

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Inquiry Concerning Deployment of Advanced) GN Docket No. 22-270
Telecommunications Capability to All Americans)
in a Reasonable and Timely Fashion)
)

**COMMENTS OF
THE FREE STATE FOUNDATION**

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I. Introduction and Summary

These comments are filed in response to the *Seventeenth Section 706 Report Notice of Inquiry (Section 706 NOI)* adopted by the Federal Communications Commission (Commission or FCC) on October 25, 2023.¹ Section 706 of the Communications Act directs the FCC to assess annually "the *availability* of advanced telecommunications capability to all Americans" and "determine whether advanced telecommunications capability *is being deployed* to all Americans in a reasonable and timely fashion" (emphasis added).² In the event that it factually concludes that these goals are not being met, the agency is to "take immediate action" specifically to encourage additional private investment and promote competition.³

* These comments express the views of Randolph J. May, President of the Free State Foundation and Andrew Long, Senior Fellow. The views expressed do not necessarily represent the views of others associated with the Free State Foundation. The Free State Foundation is an independent, nonpartisan free market-oriented think tank.

¹ *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 22-270, Notice of Inquiry (October 25, 2023), available at <https://docs.fcc.gov/public/attachments/FCC-23-89A1.pdf> (Section 706 NOI).

² 47 U.S.C. § 1302(b).

³ *Id.*

The plain text of Section 706 posits two straightforward empirical queries. One, to what extent is "advanced telecommunications capability" – that is, broadband Internet access at sufficient speeds to satisfy actual consumer needs – currently available to all Americans? And two, with respect to those locations where "broadband" is not yet available, is it being deployed in a reasonable and timely fashion? Thanks to the Broadband DATA Act and the Commission's implementing efforts, for the first time interested parties participating in a Section 706 inquiry have at their disposal an official, communal data source upon which responses can be based: the National Broadband Map.

Consequently, these questions never have been so easy to answer – nor have the responses ever been so incontrovertibly clear. Data recently made available by Chairwoman Jessica Rosenworcel (though curiously not included in the *Section 706 NOI* itself) reveals that, as of May 2023, only 7.2 million out of a total of 115 million serviceable locations – just over 6 percent – were unserved.⁴ Incredibly, and at the same time the accuracy of the data was improving, the number of unserved locations shrank by *more than 13 percent*, or 1.1 million, in only six months.⁵ Thus, with reference to the specific metric called for by Congress and developed by the FCC itself, broadband undeniably is both available and being deployed in a reasonable and timely fashion.

Further, the Biden Administration's "Internet For All" initiative, which encompasses a dizzying number of federal subsidy programs administered by a worrisome number of different agencies, is in the process of injecting tens of billions into

⁴ Jessica Rosenworcel, "National Broadband Map: It Keeps Getting Better," *Notes from the FCC* (May 30, 2023), available at <https://www.fcc.gov/national-broadband-map-it-keeps-getting-better>.

⁵ Jessica Rosenworcel, "National Broadband Map 3.0: Thankful for Continued Improvements," *Notes from the FCC* (November 17, 2023), available at <https://www.fcc.gov/news-events/notes/2023/11/17/national-broadband-map-30-thankful-continued-improvements>.

the network infrastructure construction pipeline. As touted in a June 2023 White House press release regarding the \$42.45 billion Broadband Equity, Affordability, and Deployment (BEAD) Program, "President Biden and Vice President Harris *are delivering* on their historic commitment to connect everyone in America to reliable, affordable high-speed Internet by the end of the decade" (emphasis added).⁶

Thus, there should be no doubt: \$2 trillion and counting in private investment since 1996 has brought broadband to the vast majority of Americans, and existing federal subsidy programs are doling out tens of billions so that even the most cost-prohibitive locations are being connected. There is an inevitable lag between the commitment of funds and when networks become operational – one that the Commission could do more to shorten, especially with respect to pole attachment disputes, permitting, access to rights of way, and other bureaucratic red tape – but with an absolute minimum of \$140 billion in taxpayer dollars committed to closing those digital divides that remain, not to mention matching funds as well as state and local money, there is every reason to conclude that nothing is standing in the way of universal broadband availability.

