect to speed thresholds and eligible distribution technologies – as principal culprits:

- The FCC – including its National Broadband Map, which serves as both (1) the definitive source of broadband availability information for a number of federal subsidy programs, and (2) the evidentiary foundation for the Broadband Funding Map – currently identifies a location as "served" if it has access to Internet speeds of at least 25/3 Mbps. However, the fact that a specific location is depicted on the National Broadband Map using the color green is by no means the end of the story.

- The [Notice of Funding Opportunity](#) (NOFO) for the \$42.45 billion Broadband Equity, Access, and Deployment (BEAD) Program, managed by the National Telecommunications and Information Administration (NTIA), treats a location with speeds less than 100/20 Mbps as "underserved" and therefore potentially eligible for subsidies. In addition, it ignores offerings that utilize satellites or unlicensed spectrum to deliver service, no matter how fast the speed. And despite its strong pro-fiber bias, which defies the IIA's clear embrace of technological neutrality, the NOFO leaves room for the possibility that BEAD Program money could be used to construct a non-fiber network – say, one that utilizes licensed spectrum – where the cost to deploy fiber is prohibitively high.
- Meanwhile, the [Department of Agriculture's \\$3 billion and counting ReConnect Program](#), administered by its Rural Utilities Service, considers a location to be served only if "fixed, terrestrial" service at speeds of at least 100/20 Mbps is available – satellite and fixed wireless providers, whether operating in licensed or unlicensed spectrum, don't count. Consequently, that hypothetical BEAD Program-funded fixed wireless network operating in licensed spectrum mentioned above, pursued perhaps in response to terrain-based challenges, would not serve as a bar to a second grant of taxpayer dollars. Moreover, because the ReConnect Program's rules require that only 50 percent of locations served by a proposed network lack access to broadband, half of that money could be used to subsidize competition to locations undeniably already served – including those with access to fixed, terrestrial service, even fiber-based offerings.
- The [Guidance](#) for the [Department of Treasury's \\$10 billion Capital Projects Fund](#) (CPF) similarly ignores non-wireline distribution platforms. It also encourages applicants to be creative in finding reasons to dismiss existing providers, explicitly stating that "whether there is a provider serving the area that advertises or otherwise claims to offer broadband at a given speeds is not dispositive." And as implemented by the [Colorado Broadband Office](#), any location "that lack[s] access to reliable, wireline internet access of at least 100/20 Mbps" is deemed eligible for subsidized entry – so if ReConnect Program money isn't used to overbuild an existing fixed-wireless service, then perhaps CPF dollars will be.
- Lastly, the [Final Rule](#) for [Treasury's \\$350 billion State and Local Fiscal Recovery Funds](#) (SLFRF) Program, in the name of "greater flexibility," largely disregards altogether the presence of existing service providers: "given that many federal broadband grant programs are focused solely on unserved and underserved areas, Treasury believes that the final rule's flexibility enables these funds to fill an important role in the overall federal broadband landscape." The outer limits of this "greater flexibility" are unknown, but one reasonably can assume that they are at least as accommodating as those noted above for the ReConnect and CPF programs – and potentially even more so. In other words, SLFRF Program money might be made

available *on top of* some combination of ReConnect, CPF, and BEAD Program funds, without regard to whatever other funds already are available in the marketplace.

The case study presented below focuses on a neighborhood near where I live in the foothills west of Denver. It offers a real-world (if, in some cases, necessarily hypothetical at this point in the various grant-awarding processes) illustration of how the inconsistent eligibility requirements associated with the federal programs identified above, which make up the bulk of potential funding dollars, open the door to overlapping grants. Keep in mind, too, that these are but the four largest sources of subsidies – there are more than 125 others.

II. The Broadband Funding Map

Section 60105(b) of the [Infrastructure Investment and Jobs Act](#) (IIJA) states that "[n]ot later than 18 months after the date of enactment of this Act, the Commission shall, in consultation with all relevant Federal agencies, establish an online mapping tool to provide a locations overview of the overall geographic footprint of each broadband infrastructure deployment project funded by the Federal Government." The IIJA was signed into law on November 15, 2021. The deadline by which the FCC must create the Broadband Funding Map therefore is fast approaching: May 15, 2023.

