



May 5, 2023

Submitted via email to BEAD@NTIA.gov

Hon. Alan Davidson
Assistant Secretary of Commerce for Communications and Information Administrator
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Ave, NW
Washington, DC 20230

Re: Comments of EducationSuperHighway in Response to NTIA's Proposed BEAD Challenge Process Guidance

Dear Administrator Davidson:

EducationSuperHighway¹ welcomes the opportunity to comment on NTIA's proposed BEAD Challenge Process Guidance (Proposed Guidance).² We appreciate NTIA's efforts to provide guidance and outline a model framework to States, Territories, and Tribal entities (Eligible Entities) to utilize as they determine the locations, specifically multi-dwelling units (MDUs), within their jurisdiction that are eligible for BEAD funding and conduct a challenge process to validate and finalize those eligibility determinations.

Comments on NTIA's Proposed Challenge Process Guidance

1. Going Beyond the National Broadband Map

NTIA's Proposed Guidance will rightfully allow Eligible Entities to look beyond the Federal Communication Commission's (FCC) National Broadband Maps maps to address the special challenges with identifying unserved and underserved MDUs. According to the Proposed Guidance, Eligible Entities must "use the National Broadband Map as a starting point to identify the list of BEAD-eligible locations."³ EducationSuperHighway agrees with NTIA's proposal to

¹EducationSuperHighway is a national non-profit founded in 2012. Our mission is to close the digital divide for the 17 million households that have access to the Internet but can't afford to connect. We focus on America's most unconnected communities, where more than 25% of individuals do not have internet.

² NTIA, *Proposed BEAD Challenge Process Guidance*, Policy Notice (rel. Apr. 25, 2023) https://www.internetforall.gov/sites/default/files/2023-04/BEAD_Challenge_Process_Policy_Notice_-_Public_Comment_Draft_04.24.2023_0.pdf (Proposed Guidance).

³ *Proposed Guidance*, Section 5, stating, "[t]he goal of the BEAD challenge process is to ensure Eligible Entities identify the full universe of locations that are eligible for BEAD funding. In support of this goal, this section outlines

give Eligible Entities “upon approval of the Assistant Secretary, [the ability to] modify the set of locations it proposes to make eligible for BEAD funding to reflect data not present in the National Broadband Map.”⁴ This flexibility is necessary so that Eligible Entities can accurately address the connectivity needs of households living in unserved and underserved multi-family housing as intended by Congress in the Infrastructure Act.

EducationSuperHighway has consistently stated that the Federal Communication Commissions’ National Broadband Maps’ identification of MDUs as a single broadband-serviceable location (BSL), would limit the ability of Eligible Entities to determine whether the individual households within the MDU have access to reliable, 25/3 Mbps, low-latency broadband service. Without accurate unit-by-unit data, the FCC Maps significantly undercount the number of unserved and underserved MDUs and households living in multi-family housing. While the FCC considered the possibility of adding unit-level data within MDUs to the scope of the contract with its mapping vendor, and understood the utility of including this level of data, it did not move forward with this request.⁵

Likewise, the service availability data on the National Broadband Maps often overstates the availability of broadband service at multi-family housing and as a result these properties are often mislabeled as served. EducationSuperHighway has noted several instances, as summarized below, where a BSL shows as served on the FCC National Broadband Map, but the individual units within the MDU do not receive service:

- Provider offers a much more substantial service to the building manager’s office or commercial space (ex: Lumen Business Fiber+) than their inside wiring is capable of delivering to the residential units (ex: Lumen DSL).
- Provider has fiber-to-the-curb or building, but has no inside wiring infrastructure to the unit.
- Provider is able to deliver fiber to the building (FTTB) within 10 days, but only offers business internet services, and does not actually provide residential service.
- Technology is not capable of delivering 25/3 or 100/20 across *all* households simultaneously. ex: provider offers 100/20 DSL service, but needs to use pair-bonding to achieve that speed. In a 100 unit MDU, 100 DSL lines would be bonded into 50

the requirements for Eligible Entities to use the National Broadband Map as a starting point to identify the list of BEAD-eligible locations within their jurisdiction, prior to conducting a challenge process.”

⁴ *Proposed Guidance*, Section 6.