Regrettably, the *Section 706 NOI* neither tracks the plain language of the statute nor follows the evidence to its logical and inevitable conclusion. Instead, and of a piece with the Rosenworcel Commission's "power grab" in the digital discrimination proceeding⁷ and wholly unwarranted efforts to reclassify broadband as a Title II

⁶ White House Press Release, "Fact Sheet: Biden-Harris Administration Announces Over \$40 Billion to Connect Everyone in America to Affordable, Reliable, High-Speed Internet" (June 26, 2023), available at <https://www.whitehouse.gov/briefing-room/statements-releases/2023/06/26/fact-sheet-biden-harris-administration-announces-over-40-billion-to-connect-everyone-in-america-to-affordable-reliable-high-speed-internet/>.

⁷ See, e.g., Randolph J. May, "The FCC's Digital Discrimination Order: Overreach in Pursuit of a Worthy Goal," *Perspectives from FSF Scholars*, Vol. 18, No. 51 (November 28, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/11/The-FCCs-Digital-Discrimination-Order-An-Overreach-in-Pursuit-of-a-Worthy-Goal-112723.pdf>, Seth L. Cooper, "Press Release: The FCC's Digital

"telecommunications service" subject to investment-discouraging public utility regulation,⁸ it moves the goalposts to an unattainable distance. And, in doing so, the *Section 706 NOI* says the quiet part out loud: "Are any issues with the available data significant enough, either individually or cumulatively, to prevent us from making a definitive finding under section 706, *regardless of what the data may show?*" (emphasis added).⁹ That bears repeating: *regardless of what the data may show.*

First, the *Section 706 NOI* at best glosses over, and at worst ignores altogether, both (1) the FCC's own data regarding the extent of broadband availability and the rapid pace at which digital divides are disappearing, and (2) the unprecedented, once-in-a-lifetime federal financial commitment to broadband network infrastructure construction. That data, in the form of the National Broadband Map, shows that only 6.3 percent of locations are still unserved, down from 7.3 percent six months prior – and that between May and November of this year, the total number of unserved locations plummeted by over 13 percent, from 8.3 to 7.2 million. Numerous marketplace developments in the three years since the Commission last reached a positive Section 706 finding serve to underscore the findings arising from the FCC's Broadband Data Collection.

Discrimination Order Includes "The Long Tail of Intangible Variables," *FSF Blog* (November 15, 2023), available at <https://freestatefoundation.blogspot.com/2023/11/press-release-fccs-digital.html> (characterizing the Digital Discrimination order as "perhaps the most far-reaching unauthorized power grab in the history of the agency").

⁸ See, e.g., Daniel A. Lyons, "Refreshing the Record on Net Neutrality," *Perspectives from FSF Scholars*, Vol. 18, No. 50 (November 14, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/11/Refreshing-the-Record-on-Net-Neutrality-111423.pdf>, Seth L. Cooper, "Net Neutrality Regulation Is Not a Public Safety Measure," *Perspectives from FSF Scholars*, Vol. 18, No. 46 (October 17, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/10/Net-Neutrality-Regulation-Is-Not-a-Public-Safety-Measure-101823.pdf>, Randolph J. May, "Net Neutrality Redux: A Fight Over First Principles," *Perspectives from FSF Scholars*, Vol. 18, No. 45 (October 16, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/10/Net-Neutrality-Redux-A-Fight-Over-First-Principles-101623.pdf>.

⁹ *Section 706 NOI* at ¶ 66.

Moreover, the *Section 706 NOI* makes little mention of the Biden Administration's "Internet For All" initiative,¹⁰ which potentially involves hundreds of billions in subsidies and, according to the Government Accountability Office, spans over 130 funding programs administered by 15 different federal agencies.¹¹ For a variety of reasons both practical and bureaucratic, broadband network infrastructure takes substantial time to construct. As such, the current iteration of the National Broadband Map understandably does not reflect the full impact of federal subsidies, both awarded and still in process.¹² (Neither does the *Section 706 NOI*, for reasons perhaps not quite so justified.) The fact remains, however, that \$140 billion and counting in taxpayer dollars, not to mention matching funds and state and local grants, already have been allocated to broadband infrastructure construction that the White House promises will "connect everyone in America to reliable, affordable high-speed internet by the end of the decade."¹³ With just 7.2 million locations currently still unserved, that averages out to a minimum of \$19,444 per location in federal subsidies alone – more than enough to

¹⁰ See, e.g., *Section 706 NOI* at ¶ 46 ("Should we use data from NTIA, the U.S. Department of Agriculture (USDA), the Treasury Department, or other federal, state, or local sources in conjunction with BDC data to assess the state of fixed deployment?") (footnote omitted).

