



Insight

Broadband Equity, Access, and Deployment Program: Consideration for Policymakers

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Executive Summary

- As a part of the Infrastructure Investment and Jobs Act, Congress allocated almost \$42.5 billion for a broadband deployment subsidy program designed to bring broadband connectivity to all Americans.
- In the next few months, states will begin working with the National Telecommunications and Information Administration (NTIA) to develop plans to distribute funding to local projects; getting these plans right will be critical to the success of the program as a whole.
- The NTIA and states should prioritize investments into areas that truly lack coverage rather than overbuilding networks already covered by private providers, as well as working with states to streamline the deployment process and reduce barriers to deployment that could waste taxpayer funds.

Introduction

In November 2021, President Biden signed into law the [Infrastructure Investment and Jobs Act](#), a \$1 trillion package with investments for a wide array of infrastructure projects. Among these is the creation of a few programs to address broadband adoption, including a permanent benefit for low-income Americans and a digital equity program. The largest of the Act's broadband programs, however, focuses on deployment to unserved areas: Congress allocated roughly \$42.5 billion for the [Broadband Equity, Access, and Deployment \(BEAD\) Program](#), which will grant funding for states to invest in broadband infrastructure. While the bill defined many of the bounds for how states can use the funds, the NTIA will also work with states and approve the plans, providing guidance in a few areas that could drastically impact the effectiveness of the program.

Broadband has become a critical aspect of modern life, but many Americans still lack [access](#) to even basic services. As a result, a growing digital divide threatens to hold back those without reliable broadband. Programs such as the [Rural Digital Opportunity Fund](#) and the [Connect America Fund](#) already provide funding to expand internet access to unserved areas, but still haven't solved the problem. The BEAD Program could, if done properly, be a major step forward in providing access to unserved populations.

At the same time, government funding programs come with tradeoffs and risks, and simply throwing money at the broadband challenge has failed in the past. The Phoenix Center [found](#), for example, that the \$4.7 billion Broadband Technology Opportunities Program failed to impact home broadband adoption rates, meaning taxpayer dollars were essentially wasted. Further, even with efforts to support adoption for low-income consumers, many Americans simply [choose](#) not to purchase broadband, meaning the subsidies have limited effect.

This paper focuses on the Act's BEAD Program and the larger question of infrastructure deployment, rather

than its provisions to provide support to low-income consumers. Policymakers should remain cognizant that even if done properly, subsidizing the deployment of broadband infrastructure may not lead to the outcomes that proponents envision. As the NTIA and state policymakers begin formulating guidance and plans for distributing funds, they must focus on maximizing the value of each dollar spent to ensure that it is best used to deliver broadband access to unserved Americans.

The Broadband Equity, Access, and Deployment Program

While the [Infrastructure Investment and Jobs Act](#) provides for a variety of broadband-related projects, the bill primarily supports a massive investment in the deployment of broadband infrastructure through the BEAD Program. Run through the NTIA, the BEAD Program has a budget of about \$42.5 billion and will grant funds to states to invest in broadband projects. The states will develop plans to be approved by the NTIA and then subgrant the funds to eligible projects.

Of note, the bill lays out the priorities for subgrants by the states.

First, the bill [requires](#) that states prioritize funding to ensuring broadband access in areas that are considered unserved (meaning areas lacking broadband at speeds of 25 Mbps down/3 Mbps up) before funding projects in areas with existing coverage. After certification that the state will ensure coverage to all unserved communities, the bill would then require states to prioritize underserved communities (100 Mbps down/20 Mbps up), followed by community anchor institutions such as libraries. The bill also requires states to develop a challenge process for local governments, nonprofits, or broadband providers to contest determinations made about whether a location has broadband. These priorities and processes are designed to ensure that the funding is focused on connecting unserved areas, and not overbuilding existing networks. States and the NTIA should adhere closely to this mandate and ensure transparency in the challenge process to bring connectivity to unserved and underserved areas.