The Broadband Funding Map is to serve as "the centralized, authoritative source of information on funding made available by the Federal Government for broadband infrastructure in the United States." It must include subsidies provided by the FCC, NTIA, the Department of Agriculture, and the Department of Treasury, as well as "any other Federal agency that provides such data relating to broadband infrastructure deployment funding to the Commission."

The Broadband Funding Map must incorporate the type of network with committed funding (wired, terrestrial fixed wireless, mobile, satellite) and enable searches based upon, among other details, duration timeline (that is, project beginning and end date), number of locations that the project will serve, and speeds (both upstream and downstream). Significantly, it must cross-reference the broadband service availability information presented by the National Broadband Map.

At the Free State Foundation's recent Fifteenth Annual Policy Conference, NCTA – The Internet & Television Association Senior Vice President, Law & Regulatory Policy, Rick Chessen [stated the following](#):

I'd also like to mention something else, because I think coordination is key here. There's a map that I don't think people have really focused on at the FCC. Everybody knows about the one map that the FCC is working on ... [showing] coverage around the country. There's another map that the FCC is working on under the Infrastructure Act.... And that one shows where all the money's going from all of the federal programs.... Everything will show up where there's enforceable commitments. Because the FCC map only shows what's

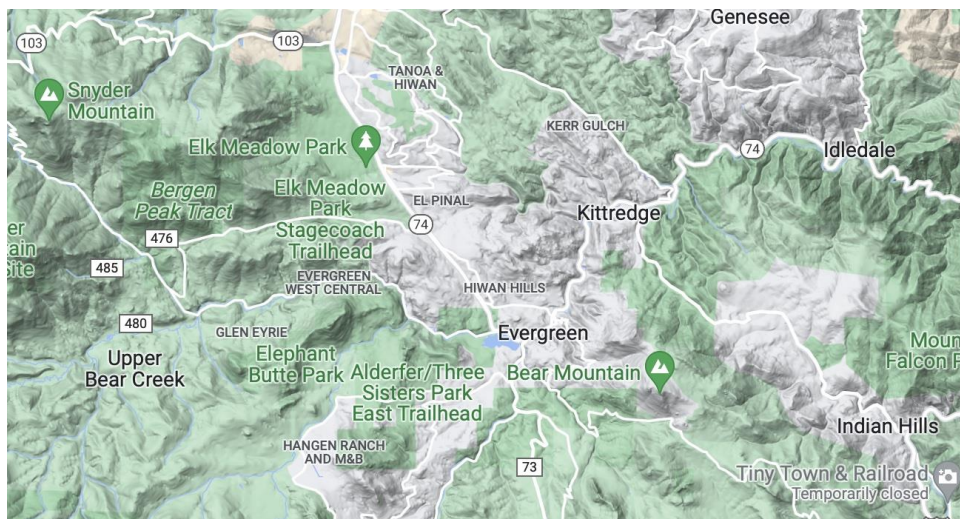
actually served now. This map will show what government has committed to over the next few years. So if we really want to prevent overbuilding, we need to take that map that shows where the money is going to be going ... and hopefully even overlay the FCC map to show where coverage is to see where those real gaps are. Where are the places that not only don't have coverage now, but that won't have coverage in four, five years.

Similarly, I have [written optimistically](#) about the potential value of the Broadband Funding Map as an oversight tool – one that provides a visual representation of those areas to which federal programs have promised funding (and therefore those where additional dollars ought not to go). But when instances of duplication are the result not of a breakdown in interagency coordination, but instead are the permissible product of conflicting program eligibility requirements, it's not yet clear how useful that map will be.

III. A Case Study Centered on the Colorado Front Range

A real-world example can help illustrate how federal agencies' deliberately inconsistent choices with respect to program eligibility will lead to duplicate funding. What follows is a case study informed by my own personal experience and, given that the bulk of allocation decisions have not yet been made, grounded in some hypotheticals. For simplicity's sake, it focuses on only the four largest subsidy programs: (1) NTIA's \$42.45 billion BEAD Program, (2) the Department of Agriculture's \$3 billion (disbursed to date) ReConnect Program, (3) Treasury's \$10 billion Capital Projects Fund (CPF), and (4) Treasury's \$350 billion State and Local Fiscal Recovery Funds (SLFRF) Program.