¹¹ See, e.g., Andrew Long, "GAO, FCC's Carr Echo Broadband Funding Coordination Concerns," *FSF Blog* (June 14, 2022), available at <https://freestatefoundation.blogspot.com/2022/06/gao-fccs-carr-echo-broadband-funding.html>.

¹² As required by the *IIJA*, the FCC created another map, the Broadband Funding Map, the goal of which is to assist interagency coordination efforts by identifying those areas where federal subsidies have been committed to the eventual construction of network infrastructure. See generally Andrew Long, "Wasteful Duplication by Design: A Case Study on Overlapping Federal Broadband Subsidies," *Perspectives from FSF Scholars*, Vol. 18, No. 19 (May 8, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/05/Wasteful-Duplication-by-Design-A-Case-Study-on-Overlapping-Federal-Broadband-Subsidies-050823.pdf>. To date, the Broadband Funding Map has received little attention – including from the *Section 706 NOI*, which mentions it only once, in a footnote.

¹³ White House Press Release, "Fact Sheet: Biden-Harris Administration Announces Over \$40 Billion to Connect Everyone in America to Affordable, Reliable, High-Speed Internet" (June 26, 2023), available at <https://www.whitehouse.gov/briefing-room/statements-releases/2023/06/26/fact-sheet-biden-harris-administration-announces-over-40-billion-to-connect-everyone-in-america-to-affordable-reliable-high-speed-internet/>.

achieve the goal of universal availability. Make no mistake, deployment is not merely occurring in a "reasonable and timely fashion," it is on pace to finish the job.

Second, the *Section 706 NOI* proposes to increase the minimum speeds for "advanced telecommunications capability" from 25 megabits per second (Mbps) downstream and 3 Mbps upstream (25/3 Mbps) to 100/20 Mbps – but without first performing its statutory duty to determine, in an empirically rigorous manner befitting the agency with subject-matter authority and taxpayer-funded technical capability, exactly what speeds consumers today require to "originate and receive high-quality voice, data, graphics, and video telecommunications."¹⁴ In doing so, it inappropriately conflates congressional build-out requirements for new, federally subsidized network construction with current consumer needs.

The *Section 706 NOI* also proposes a "long-term speed goal" of 1 gigabit per second (Gbps) downstream and 500 Mbps upstream, targets wholly unrelated to today's actual consumer usage and demand, or over any reasonable timeline, especially in the upstream direction.

Indeed, both the 100/20 Mbps proposal and 1 Gbps/500 Mbps preview seem designed to (1) disregard alternative broadband distribution platforms – in particular, satellite and fixed wireless services that fully satisfy consumer demand for high-speed data and "high-quality" high-definition (HD) video – bowing to the Biden Administration's overt "fiber-first" bias, (2) justify the agency's longstanding and increasingly untenable position that fixed and mobile services, and now satellite services, are not marketplace substitutes responsive to consumer demand, and (3) overstate the

¹⁴ 47 U.S.C. § 1302(d)(1) (defining "advanced telecommunications capability").

number of unserved locations in order to maximize the regulatory authority derived therefrom.

Third, the *Section 706 NOI* seizes upon a single sentence in the 1,000+ page Infrastructure Investment and Jobs Act (IIJA),¹⁵ one that incorporates Section 706 by reference solely for definitional purposes, no less, to suggest that, over a quarter century after its passage, Section 706 suddenly embodies a familiar litany of Biden Administration self-defined and manipulable policy preferences – affordability, adoption, and equitable access – beyond availability and pace of deployment.