Second, the bill would require any subgrantee receiving funds to build networks that meet specific speed, reliability, and security thresholds. Most notably, among these requirements is a speed threshold of 100 Mbps down/20 Mbps up. Theoretically, these requirements will ensure that funding goes to building networks that can remain functional as the needs of Americans shift and demand for broadband continues to increase. Although the bill sets the baseline of 100/20 speeds, the NTIA can, and likely will, evaluate different speed requirements above that baseline in its guidance to states.

In addition to these specific requirements, the bill also gives the NTIA a large amount of flexibility regarding the guidance and requirements of individual subgrants. For example, the NTIA could provide guidance regarding upgrading networks in the future. All too often, policymakers see broadband networks as a single investment, believing that, once the network exists, the costs cease. Yet broadband requires [constant investment](#) to continue to maintain and upgrade the network, ensuring users can use the service as intended. Without a plan for how to continue investing in networks, the networks supported now may quickly fall behind. While the bill says entities such as city-owned networks and public utilities that have traditionally struggled to continue investments in broadband networks can't be excluded from these projects, the NTIA can provide guidance that either limits the priority for these entities or favor them over private operators.

Finally, while the BEAD focuses on direct funding for deployment of infrastructure, states and cities can use the funds on a variety of projects, including data collection, connecting multi-family residential buildings, and broadband adoption. Further, the bill also includes a broad grant of authority to the NTIA to define any other

projects necessary to facilitate the goals of the program. This grant of authority gives the NTIA and states flexibility to address specific issues, such as local review processes and access issues.

Considerations for Policymakers: Service Standards for Broadband Grants

Service standards ensure support for the deployment of infrastructure will meet the needs of American consumers. At the same time, if regulators impose too high standards, it will limit opportunities for deployment and spend more taxpayer dollars than necessary to provide access to currently unserved Americans.

At the outset, proponents suggested the baseline service standards for any networks utilizing funding from the infrastructure process must have symmetrical speeds, meaning the network must support the same data flow capabilities when uploading (i.e., sending data) as when downloading (receiving). Proponents for this approach argued that a 100 Mbps down/100 Mbps up standard would ensure that the technology could [outlast](#) the development of new applications. In [practice](#), this would mean fiber-to-the-home would be the only technology supported by the new funding, leaving things such as satellite and fixed wireless behind. The bill explicitly rejected these calls, and instead settled on the 100 Mbps down/20 Mbps up standard.

As the NTIA and states begin the process of spending the funds, policymakers should reject calls to prioritize deployments with symmetrical speeds, as seen in early [iterations](#) of the bill, and focus instead on the actual needs of users. Congress approved this program to get unserved Americans [connected](#), and that should remain the primary goal. As a recent Deloitte report [highlights](#), the most significant value of broadband comes from increasing penetration and adoption, not incremental increases in speed. Further, [evidence](#) suggests consumers download significantly more data than they upload, meaning a symmetrical speed requirement would result in significant unused capacity. While higher speeds generally have more value for consumers, these considerations should play a secondary role to ensuring consumers get the services they actually need and taxpayer dollars do not get wasted overbuilding networks.

Imposing overly strict service requirements on new projects could foreclose different technologies from participating in the program. While [fiber-to-the-home](#), the preferred technology for symmetrical speed proponents, may currently be optimal for many communities, this isn't universal. Satellite, for example, may play a [significant role](#) in connecting those communities and households in which fiber deployments just don't make sense. Likewise, [fixed wireless](#) is increasingly becoming an option for harder-to-reach communities and urban environments, alike. Foreclosing these technologies from participation by arbitrarily requiring significant upload speeds consumers generally don't need would limit the potential growth of these technologies. It is impossible to know the potential capabilities of these technologies, or what new services could develop if given the chance.

Congress didn't include symmetrical speed requirements in the BEAD Program for a reason. The goal of this program is to get people connected and not to overbuild networks. Where it makes sense, policymakers should explore fiber-to-the-home options, as they may be the optimal deployment for many communities. But policymakers must also not foreclose other technologies from participation in the program by prioritizing significant upload speed requirements for new networks.

