Before the
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
Washington, DC 20230

In the Matter of	)	
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Infrastructure Investment and Jobs Act Implementation	)	Docket No. 220105-0002
	)	
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COMMENTS OF COMMON SENSE

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I. Introduction

Common Sense Media, (collectively "Common Sense") hereby respectfully submits comments on the National Telecommunication and Information Administration ("NTIA") implementation of the Broadband, Equity, Access, and Deployment Program ("BEAD"), the Digital Equity Act, and the Middle Mile Broadband Infrastructure Grant Program ("MMBI") as part of the Infrastructure Investment and Jobs Act of 2021 ("IIJA").

Common Sense is the nation's leading independent nonprofit organization dedicated to helping kids and families thrive in a world of media and technology. We empower parents, teachers, and policymakers by providing unbiased information, trusted advice, and innovative tools to help them harness the power of media and technology as a positive force in all kids' lives. Common Sense has an uncommon reach among parents and teachers, with over 100 million users and one million educators across its networks and platforms. We have long been committed to advocating for broadband connectivity for all children and families, in schools and in homes, regardless of their socioeconomic status and geographic location. Broadband, like clean water and electricity, is an essential service. Where water provides nourishment and electricity provides power, broadband provides access to education, health care, employment, and civil society.

As part of Common Sense's mission to improve the lives of all kids, we have focused on the persistent gap between students who have high-speed internet and modern devices at home and those who do not. Recent analysis of the digital divide for America's K-12 public school students and teachers by Common Sense and Boston Consulting Group found that the homework gap is larger than previously estimated. When the pandemic struck, approximately 15 to 16 million K-12 public school students, or 30% of all public K-12 students, lived in households without either an internet connection or device adequate for distance learning at home, a higher number than previously reported.[1]

These findings are particularly relevant as the NTIA embarks on one of the largest broadband expansion projects ever. In initiating this project, Congress found that reliable, affordable, high-speed internet is an essential part of modern life. We submit these comments to help NTIA bring such connectivity to every child, teacher, family, and individual throughout America.

In these comments, we will make the following recommendations:

- **The NTIA should require publicly funded networks to meet minimum performance standards.** These standards should allow subscribers to use essential services, such as education, telehealth, and remote work. The standards should include metrics for speed, symmetry, reliability, latency, and scalability, and they should be periodically updated.
- **The NTIA should require publicly funded networks to provide affordable service.** Affordability can be encouraged through low cost requirements, open access requirements, competition, and municipal and cooperative providers.

[1] Chandra, S., Chang, A., Day, L., Fazlullah, A., Liu, J., McBride, L., Mudalige, T., Weiss, D., Closing the K–12 Digital Divide in the Age of Distance Learning. Page 3. San Francisco, CA: Common Sense Media. Boston, Massachusetts, Boston Consulting Group. (2020)

- **The NTIA should give states flexibility in determining how and where to use BEAD funds.** Each state has unique needs, and so the NTIA should allow states to create cost support programs for devices and broadband service, to factor upcoming broadband projects into their BEAD proposals, to allow BEAD spending on digital inclusion, to use new and existing maps and data, and to leverage anchor institutions.
- **The NTIA should support state planning, capacity building, and stakeholder coordination.** States have varying degrees of preparedness, and so the NTIA should support them with upfront funding, administrative guidance and support, model policies, and stakeholder engagement tools.
- **The NTIA should promote comprehensive state digital equity plans.** These plans should include proposals to connect vulnerable families to affordable and high-quality service, thorough descriptions of the state's planned digital equity activities, a roadmap for stakeholders engagement, and coordination with other broadband plans.

Note: For organizational purposes, this document is broken into sections (denoted by roman numerals) and subsections (denoted by letters). If the entirety of a section addresses a specific question from the Request for Comment, that question's number is noted in [brackets] under the section heading. If an individual subsection addresses additional questions, their numbers are noted at the beginning of the subsection.