Incredibly, the *Section 706 NOI* concludes by asking whether "anything less than universal *access* in these areas [can] be sufficient to reach a positive finding under section 706?" (emphasis added).¹⁶ It then goes further, questioning whether the data that the *Section 706 NOI* seeks pursuant to the statute, *and seemingly even the National Broadband Map itself*, might be so inherently unreliable as to render a positive finding factually unattainable: "Are any issues with the available data significant enough, either individually or cumulatively, to prevent us from making a definitive finding under section 706, *regardless of what the data may show?*" (emphasis added).¹⁷

Had the *Section 706 NOI* focused on the plain statutory language, the 2023 inquiry would have been straightforward. The Commission's own data shows that broadband *is* widely available and *is* being deployed in a reasonable and timely fashion – and the federal government *has* committed sufficient resources to connect every

¹⁵ Infrastructure Investment and Jobs Act, Pub. L. No. 117-58 (November 15, 2021), available at <https://www.congress.gov/117/plaws/publ58/PLAW-117publ58.pdf> (IIJA) (Section 60401 of the IIJA states that "the term 'universal service goals for broadband' means the statutorily mandated goals of universal service for advanced telecommunications capability under section 706 of the Telecommunications Act of 1996 (47 U.S.C. 1302).").

¹⁶ *Section 706 NOI* at ¶ 65.

¹⁷ *Id.* at ¶ 66.

remaining unserved location. Instead, the *Section 706 NOI* rewrites the statute to require not just immediate, ubiquitous availability, but also universal access, affordability, and equity. In doing so, it intentionally redefines the goal of Section 706 so that a positive finding is impossibly out of reach.

And while it may be time to update the speeds that define "advanced telecommunications capability," a responsible approach to that task should involve a fact-intensive analysis of actual consumer demand and usage. It certainly should not involve line-shifting or anecdotal references to extreme use cases, such as hard-core gamers' occasional large-file downloads or video formats that exceed the current "high-quality" benchmark (that is, HD) and typically involve an additional fee, designed to advance a biased "fiber-first" agenda.

II. FCC Data and Federal Dollars Compel a Positive Section 706 Finding

The core questions that a Section 706 inquiry must answer are (1) to what extent broadband is available, and (2) whether it "*is being deployed* to all Americans in a reasonable and timely fashion" (emphasis added).¹⁸ Through passage of the Broadband Deployment Accuracy and Technological Availability (DATA) Act in March 2020,¹⁹ Congress directed the FCC to create a single, definitive data set regarding service deployment able to serve as the factual basis for such a determination. And as Chairwoman Rosenworcel recently conceded, that definitive evidentiary source – the National Broadband Map – unequivocally demonstrates that the answer to that question is "yes."

¹⁸ 47 U.S.C. § 1302(b).

¹⁹ See generally Broadband Deployment Accuracy and Technological Availability (DATA) Act, Public Law 116-130 (March 23, 2020), available at <https://www.congress.gov/116/plaws/publ130/PLAW-116publ130.pdf>.

The Broadband DATA Act directed the Commission (1) to develop more accurate, location-specific service-availability maps, and (2) to "use such maps to determine the areas in which terrestrial fixed, fixed wireless, mobile, and satellite broadband internet access service *is and is not available*" (emphasis added).²⁰ Thus, to evaluate "the availability of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms)," the FCC need simply consult its homegrown map.

To date, the agency has released three iterations of the National Broadband Map.²¹ The first, a "*pre-production draft*" (emphasis in original), was made available to the public just over a year ago, on November 18, 2022.²² Six months later, a revised version of the map, reflecting the results of a lengthy challenge process, was released. It showed that, out of more than 114 million individual serviceable locations nationwide, 8.3 million – roughly 7.3 percent – were unserved.²³ Then, on November 17, 2023, Chairwoman Rosenworcel revealed that, in just six months, the number of unserved locations had plummeted by an astonishing 13 percent, from 8.3 million to 7.2 million.²⁴ The Chairwoman's *Notes from the FCC* post also acknowledged that "[t]he number of unserved homes and businesses is going down" and that "[p]roviders are connecting more

²⁰ 47 U.S.C. § 642(c)(2)(A). In addition, the Broadband DATA Act requires the agency to "use such maps ... when making any new award of funding with respect to the deployment of broadband internet access service intended for use by residential and mobile customers." *Id.* at § 642(c)(2)(B). Similarly, the IIJA directed NTIA to rely on those maps for purposes of the \$42.45 billion BEAD Program. *See, e.g., IIJA* at § 60401(a)(17) (defining "unserved" "in accordance with the FCC fixed broadband map").

²¹ *See* National Broadband Map, available at <https://broadbandmap.fcc.gov/home>.