I live in the foothills west of Denver, Colorado, an area dominated by what would seem to be, from a broadband infrastructure construction perspective, challenging geographic features: mountains, gulches, streams, rocky terrain, and so forth, as the topographic map below illustrates:



Source: [Google Maps](#)

Nevertheless, according to the FCC's [National Broadband Map](#), I am able to choose from six different fixed options, four of which meet or exceed the Commission's current "broadband" definition (25/3 Mbps):

Distribution Technology	Speed
Cable	1200/35 Mbps
GSO Satellite	25/3 Mbps
Copper	10/1 Mbps
NGSO Satellite	100/10 Mbps
Licensed Fixed Wireless	0.2/0.2 Mbps
GSO Satellite	150/3 Mbps

In addition, all three national wireless carriers offer LTE and 5G mobile broadband in my area. A recent Ookla speed test of the wireless service to which I subscribe revealed LTE speeds of 414/1.53 Mbps. Impressive from a downstream perspective, if a bit shy of the FCC's 3 Mbps upstream floor.

The response to the threshold question – "am I served?" – is, of course, "of course!" I have access to fixed broadband service at speeds that exceed a gigabit in the downstream direction – and provide more than adequate upstream capacity: 35 Mbps. Fortunately, the FCC agrees, and the National Broadband Map depicts my location in green, which signifies that I do have access to "broadband."

Roughly six minutes and less than 2 miles away, however, there is a cluster of homes that, according to the National Broadband Map, lack *terrestrial* broadband access at speeds greater than 10/1 Mbps – specifically, copper-based Digital Subscriber Line (DSL) service. To be sure, the FCC still considers this neighborhood to be "served," and appropriately so, as there are *six* different options from which consumers can choose, four of which at speeds that meet or exceed the Commission's 25/3 Mbps definition of "broadband":

Distribution Technology	Speed
GSO Satellite	25/3 Mbps
Unlicensed Fixed Wireless	100/20 Mbps
Copper	10/1 Mbps
NGSO Satellite	100/10 Mbps
Licensed Fixed Wireless	0.2/0.2 Mbps
GSO Satellite	150/3 Mbps

And yet, it would appear that this area, abundantly served by multiple privately funded providers, is eligible to receive federal government subsidies from each of the top four programs that are the subject of this case study.

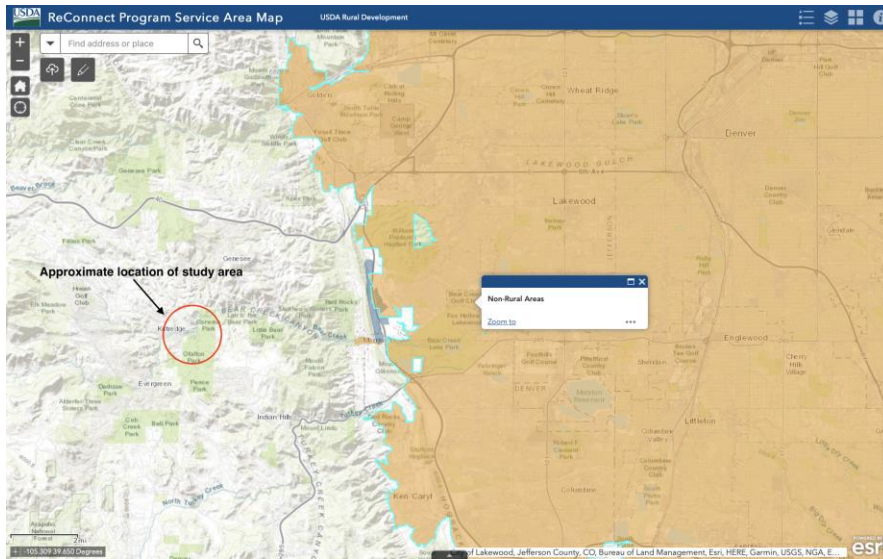
BEAD Program. Section 60102(a)(1)(A) of the [Infrastructure Investment and Jobs Act](#) (IIJA) defines an "unserved location" as one without access to broadband at speeds or above 25/3

Mbps. Subsection (C) defines an "underserved location" as one with access to speeds at/above 25/3 Mbps but less than 100/20 Mbps. Under the plain language of the statute, then, these homes are served – by a provider utilizing unlicensed spectrum to deliver service at 100/20 Mbps.