⁵ In its *Second Report and Order* and *Third Further Notice of Proposed Rulemaking, In the Matters of Establishing the Digital Opportunity Data Collection* at 17, the Commission debated on whether or not to include an analysis of individual units in MDUs in the FCC DATA Map. The Commission did not revisit the question of identifying household locations within MDUs in its Third Report and Order, and did not include this level of data in its contract with the FCC DATA map vendor.

connections, leaving 50 households served and 50 unserved.

- Inside wiring infrastructure is in a state of disrepair. Many public housing and affordable housing MDUs are 30-40 years old and wiring has not been adequately maintained.
- Provider's equipment, such as a Maine Distribution Frame (MDF) or Intermediate Distribution Frame (IDF), pedestal, node or potentially the central office, is not capable of delivering 25/3 or 100/20 across *all* households simultaneously without overbuilding the entire MDU.⁶
- Non-cellular, licensed Fixed Wireless Access (FWA) providers without existing equipment/service in the MDU could not meet the 10 day installation window. The individual household of an MDU does not have the ability to authorize a Licensed FWA provider to access rooftops, telco rooms, and run new wiring all the way to their unit This would require an agreement with the building owner and possibly permits.
- Cellular, licensed Fixed Wireless Access providers cap total users per tower on their network. All 100 households in an MDU could not simultaneously use service once that customer cap is met, because they are all using the same tower. ex: T-Mobile website states, "To ensure our home internet customers have the best connection, each area where service is available serves a set number of households."⁷
- State and local governments, as well as individuals, and other interested parties have been engaged in the FCC's challenge process already. The sheer magnitude of challenges⁸ that have been submitted should demonstrate a need for Eligible Entities to include supplemental data, and require additional data from ISPs, to make accurate determinations of served, unserved and underserved locations.

EducationSuperHighway specifically worked with partners in the City of Oakland to address errors with the availability of broadband service at multi-family housing on the National Broadband Maps. Since the November 18, 2022, release of the FCC Maps, the City of Oakland has focused on amending location and availability discrepancies for its multi-family dwellings units. To best serve Oakland's most vulnerable, the City needed an accurate accounting of the underserved and unserved households in Oakland, many of which reside within multifamily

⁶ MDF and IDF are industry standard designations for racks of networking equipment (switches) that help distribute the network throughout the property. If outdated they will not handle a high enough capacity to distribute the required bandwidth to each unit regardless of how large the backhaul signal coming into the property

⁷ T-Mobile includes this language in a pop up on its website to explain impact on the availability of service. The website notes that service mainly depends on location and number of customers in an area. The section is titled "What impacts availability?" and then there is a link to "Learn More"
<https://www.t-mobile.com/home-internet/eligibility/waitlist-sign-up>

⁸ The Federal Communications Commission notes that since the release of the National Broadband Map in November 2022, "the mapping team has processed challenges to availability data for over 4 million locations" and addresses availability "challenges to tens of thousands of locations every single day." Chairwoman Jessica Rosenworce, *The National Broadband Map – Getting Better All the Time*, dated March 23, 2023, available at <https://www.fcc.gov/news-events/notes/2023/03/23/national-broadband-map-getting-better-all-time> (Last accessed May 5, 2023)

properties. On behalf of the City, #OaklandUndivided (#OU), with guidance from EducationSuperHighway, performed desktop and physical assessments of multi-family dwelling properties serving Oakland families from low-income backgrounds within the CostQuest Fabric data.

#OaklandUndivided (#OU) performed a desktop assessment of 141 multiple-dwelling properties serving Oakland families from low-income backgrounds within the CostQuest Fabric data. Their location analysis revealed 3,850 missing units, 56 missing buildings, and 222 misidentified building types. Misidentified Broadband Serviceable Locations (BSLs) included those listed as businesses rather than residential properties. Using their results from this analysis, #OU submitted 500 location challenges. Following EducationSuperHighway’s recommendation to perform on-site physical assessments, #OaklandUndivided, in partnership with the Communications Workers of America Union (CWA), conducted an internal wiring assessment of twelve public housing complexes. Of the 12 properties surveyed, 9 were found to be reliant on legacy infrastructure, but the service availability status of these properties is currently mislabeled as “served” on the FCC Maps. As such, #OaklandUndivided has submitted nine availability challenges on behalf of the City of Oakland.