²² *See* Jessica Rosenworcel, "The New Broadband Maps Are Finally Here," *Notes from the FCC* (November 18, 2022), available at <https://www.fcc.gov/news-events/notes/2022/11/18/new-broadband-maps-are-finally-here>.

²³ *See* Jessica Rosenworcel, "National Broadband Map: It Keeps Getting Better," *Notes from the FCC* (May 30, 2023), available at <https://www.fcc.gov/national-broadband-map-it-keeps-getting-better>.

²⁴ *See* Jessica Rosenworcel, "National Broadband Map 3.0: Thankful for Continued Improvements," *Notes from the FCC* (November 17, 2023), available at <https://www.fcc.gov/news-events/notes/2023/11/17/national-broadband-map-30-thankful-continued-improvements>.

locations to high-speed internet services thanks to the Commission's Rural Digital Opportunity Fund and Connect America Fund, in addition to other federal, state and privately funded programs and projects. And that's before the deployments funded by the Bipartisan Infrastructure Law kick-in."²⁵

To recap: Congress directed the FCC to create a more accurate, location-specific data source depicting where broadband service is (and is not) available; the Commission has done so; and the resulting National Broadband Map unequivocally shows not only that the number of unserved locations is relatively low, but also that that number is shrinking at a dramatic rate, even before hundreds of billions in pending federal subsidies further expand existing network infrastructure. It is difficult to imagine a more straightforward, or less ambiguous, analysis and conclusion: broadband "*is* being deployed to all Americans in a reasonable and timely fashion" (emphasis added). Perhaps that explains why the *Section 706 NOI* curiously fails to mention either the impressively small number of unserved locations depicted on the National Broadband Map or the full scope of federal subsidies in the pipeline.²⁶

III. Additional Data Confirms Private Investment's Continuing Critical Role in the Deployment of Broadband Network Infrastructure

While, as we discussed above, the FCC's National Broadband Map on its own demonstrates definitively that a positive Section 706 finding is required,²⁷ it nevertheless

²⁵ *Id.* (emphasis omitted).

²⁶ The *Section 706 NOI* makes only a passing reference to subsidy programs other than the \$42.45 billion BEAD Program established by the *IIJA*. See *Section 706 NOI* at ¶ 46 (asking whether the Commission "[s]hould . . . use data from NTIA, the U.S. Department of Agriculture (USDA), the Treasury Department, or other federal, state, or local sources in conjunction with BDC data to assess the state of fixed deployment").

²⁷ Compare Jessica Rosenworcel, "National Broadband Map: It Keeps Getting Better," *Notes from the FCC* (May 30, 2023), available at <https://www.fcc.gov/national-broadband-map-it-keeps-getting-better> ("If we want everyone, everywhere to have access to high-speed internet service, we will need to deploy broadband service to 8.3 million new locations."), and Jessica Rosenworcel, "National Broadband Map 3.0: Thankful

may be helpful to consider additional evidence, as well. Since 2019, the focus of the last Section 706 Report, private investment exceeding a quarter of a trillion dollars has expanded significantly the availability of broadband to additional locations previously unserved via distribution platforms both wired (cable, fiber) and wireless (mobile 4G LTE and 5G, fixed wireless access, satellite). In particular, next-generation fixed wireless access (FWA) and satellite offerings at long last are able to truly compete with traditional providers with more than adequate speeds and latency to satisfy consumer demand.

According to USTelecom, the three years subsequent to the Commission's last affirmative Section 706 determination have seen broadband provider investments in communications infrastructure steadily increase: \$79.4 billion in 2020,²⁸ \$86 billion in 2021,²⁹ and \$102.4 billion in 2022.³⁰ That totals over a quarter of a trillion dollars: \$267.8 billion. Since 1996, broadband providers have committed a whopping \$2 trillion in capital.³¹ And according to CTIA, wireless-network investments in 2022 reached a "historic" \$39 billion, an increase of 12 percent from 2021.³²

(Keep in mind that Section 706 directs the FCC, upon a defensible finding that broadband is *not* " being deployed to all Americans in a reasonable and timely fashion," to "take immediate action to accelerate deployment of such capability *by removing*

for Continued Improvements," *Notes from the FCC* (November 17, 2023), available at <https://www.fcc.gov/news-events/notes/2023/11/17/national-broadband-map-30-thankful-continued-improvements> ("The new Map shows that just over 7.2 million locations lack access to high-speed internet service. That's down from 8.3 million when the second map was released in May. The digital divide is still significant, but it's narrowing.").