II. The NTIA Should Require Publicly Funded Networks to Meet Minimum Performance Standards

[Questions 1, 13, 15]

The NTIA should ensure that broadband networks built with public funds meet performance standards that support current and future needs. In the past, the absence of forward-looking standards allowed public funds to be used on networks that did not always lift subscribers out of the "unserved" category.[2] These short-sighted projects require repeated investments and thus cost more over the long term; provide low-quality service; constrict education, health, innovation, and economic growth; and limit the government's ability to respond to catastrophes, like the coronavirus and natural disasters, which disproportionately impact those with poor connectivity.[3] The NTIA can avoid such missteps by considering all current and future service needs—speed, symmetry, reliability, latency, and scalability—when evaluating projects and determining an area's served/underserved/unserved status. To do this, the NTIA should consider the following suggestions:

a. *[Question 4]* Prioritize projects that meet the requirements of other federal broadband programs. Specifically, prioritize the standards of the Department of the Treasury and the Department of Agriculture, which require projects to provide 100 Mbps+ symmetrical service. Harmonizing the NTIA's requirements with these programs will allow states to better coordinate their grants and

[2] In Ohio, 50% of the populated rural areas remain below the 10/1 Mbps threshold despite the commitments made as part of CAF II, a reality shared by much of rural America.

[3] Sal Khan and Jim Steyer, "Congress must extend this critical measure to keep kids connected to learning," The Hill (Sept 2021), available at https://thehill.com/opinion/education/572157-congress-must-extend-this-critical-measure-to-keep-kids-connected-to?rl=1

simplify their planning, oversight, and administrative processes. Additionally, 100 Mbps+ symmetrical service is an important goal because modern internet activities increasingly rely on upload speeds.[4] Such activities, which range from interactive educational simulations to autonomous tractors, are often more collaborative and productive than traditional, download-heavy activities. The economic and creative benefit of these modern activities come from the seamless, reciprocal flow of large quantities of data, and so the NTIA should do what it can to incentivize high-speed, symmetrical networks. Our research finds that significant financial and educational gains occur when students have access to robust connectivity.[5]

b. In addition to speed and symmetry, the NTIA should also consider performance metrics such as reliability and latency. Leichtman Research Group recently released a study showing that nearly a third of households with speeds of 100 Mbps+ are not satisfied with their internet service despite its relatively high speeds.[6] This finding coincides with the experience of CCG Consulting, a state broadband consultant, which finds that the most common complaints about internet service have to do with reliability and not overall speed.[7] Thus, the NTIA and states should consider all metrics of internet service performance when evaluating an area's service level and a project's merit.

c. The NTIA should ensure that, whatever standards are used, networks are capable of sustaining them as they scale and take on more users. For example, some network designs connect multiple households in series to a single line of fiber, while other networks bring a unique fiber line to each household. Initially, each design may be able to achieve similar performance, but as more households are added and usage increases, the first network will reach capacity and performance will drop, while the second network continues to function normally. Thus, the NTIA should consider a network's scalability when evaluating service, and, furthermore, the NTIA should encourage states and ISPs to verify service speed and quality on an ongoing basis rather than at a single point in time.

d. *[Question 5]* We suggest that the NTIA define and promote minimum network performance standards by convening a commission of stakeholders that represent essential uses of technology, such as education, healthcare, agriculture, government and other industries. The goal of this commission should be to define current and anticipated network performance requirements for their essential uses and to describe the potential benefits and innovations if they are met. The commission's findings will be useful for broadband administrators and local stakeholders who are interested in understanding, advocating for, and making use of robust deployment. Moreover, the

[4] Government Accountability Office, "FCC Should Analyze Small Business Speed Needs" (Jul 2021), available at https://www.gao.gov/products/gao-21-494
[5] Ali, T., Chandra, S., Cherukumilli, S., Fazlullah, A., Hill, H., McAlpine, N., McBride, L., Vaduganathan, N., Weiss, D., Wu, M. "Looking back, looking forward: What it will take to permanently close the K–12 digital divide" Common Sense (2021) page 7, available at https://www.commonsensemedia.org/sites/default/files/uploads/pdfs/final_-_what_it_will_take_to_permanently_close_the_k-12_digital_divide_vfeb3.pdf
[6] Leichtman Research Group, Press Release (Dec 2021), available at https://www.leichtmanresearch.com/87-of-u-s-households-get-an-internet-service-at-home/
[7] Doug Dawson, "The Fixation with Broadband Speeds", CCG Consulting, available at https://potsandpansbyccg.com/2022/01/11/the-fixation-with-broadband-speeds/

commission could meet on a recurring basis to update their findings as technological needs evolve.