However, as I pointed out in "[Future Guidance Can Fix NTIA's Flawed "Fiber-First" Approach](#)," a May 2022 *Perspectives from FSF Scholars*, NTIA's BEAD Program [Notice of Funding Opportunity](#) (NOFO), in a clear rejection of the IJA's technology neutral approach, expressly excludes commercially proven options that rely upon unlicensed spectrum or satellites from the definition of "Reliable Broadband Service": "locations served exclusively by satellite [or] services using entirely unlicensed spectrum ... do not meet the criteria for Reliable Broadband Service and so will be considered 'unserved.'" From NTIA's perspective, then, none of the four providers that today offer broadband to these locations at download speeds that start at 25 Mbps and go up to 150 Mbps constitute "Reliable Broadband Service" – and, as such, taxpayer dollars are available to subsidize a *seventh* entrant.

And should that seventh provider be permitted, via a waiver, to utilize a distribution technology other than fiber and, say, construct a broadband network that leverages *licensed* wireless spectrum to serve this neighborhood, then that would leave the door open for redundant funding from other federal programs, as explained below. As noted above, the foothills where I live do present geographic challenges that could make a so-called "Priority Broadband Project" (defined in the NOFO as "a project that will provision service via end-to-end fiber-optic facilities to each end-user premises") prohibitively expensive – which, incidentally, could explain why this neighborhood is served today by a provider utilizing unlicensed spectrum.

ReConnect Program. It also appears that this already served neighborhood satisfies the eligibility requirements for the ReConnect Program – and could even receive funding from the Department of Agriculture's Rural Utilities Service (RUS) *in addition to* the BEAD Program. First, and somewhat surprisingly, pursuant to the relevant [service area map](#), the RUS considers this area to be "rural" (to be precise, not "non-rural"):



Second, the [Funding Opportunity Announcement](#) for the ReConnect Program's current (fourth) funding round limits the definition of "sufficient access to broadband" to "any rural area in which households have *fixed, terrestrial* broadband service defined as 100 megabits per second (Mbps) downstream and 20 Mbps upstream" (emphasis added). Accordingly, satellite-based and wireless (critically, both licensed and unlicensed) offerings have no bearing on the determination as to whether a location is served. Thus, as a direct result of conflicting eligibility requirements, the fact that this neighborhood already has access to broadband at speeds that exceed the FCC's current definition (25/3 Mbps), and even meet the [updated definition floated last year by Chairwoman Jessica Rosenworcel \(100/20 Mbps\)](#), would not stand in the way of the use of taxpayer dollars to subsidize additional competitive entry. And again, because the existing service utilizes *unlicensed* spectrum, that ReConnect Program grant for a wireline network potentially could be made *in addition to* BEAD Program subsidies targeting a fixed wireless network operating in *licensed* spectrum – especially given that networks receiving ReConnect Program funds must be capable of delivering 100/100 Mbps symmetrical speeds. (Effectively, they must be fiber-based.)

Moreover, because the ReConnect Program's [eligibility requirements](#) state that *only* "50% of households in the proposed funded service area (PFSA) must lack sufficient access to broadband service," it seems highly likely that a funding recipient would define that PFSA broadly enough to allow it to target nearby homes that already have access to 1200/35 Mbps from the local cable operator – perhaps casting a net sufficiently wide to cover the street upon which I live. Federal broadband policy should encourage, not undermine, private investment and entry. The substantial subsidized competitive entry allowed by the RUS is an unfortunate outcome in terms of investment incentives, not to mention a poor use of taxpayer dollars.