²⁸ See USTelecom 2020 Broadband Capex Report (September 22, 2021), available at <https://www.ustelecom.org/wp-content/uploads/2021/09/USTelecom-2020-Broadband-Capex-Report.pdf>.

²⁹ See USTelecom 2021 Broadband Capex Report ((July 18, 2022), available at <https://itgportal.ustelecom.org/wp-content/uploads/2022/07/2021-Broadband-Capex-Report.pdf>.

³⁰ See USTelecom 2022 Broadband Capex Report (September 8, 2023), available at <https://ustelecom.org/wp-content/uploads/2023/09/2022-Broadband-Capex-Report-final.pdf>.

³¹ *Id.*

³² See CTIA, "2023 Annual Survey Highlights" (July 25, 2023), available at <https://www.ctia.org/news/2023-annual-survey-highlights>.

barriers to infrastructure investment and by promoting competition in the telecommunications market" (emphasis added).³³ By all reasonable accounts, the regulatory status quo, in which broadband is classified as an "information service," is the optimal approach to maximize investment.)

The impact of that private investment has been nothing less than profound, as the following examples illustrate:

- Average speeds are up substantially: according to *HighSpeedInternet.com*, national average download speeds in 2023 jumped from 119.03 Mbps to 171.30 Mbps, a 44 percent increase.³⁴
- USTelecom reports that the average upload speed for the most popular tiers grew by 141.5 percent between 2015 and 2023 and the average upload speed increased by 284.6 percent.³⁵
- Over the same timeline, USTelecom reports that the nominal price for the most popular tiers fell by 37 percent – 54.7 percent when adjusted for inflation.³⁶
- According to the Leichtman Research Group, the number of broadband subscribers increased by over 2.95 million in 2021³⁷ and 3.5 million in 2022.³⁸
- As of June 2023, more than half of U.S. households (55.6 percent) had access to fiber-based broadband, according to *BroadbandNow*. That compares to just 45.9 percent in December 2021 and represents an increase of 5.6 million households.³⁹

³³ 47 U.S.C. § 1302(b).

³⁴ See Carl Weinschenk, "Report: National Average Internet Speed up 44%," *Telecompetitor* (November 18, 2023), available at <https://www.telecompetitor.com/report-national-average-internet-speed-up-44/>. See also Peter Holslin, "The 10 Fastest and Slowest States for Internet Speeds in 2023," *HighSpeedInternet.com* (November 3, 2023), available at <https://www.highspeedinternet.com/resources/fastest-slowest-internet>.

³⁵ See USTelecom 2023 Broadband Pricing Index (October 11, 2023), at 3, available at <https://ustelecom.org/research/2023-bpi/>.

³⁶ *Id.*

³⁷ See Leichtman Research Group Press Release, "About 2,950,000 Added Broadband From Top Providers in 2021" (March 7, 2022), available at <https://leichtmanresearch.com/about-2950000-added-broadband-from-top-providers-in-2021/>.

³⁸ See Leichtman Research Group Press Release, "About 3,500,000 Added Broadband From Top Providers in 2022" (March 2, 2023), available at <https://leichtmanresearch.com/about-3500000-added-broadband-from-top-providers-in-2022/>.

³⁹ See Tyler Cooper, "Over Half of America Now Has Access To Fiber," *BroadbandNow* (November 14, 2023), available at <https://broadbandnow.com/research/fiber-penetration-trends>.

- Wireless data traffic rose by 38 percent to 73.7 trillion MB and the number of active 5G devices doubled to nearly 162 million.⁴⁰
- Perhaps most notably, FWA service from mobile carriers, especially those utilizing 5G technology, in just the last few years has emerged as a potent competitive option for home Internet use, representing 90 percent of new subscriptions.⁴¹ According to the Leichtman Research Group, T-Mobile and Verizon combined added nearly 3.2 million FWA subscribers in 2022 alone.⁴²
- According to Ookla, the median speeds of 5G FWA offerings from T-Mobile, Verizon, and AT&T all exceed 100 Mbps downstream.⁴³
- SpaceX's Starlink, a relatively new provider utilizing low-Earth orbit (LEO) satellites to deliver download speeds that easily can exceed 100 Mbps with less latency than satellites positioned at higher altitudes,⁴⁴ had 1.5 million users as of May 2023 and reportedly had "well over" that many just four months later.⁴⁵
- Amazon's Project Kuiper, a rival LEO satellite operator, recently launched its first test satellites⁴⁶ and is expected to begin offering service in 2025.⁴⁷