Furthermore, many Eligible Entities have already taken the stance they want more accurate information than what the FCC maps provides by investing significant time and resources in gathering data and creating more detailed state-level broadband maps.⁹ Eligible Entities should be able to use all of this supplemental data as they work to identify the full universe of locations that are eligible for BEAD funding in order to fully comply with the Infrastructure Act and the guidelines of the BEAD Notice of Funding Opportunity (NOFO).¹⁰

2. Modifications to Reflect Data Not Present in the National Broadband Map - Optional Modules

EducationSuperHighway also applauds NTIA for giving Eligible Entities the ability to “modify the designation of a location as served, underserved or unserved on the National Broadband Map and, subject to the challenge process, to reflect data not present in the National

⁹ *States are Making Their Own Broadband Maps to Challenge the FCC’s Data*, dated August 8, 2022, available at <https://broadbandbreakfast.com/2022/08/states-are-making-their-own-broadband-maps-to-challenge-the-fccs-data/> (Last accessed May 5, 2023). *See also*, Next Century Cities, *Broadband Mapping Across the US: Local, State and Federal Methods & Contradictions*, dated May 2021; available at https://nextcenturycities.org/wp-content/uploads/Next-Century-Cities_-_Report-on-Broadband-Mapping-Across-the-US-May-2021.pdf (Last Accessed May 5, 2023)

¹⁰ *See* Infrastructure Act Section 60102(F)(4) - Use of Funds specifically authorizes states to use BEAD dollars to install wired and wireless networks in multifamily housing; *see also*, and U.S. Department of Commerce, National Telecommunications and Information Administration (NTIA), *Broadband Equity, Access and Deployment (BEAD) Program, Notice of Funding Opportunity (NOFO)*, 2022, pg. 41, encouraging states to prioritize connecting MDUs that are in high-poverty or high-unconnected areas.

Broadband Map.”¹¹ The language in the Proposed Guidance, however, is somewhat confusing and could be clarified and revised with certain adjustments. EducationSuperHighway offers the specific suggestions outlined below and encourages NTIA to allow Eligible Entities to identify MDUs that are served by legacy technology, or do not have access to sufficient speeds, as part of the inventory of BEAD eligible locations in their Initial Proposal.

A. Recommended Clarification or Addition: Eligible Entities should be allowed to treat MDUs served only by DSL as unserved locations

As noted by way of example in the Proposed Guidance and Model Challenge Process, Eligible Entities may choose to treat locations showing available qualifying broadband service (i.e., a location that is “served”) delivered via DSL as “underserved” to facilitate the phase-out of legacy copper facilities and ensure the delivery of “future-proof” broadband service.¹² However, we urge NTIA and Eligible Entities to treat MDUs shown as served by DSL as unserved locations. All of the households in a MDU with DSL service experience different speeds based on the distance of the copper runs from the unit to the ISP's facilities. Providers try to overcome this limitation of DSL by pair-bonding copper wiring. In doing so, they effectively take 2 copper lines and turn them into one connection. As a result, only 1 of 2 households would have access to service; consequently, a substantial share of households would now be unserved.

B. Recommended Clarification or Addition: NTIA should advise Eligible Entities, and give them the ability to treat BSLs, as unserved if the appropriate speed tests reflect the location receiving service that is materially below 25 Mbps down or 3 Mbps

Additionally, allowing Eligible Entities to use “rigorous speed test methodologies to demonstrate that the “served” locations on the FCC Maps actually receiving service that is materially below 100 Mbps downstream and 20 Mbps upstream” should therefore be labeled underserved is the appropriate guidance. We recommend NTIA also advise Eligible Entities, and give them the ability to treat BSLs, as unserved if the appropriate speed tests reflect the location receiving service that is materially below 25 Mbps down or 3 Mbps. This modification will better reflect the locations eligible for BEAD funding because it will ensure the delivery of consistent broadband access.