III. The NTIA Should Require Publicly Funded Networks to Provide Affordable Service

[Questions 1, 14]

The lack of affordable service is arguably the leading cause of the digital divide.[8] The NTIA can address this in multiple ways: ensuring universal access to low cost service, encouraging open access infrastructure, incentivizing competition, and by fostering new market entrants and municipal networks. These approaches can create a more sustainable marketplace and lower the cost of service. The NTIA should consider the following suggestions to ensure a comprehensive approach to affordability:

a. *[Questions 4, 22, 23]* Like the Department of the Treasury, the NTIA should require publicly funded networks to offer low-cost service plans. These plans should provide meaningful levels of service, i.e. service that robustly supports essential uses like distance learning, telehealth, and remote work. These plans should also share the Affordable Connectivity Program's eligibility criteria and be fully covered by its benefit ($30 generally, $75 in tribal and high-cost areas). Such requirements will incentivize eligible populations to sign up for the ACP, create opportunities for no-cost service, and help ensure that, no matter a person's income, meaningful connectivity is available. Additionally, low-cost requirements will support new network entrants to sustainably serve historically underserved low-income subscribers. By offering service that is fully covered by the ACP, new networks will have support to better serve low-income subscribers.

b. The NTIA should encourage open access requirements as a means of addressing one of the long-term causes of unaffordability—lack of competition. Without sufficient competition, consumers have little choice but to accept high prices which renders service unaffordable for millions of households. According to the FCC, more than 1 in 3 Americans—nearly 120 million people—can only access 100/10 Mbps service through a single provider,[9] and the cost of service in these areas can be up to $60/month higher than equivalent service in more competitive areas.[10] Open access requirements allow competitors to share infrastructure, thereby reducing the largest barrier to market entry and incentivizing competition. Utah's Utopia Fiber—which offers high-quality service from 16 providers for an average of $35—is a good example of the benefits of an open access network.[11]

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[8] EducationSuperHighway, No Home Left Offline Report (Nov 2021), available at https://www.educationsuperhighway.org/wp-content/uploads/No-Home-Left-Offline-Report_EducationSuperHighway2021.pdf

[9] Federal Communications Commission, 2020 Communications Marketplace Report at 87, GN Docket No. 20-60 (Dec 2020), available at https://docs.fcc.gov/public/attachments/FCC-20-188A1.pdf.

[10] Karl Bode, "Harvard Study Shows Why Big Telecom Is Terrified of Community-Run Broadband," Vice, (Jan 2018), available at https://www.vice.com/en/article/d345pv/harvard-study-shows-why-big-telecom-is-terrified-of-community-run-broadband

[11] Utopia Fiber Website, residential pricing guide, accessed Feb 4, 2022, available at https://www.utopiafiber.com/residential-pricing/

c. *[Question 4, 7]* Like the Department of the Treasury, the NTIA should encourage participation by municipal, non-profit, and cooperative networks. These networks are less constrained by the profit incentives of private companies, and, as such, they are better able to provide the type of expansive, affordable, and high-quality service that may only be profitable over the long term. The City of Chattanooga, TN is a good example of a municipal network.[12] Chattanooga leveraged existing fiber in its utility system to develop a broadband network that now offers low-cost, high-speed, reliable service citywide. Through a partnership between the municipal provider and local schools, Chattanooga's was able to provide every Hamilton County student with 100 Mbps service free of charge.[13] States should be encouraged to consider this and similar models when deploying BEAD projects. Moreover, the NTIA should assist such providers by offering technical guidance and resources, connections to state administrators, and support in obtaining financial and philanthropic backing.

d. The NTIA should devise a way to incorporate affordability into the definition of unserved and underserved. Definitions that do not incorporate affordability run the risk of defining "universal service" as a situation in which potentially millions of households are unable to access service. Including affordability in these definitions will help bring new infrastructure, and thus competition, to areas that have been historically neglected or redlined.