Considerations for Policymakers: Government-Owned Broadband Networks

The bill also requires states to allow non-private providers of broadband, such as public utilities, to participate in the program. Municipal broadband projects can use a variety of [models](#). For example, a public utility can

leverage existing infrastructure to build out broadband offerings, with the electricity offering remaining subject to utility rates. Or, a municipality could **build out** the necessary infrastructure and then partner with a private provider to operate the network, leveraging the expertise of industry to run the business efficiently. Proponents of municipal broadband projects see these as **a good option** for communities to inject competition into the market or bring broadband to areas left behind by the market.

These projects come with risks, however. First, when a government-owned broadband network (GON) is a part of a local electric utility, consumers face significant threats from **cross-subsidization**, charging captive electric utility ratepayers to upgrade broadband networks while artificially lowering prices in a competitive broadband market. Broadband networks require **significant investment**, and inefficient government operators often struggle to make the necessary investments to continue to upgrade and operate the network. To support the upgrades and better compete with their private counterparts, GONs can often shift costs to their captive ratepayers on the electric utility side of the business to support the competitive broadband side. Second, often these networks can't keep pace with private offerings, and end up becoming a major drain on taxpayers. For example, a municipal broadband project in Utah known as UTOPIA currently holds over **\$300 million in debt and operates at a loss**.

As the NTIA and states contemplate plans for disbursing these funds, policymakers must consider the relative risks of different broadband projects. While the BEAD Program requires policymakers to consider a wide array of entities when distributing funds, the NTIA's guidance should prioritize the private deployment of broadband networks to avoid these risks. Further, when municipalities wish to get more involved with the deployment of broadband services, the NTIA and states should prioritize public-private partnerships rather than entirely government-owned networks such as those adding broadband offerings to an existing electric utility. Finally, states and the NTIA should consider a provider's future ability to invest in the infrastructure, normally a challenge for GONs. By focusing on the private sector, regulators can avoid some of the most significant risks associated with GONs.

Considerations for Policymakers: Guidance on Administrative Costs and Streamlining Processes

Finally, the NTIA should work with states to streamline the deployment process and reduce barriers to deployment. There are many costs to deployment beyond just materials. Providers need access to public rights-of-way and infrastructure to install wires or collocate antennas—and thus must pay the necessary permitting fees, access fees, and make-ready fees. While not the focus of the BEAD Program, addressing these fees and delays will be a critical component for efficiently budgeting and distributing taxpayer funds.

Most notably, for many rural areas, **pole attachment** and **replacement** costs can serve as a significant barrier to deployment. For example, federal pole attachment regulations only apply to privately owned poles, meaning poles owned by municipalities or entities such as electric co-ops often come with significantly **higher fees** for attachments. When a pole needs to be replaced, the entire cost of the replacement is often shifted to the attaching party, even if the pole would likely need to be replaced in the near future regardless. These costs often serve as a **significant barrier** to broadband deployment, especially in unserved areas targeted by the BEAD Program. The NTIA should work with states to highlight these problems and suggest mitigation measures if a locality is receiving federal funds to deploy broadband.

Likewise, local government itself may add costs and delays by charging excessive right-of-way access fees or taking too long to process permitting applications. For example, a proposed Google fiber deployment in Kansas City required Google to obtain **37,000 permits** from the city on the Missouri side of the deployment alone, which would have cost the company approximately \$2 million had the city not waived the fees. As taxpayer

funds go to actual deployment, it will be critical for local governments to quickly process these applications and only charge fees necessary to cover costs for processing permits or overseeing the public rights-of-way. The NTIA should guide states on smart policies that require localities to comply with [fee caps and shot clocks](#) on review, as established by either [Federal Communications Commission rules](#) or state law. If a given locality lacks the necessary capacity to comply with federal or state requirements, the BEAD Program does give some leeway for funding to go to these offices, but this should only be explored when a given office lacks the necessary capacity.

Conclusion

The United States is making a significant investment in broadband infrastructure, and it is critical policymakers maximize the value of every taxpayer dollar spent. Above all, the program should ensure that all Americans lacking access to broadband can get online rather than overbuilding existing networks or subsidizing GONs in competitive markets. At the same time, barriers still exist, and regulators should consider how to mitigate potential harms as they invest in broadband infrastructure.