C. Recommended Clarification or Addition: Include an Optional Module for Licensed Fixed Wireless Modifications

Finally, we also urge NTIA to consider including an Optional Module in the BEAD Model Challenge Process and guidance on evaluating licensed fixed wireless and allow Eligible Entities to make modifications to locations that are only served by this technology. Locations

¹¹ *Proposed Guidance*, Section 6.1 at page 10

¹² *BEAD Model Challenge Process*, Optional Module 2, see page 9

which have connectivity solely delivered by licensed fixed wireless providers who are leveraging cellular technologies should be reclassified in bulk as underserved, as they are unable to meet the served requirements. According to speedtest.net, as of March 2023, the median cellular internet speeds in the United States are approximately 80 Mbps download and 10 Mbps upload, which do not meet the definition of served.¹³

Additionally, cellular networks, by design, have a significant drop-off of data rates the farther a user is from the source (e.g. tower). Marketed data rates commonly are not reached at even only 1-2 miles from the cellular source. While these types of providers may not impose unreasonable data caps, they do employ network de-prioritization for heavy data users. A heavy data user could be defined as a customer using as little as 50Gb of data in a single bill cycle. These customers can experience extreme data throttling (i.e., reducing bandwidth allocation) during periods of high demand when a network is congested; consequently, users will often experience inconsistent broadband service, including the inability to access speeds of 25/3 or 100/20 to meet the underserved and served requirements of the BEAD Program. NTIA should allow Eligible Entities to treat the locations that the National Broadband Map shows to only have available qualifying broadband service (i.e., a location that is “served”) delivered via cellular-based Licensed Fixed Wireless (e.g., T-Mobile 4G/5G Home Internet) as “unserved” and modify locations accordingly. Including this modification will better reflect the locations eligible for BEAD funding.

Overall, we agree with NTIA’s Proposed Guidance to allow modifications of location classifications. Eligible Entities will have the much needed flexibility to address and correct the short-comings of the FCC’s Map with supplemental data, ensure proper identification of which of their MDUs are eligible for BEAD funding, and allocate funding according to the prioritizations outlined in BEAD.

3. BEAD Challenge Process Allowable Challenges - Requiring unit level data from Internet Service Providers (ISPs) is reasonable and necessary

As previously noted, many states have created their own broadband maps. These maps often include detailed information sourced from community members and Internet Service Providers. In fact, many states already require information from ISPs, even if it is the exact same info they provided to the FCC, in order to participate in state grant funding opportunities.¹⁴ For example, the Texas Broadband Development Office (BDO) notes that

¹³ See, Speed Test Global Index ranking mobile and fixed broadband speeds from around the world on a monthly basis available at <https://www.speedtest.net/global-index/united-states> (Last accessed May 5, 2023)

¹⁴ See, Texas Broadband Development Office, BDO Map: Frequently Asked Questions (FAQ); Purpose of Collecting TX ISP Broadband Serviceable Location Data. The Texas Broadband Development Office states in response to the FAQ, "Why am I being requested to submit broadband service availability data for the Texas Broadband Map?" that the "BDO understands that many ISPs are submitting broadband service data to both the FCC as well as to Texas and it can be burdensome, but the data being asked for is the type and format of data needed

"mapping of broadband availability to all residential and business locations by address is a precise way to determine the unserved in Texas that will then be available for grant funded project submissions."¹⁵ The BDO also notes that "prior efforts and methods resulted in significant overstatement of where broadband service is available" and "ISPs should have a list of addresses either from marketing or billing of currently served locations."¹⁶ Allowing Eligible Entities to go beyond the FCC Maps, and requiring more granular data from ISPs during the challenge process, is reasonable and should not be considered unduly burdensome on providers.

Thank you for the opportunity to comment on the Proposed BEAD Challenge Process Guidance. Accordingly, EducationSuperHighway respectfully requests NTIA to consider these comments during the process of finalizing the language of the Proposed BEAD Challenge Process Guidance and BEAD Model Challenge Process.

Respectfully submitted,

Evan Marwell
Founder and CEO
EducationSuperHighway
6 Presidio Terrace
San Francisco, CA 94118
Phone: 415-275-1307

Adeyinka Ogunlegan
Vice President, Government Affairs
EducationSuperHighway
6 Presidio Terrace
San Francisco, CA 94118
Phone: 415-275-1307

by GIS specialists to create the broadband service availability maps." available at <https://comptroller.texas.gov/programs/broadband/outreach/isp/isp-faq.php> (Last accessed May 5, 2023)

¹⁵ *Id.*

¹⁶ *Id.*