IV. The NTIA Should Give States Flexibility When Determining How and Where to Use BEAD Funds

[Questions 8]

a. *[Question 1, 18]* The NTIA should clarify and provide examples of how BEAD funding can be used to provide no- and low-cost device and service programs. Such uses will become increasingly important as programs, like the Emergency Connectivity Fund, wind down and potentially lead to the disconnection of millions of students and library patrons. The NTIA should encourage states to deploy such programs through anchor institutions, like schools and libraries, which are capable of obtaining cost savings through bulk rates, ensuring that technical specifications allow for essential uses, offering tech support and digital inclusion training, providing oversight, and connecting users to existing benefits.

b. *[Question 16]* The NTIA should consider a state's current and planned projects when determining which areas are eligible for prioritization. BEAD first prioritizes areas in which 80% of residents lack 25/3 Mbps followed by areas in which 80% of residents lack 100/20 Mbps. The NTIA should provide examples of this tiering system, specify how a state can progress from the first tier to the second, and assert the potential benefits of building in areas with existing service to help

[12] Results 4 America, "HCS EdConnect: Connecting families to no-cost, high-speed internet in Chattanooga", (Jan 2022), available at https://catalog.results4america.org/program/broadband-access-initiatives/hcs-edconnect-chattanooga-tn

[13] Chandra, S. et al., "Connect all students: How states and school districts can close the digital divide." Common Sense (2020), page 12, available at https://d2e111jq13me73.cloudfront.net/sites/default/files/uploads/common_sense_media_partner_report_final.pdf

counter misconceptions about "overbuilding." The NTIA should also grant states flexibility in how they demonstrate available speeds and the percentage of households served. Some states, notably California, have made great strides in connecting or preparing to connect a majority of their unserved areas. The NTIA should create a process to help these states demonstrate their current and expected coverage.

c. The NTIA should consider state and local broadband maps when determining an area's service level. The upcoming FCC maps are not expected until 2023, and, as in the past, they may ultimately overstate broadband availability. Thus, states should be encouraged to create their own maps to supplement FCC data. Additionally, states should be encouraged to consider existing data that has been created by participants in the Emergency Connectivity Fund. This data is a ready source of information about student, teacher, and patron connectivity, and it could easily help states and communities identify unserved and underserved areas or challenge overstated service claims.

d. *[Question 11]* Anchor institutions should be prioritized in BEAD if serving them will promote access for unserved and underserved communities. Anchor institutions are connected to disadvantaged populations which are often disproportionately unserved. Thus, when prioritizing projects, the NTIA should consider that connectivity for anchor institutions not only benefits the institution itself, but also the community the institution serves. Furthermore, the NTIA should consider expanding the definition of anchor institutions to include parks, community centers, recreational centers, halfway houses and residential programs, shelters, places of worship, and market areas. Such use of anchor institutions would allow BEAD to provide connectivity to areas that have been historically neglected by federal spending.

V. The NTIA Should Support State Planning, Capacity Building, and Stakeholder Coordination

[Questions 2, 4]

The amount of funding and authority given to states by recent federal legislation is unprecedented. The very uniqueness of the situation means that many states and communities lack the experience and resources needed to maximize the opportunity. Thus, it is critical that the NTIA equip state administrators and local stakeholders with the tools and expertise they need to succeed. To do this, the NTIA should consider the following suggestions:

a. *[Questions 8, 10, 18]* The NTIA should quickly distribute the $100 million in BEAD funds that each state is guaranteed by law. This initial $100 million does not rely on the allocation formula, and, as such, can be distributed before the maps are completed. Furthermore, the NTIA could clarify that this money can be used for activities such as: mapping; digital needs assessments; community outreach; building workforce capacity, such as training fiber technicians; and acquiring materials and construction equipment. These activities may require scarce resources, take time to create, or be critical during initial planning stages, and so states should be given the opportunity to develop them early.

b. *[Question 1, 5, 31]* The NTIA should encourage state governments to develop their administrative capacity by creating state broadband and digital equity offices. States should supply these offices with all the resources and staffing they require to manage activities such as: planning and policy development, digital equity, grant implementation and oversight, community engagement, technical support, mapping, contracting, marketing and promotion, and cross-government coordination. Each of these activities requires a different set of skills and resources and may benefit from a dedicated staff and budget. The responsibility on state administrators is enormous and their decisions will guide infrastructure that should last for decades, and so investments made in their capacity will pay dividends over the long term.