IV. Section 706 Speed Benchmarks Should Reflect Actual Usage, Not Advance the Biden Administration's "Fiber-First" Bias

The *Section 706 NOI* proposes to increase current minimum speeds for fixed "advanced telecommunications capability" from 25 megabits per second (Mbps)

⁴⁰ See CTIA, "2023 Annual Survey Highlights" (July 25, 2023), available at <https://www.ctia.org/news/2023-annual-survey-highlights>.

⁴¹ *Id.*

⁴² See Leichtman Research Group Press Release, "About 3,500,000 Added Broadband From Top Providers in 2022" (March 2, 2023), available at <https://leichtmanresearch.com/about-3500000-added-broadband-from-top-providers-in-2022/>. See also Seth L. Cooper, "Cable MVNOs and FWA Continue to Gain Subscribers in 2023," *FSF Blog* (August 1, 2023), available at <https://freestatefoundation.blogspot.com/2023/08/cable-mvnos-and-fwa-continue-to-gain.html>.

⁴³ Ookla Speedtest Global Index (October 2023), available at <https://www.speedtest.net/global-index/united-states#market-analysis>.

⁴⁴ See Josh Fomon, "New Speedtest Data Shows Starlink Performance is Mixed – But That's a Good Thing," *Ookla* (September 18, 2023), available at <https://www.ookla.com/articles/starlink-hughesnet-viasat-performance-q2-2023>.

⁴⁵ See Sheena Vasani, "SpaceX's Starlink made \$1.4 billion last year," *The Verge* (September 13, 2023), available at <https://www.theverge.com/2023/9/13/23872244/spacex-starlink-revenue-customer-base-elon-musk>.

⁴⁶ Joey Roulette, "Amazon launches first test satellites for Kuiper internet network," *Reuters* (October 6, 2023), available at <https://www.reuters.com/technology/amazon-launches-first-test-satellites-internet-network-2023-10-06/>.

⁴⁷ See David Phelan, "Project Kuiper: How Amazon Will Drape The World In Satellites," *Forbes* (June 23, 2023), available at <https://www.forbes.com/sites/davidphelan/2023/06/23/project-kuiper-how-amazon-will-drape-the-world-in-satellites/?sh=1135b5f24c0f>.

downstream and 3 Mbps upstream (25/3 Mbps) to 100/20 Mbps. It also previews a "long-term fixed broadband speed goal": 1 gigabit per second (Gbps) downstream and 500 Mbps upstream.⁴⁸ While we acknowledge that it may be time for the Commission to refresh its definition to reflect evolving consumer usage, we have concerns with both of the benchmarks set forth in the *Section 706 NOI*. Specifically, the former doesn't reflect a fact-intensive analysis of actual consumer needs, but rather appears to embrace a congressional eligibility requirement for new network construction subsidies – one that conveniently and familiarly sets the bar just beyond what viable alternative platforms (fixed wireless, satellite) currently deliver. The latter, meanwhile, enjoys no identifiable connection to reality, especially on the upstream side. It also inappropriately attempts to predict a future well beyond the one-year focus for Section 706 inquiries specified by Congress. Consequently, and as Commissioner Nathan Simington pointed out in his Separate Statement, it raises the troubling specter of unjustified future government-subsidized competition to privately constructed networks delivering even 100/20 Mbps speeds, particularly in rural areas where investment incentives are paramount:

Adopting a long-term target of 1000/500Mbps would send the message that in the near future, the FCC will consider speeds below that to be inadequate. By operation of the principles that have long guided our high-cost programs, this would put ISPs on notice that the FCC could soon subsidize competitors in any area where 1000/500Mbps connections are not available. Subsidized competition undermines the already tenuous profitability of rural ISPs.... The bottom line is that more Americans would be left unserved because the FCC pursued science fiction instead of sober policy.⁴⁹

⁴⁸ See *id.* at ¶ 9.