The Capital Projects Fund (CPF). Similar to the ReConnect Program, the eligibility requirements established by the [Colorado Broadband Office](#) for the \$177 million in CPF dollars it will disburse treat as unserved ("eligible") "those that lack access to *reliable, wireline* internet access of at least 100/20 Mbps" (emphasis added). They also require funded

projects to deliver 100/100 symmetrical service – i.e., that they be fiber-based. Consequently, CPF dollars could be used to subsidize the construction of terrestrial broadband infrastructure in addition to a BEAD Program-funded wireless network that utilized licensed spectrum. Further, and as I detailed in "[Treasury Department Resurrects the Scary Biden Broadband Plan](#)," an October 2021 *Perspectives from FSF Scholars*, the word "reliable" does a lot of heavy lifting, seemingly empowering an applicant to disregard an existing wireline provider for any number of reasons. As the [CPF Program Guidelines](#) make plain, applicants are free to:

Take into account a variety of factors, including whether users actually receive internet service at or above speed thresholds at all hours of the day, whether factors other than speed such as latency or jitter, or deterioration of the existing connections make their user experience unreliable, and whether the existing service is being delivered by legacy technologies, such as copper telephone lines (typically using Digital Subscriber Line technology) or early versions of cable system technology (DOCSIS 2.0 or earlier)... Recipients may consider the actual experience of current broadband customers when making their determinations; and *whether there is a provider serving the area that advertises or otherwise claims to offer broadband at a given speed is not dispositive.* (emphasis added).

The State and Local Fiscal Recovery Funds (SLFRF). Treasury's [Final Rule](#) for the SLFRF Program goes to even greater lengths to encourage overbuilding, a concern that Free State Foundation President Randolph May and I brought attention to in "[Self-Defeating Treasury Subsidy Rule Wrongly Champions Broadband Overbuilds](#)," a *Perspectives* published in January 2022. As we wrote at that time, the Final Rule "largely rejects the constraining concept of 'served' altogether," encouraging applicants to take advantage of "greater flexibility" and rely upon other factors, such as cost and competition barriers, "given that many federal broadband programs are focused solely on unserved and underserved areas." Such extreme latitude, which Treasury asserts without explanation "fill[s] an important role in the overall federal broadband landscape," encourages overlapping funding and overbuilds.

* * *

In sum, this neighborhood (a) is deemed served by the FCC (and identified as such on the National Broadband Map); (b) enjoys a choice between six different providers, four of which meet the Commission's current definition of "broadband" and one that delivers forward-looking speeds (100/20 Mbps); (c) likely faces geographic challenges that would render a fiber deployment prohibitively expensive and time-consuming, and thus potentially could justify a waiver allowing the construction of a fixed wireless network utilizing licensed spectrum; (d) might be eligible to receive additional funding from the ReConnect or CPF Program for a wireline (that is, fiber-based) project; and (e) could potentially obtain still more money from the SLFRF Program, which encourages applicants to take advantage of "greater flexibility" and consider a host of other factors beyond whether an area already is served.

Unfortunately, it is hard to imagine how the FCC's Broadband Funding Map, due on May 15, might present this information in such a way that is useful to oversight efforts focused on avoiding duplication, waste, fraud, and abuse.

IV. Conclusion

There are numerous reasons to fear that a significant and unacceptable portion of the hundreds of billions appropriated by Congress for the construction of broadband infrastructure in fact is not used to extend access to those discrete areas beyond the reach of existing networks. Waste, fraud, and abuse certainly are at or near the top of the list. So, too, are duplicate/overlapping grants that result from a lack of communication across the overwhelming number of different programs that have been created. But a key fact that many do not appreciate is that, given the inconsistent eligibility requirements adopted by different programs, redundancy won't result solely from a lack of effective coordination. Rather, the use of divergent criteria (minimum speed thresholds, acceptable distribution technologies, and so on) opens the door to a single location receiving funding from multiple sources – seemingly by design. The case study presented above brings this concern into sharp focus.

In response, the Biden Administration, Congress, and/or federal agencies should take prompt steps to close loopholes that permit duplicate grants targeting a single area. Otherwise, the Broadband Funding Map could serve as a visually complicated monument to government waste rather than an effective tool to prevent waste and inefficiency. And if that's the case, not only will taxpayers be the losers, but so too will those truly unserved who remain on the wrong side of the digital divide because funds were unwisely and unnecessarily disbursed.

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Further Readings

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