c. *[Question 5, 8]* The NTIA should identify, collect, and distribute model policies about proven state broadband programs. Many states, such as California, Illinois, and Washington, have well-established, successful programs. NTIA should consult these and collaborate with external groups that are also developing and collecting these resources for states as they distribute model policies to the states.[14]

d. *[Question 19, 30]* The NTIA should consider creating an online database of community stakeholders that states should include in their BEAD and Digital Equity Act planning process. Stakeholders would voluntarily submit their information to the database, and state administrators would be encouraged to connect with them when forming task forces and organizing events and planning sessions. The NTIA and states should publicize the database so that stakeholders are aware of its existence and purpose.

VI. The NTIA Should Promote Comprehensive State Digital Equity Plans

[Questions 25]

The Digital Equity Act creates the first opportunity that many states and communities have to pursue digital equity programs. As such, it is critical that the NTIA and states work with national experts on digital inclusion and with local digital equity organizations to create resources, offer guidance, and evaluate plans.[15]

a. *[Question 1, 14]* An important goal of digital equity plans should be to expand access to reliable, affordable internet service that is capable of supporting distance learning and homework. Common Sense regularly hears from parents and teachers who struggle with low-cost plans that are not fast or reliable enough to perform basic tasks, like video streaming and research. State plans should also ensure that families are not barred from using state or federal cost support programs or accessing low-cost offerings because of unpaid bills tied to the family's address. These situations can be especially problematic if the provider is the only option available in the family's area, leaving the family with no path to connectivity.

[14]Similar initiatives are being led by the Pew Charitable Trust, the National Digital Inclusion Alliance, EducationSuperHighway, and Common Sense.

[15] Common Sense has developed Digital Citizenship curriculum used by over 80% of public schools, our team of education experts and product engineers create digital inclusion tools and resources, and our network of education ambassadors work with schools in every state.

b. *[Question 30]* The NTIA should ensure that states provide public facing material in multiple languages and accessible formats. This is true for all programs but especially relevant for states to consider when creating digital equity plans. States should consult local institutions to understand the specific needs of targeted communities and the most effective ways to reach them.

c. *[Question 30]* State plans should identify institutional partners, such as schools, libraries, and other anchor institutions, that can house digital navigators and support their integration within communities. These partners should be included in the planning process to ensure that their unique experience and community knowledge is included in the state's plans.

d. The NTIA should require state digital equity plans to include the following:
    - A definition of digital equity;
    - A description of why digital equity is important to the state;
    - An identification of barriers to digital equity and the populations these barriers affect;
    - An identification of stakeholders and existing resources that can support digital equity;
    - A plan to incorporate stakeholders and vulnerable populations into the planning process;
    - Specific goals for achieving digital equity and metrics to track them; including metrics related to broadband service speeds that are tied to meaningful use, and affordability.
    - A baseline measurement of the current state of digital equity goals;
    - A plan to conduct routine digital needs assessments to measure progress toward goals;
    - Consideration of how schools and anchor institutions can be used to assess vulnerable populations and deploy various supports (cost support for devices, service and digital inclusion programing);
    - Strategies to support digital equity after the conclusion of the federal program;
    - A timeline for implementation of the plan;
    - A description of how upcoming state grant funds will be used.
    - An outline of important digital skills, such as: downloading applications; using email and social media; connecting with schools, government services, and benefits; recognizing scams; safeguarding information and privacy; and learning about various types of exploitative and harmful online content.

e. The NTIA should encourage states to form digital equity planning teams that include representatives from the state broadband agency, educational institutions, CBOs that work with disconnected and vulnerable populations, and members of disconnected communities. To make sustained participation possible, members from the latter two groups should be financially compensated for their service on these teams, as should any CBOs that are used to conduct outreach or provide expertise.

f. *[Question 27]* The NTIA should encourage states to harmonize their 5-year BEAD plan and their digital equity plan. To do this, states should set up ongoing collaboration between the entities responsible for each plan. Crossover between targeted areas and/or populations should be identified and strategies developed to ensure each program's data, outreach, and outcomes align with the objectives of the other.