⁴⁹ See Statement of Commissioner Nathan Simington, Approving in Part and Concurring in Part, *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 22-270, Notice of Inquiry (October 25, 2023), available at <https://docs.fcc.gov/public/attachments/FCC-23-89A5.pdf>.

The *Section 706 NOI* notes that Congress, for purposes of the \$42.45 billion Broadband Equity, Affordability, and Deployment (BEAD) Program, defined in the Infrastructure Investment and Jobs Act a served location as one with access to at least 100/20 Mbps service.⁵⁰ However, the statutory language of Section 706 itself sets forth a clear benchmark, seemingly distinct from the BEAD Program's concepts of "served" and "underserved," regarding what constitutes "advanced telecommunications capability." Critically, this is a different consideration than that addressed by the IJA: that is, what minimum speeds federally subsidized broadband infrastructure must support.⁵¹

As we argued in "The FCC Should Define 'Broadband' Based on Actual Consumer Usage," an August 2023 *Perspectives from FSF Scholars*:

[T]o meaningfully determine 'whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion,' ... the FCC ought to leverage its technical and economic expertise, and input from the public, to develop an evidence-based model as to what 'advanced telecommunications capability' in fact entails. A deep dive into actual consumer usage of the Internet is required and in all likelihood will produce much different – and more relevant – results than policy-driven line-drawing that starts with favored distribution technologies and works backward.⁵²

Permeating the entire *Section 706 NOI*, and particularly the discussion of speed benchmarks, is the Biden Administration's tightly held preference for fiber-based networks, no matter what the cost.⁵³ One not-so-subtle way to advance that "fiber-first"

⁵⁰ See IJA § 60102(a)(1)(C) (defining an "underserved location" as one that lacks access to at least 100/20 Mbps reliable broadband service).

⁵¹ It is true that the FCC has an important role to play in coordinating the well over a hundred different federal broadband subsidy programs, and a plausible case could be made that a single standard – even 100/20 Mbps – is warranted to better safeguard against duplicate federal grants, waste, fraud, and abuse. The *Section 706 NOI*, however, relies upon no such justification.

⁵² Randolph J. May and Andrew Long, "The FCC Should Define 'Broadband' Based on Actual Consumer Usage," *Perspectives from FSF Scholars*, Vol. 18, No. 35 (August 24, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/08/The-FCC-Should-Define-Broadband-Based-on-Actual-Consumer-Usage-082423.pdf>.

⁵³ See, e.g., Andrew Long, "Future Guidance Can Fix NTIA's Flawed 'Fiber-First' Approach," *Perspectives from FSF Scholars*, Vol. 17, No. 27 (May 24, 2022), available at <https://freestatefoundation.org/wp->

agenda is through the manipulation of speed benchmarks. This is a key point, one that Michelle P. Connolly, Ph.D. – a member of the Free State Foundation's Board of Academic Advisors, Professor of the Practice within the Economics Department at Duke University, and two-time Chief Economist for the FCC – raised in a May 2023

Perspectives from FSF Scholars:

When I first joined the Federal Communications Commission as Chief Economist in 2006, the FCC defined broadband service as any Internet access service with a minimum download speed of 200 Kbps (i.e., 0.2 Mbps). I remember looking that up on the Internet the morning of my interview with the FCC Chairman. During my second appointment to the FCC there was discussion of raising the minimum required speeds to 4 Mbps down and 1 Mbps up. While technology and speed offerings were increasing, it was not exactly clear why the minimum speed required for Internet access to qualify as broadband had to be raised. Interestingly, at the time, geostationary orbit satellite operators were starting to offer higher speeds and, strictly on that basis, might have begun to count as broadband service under the original speed definition.⁵⁴

Whether intended to exclude certain distribution platforms (such as fixed wireless or satellite) or to favor fiber-based networks, benchmarks that start with a policy agenda and work backwards artificially inflate the count of unserved locations. That, in turn, leads to a higher price tag to close digital divides – and inappropriately subjects privately constructed networks providing adequate speeds to government-subsidized competition, thereby discouraging additional investment.

The plain text of Section 706, meanwhile, states that "advanced telecommunications capability is defined, without regard to any transmission media or

[content/uploads/2022/05/Future-Guidance-Can-Fix-NTIAs-Flawed-Fiber-First-Approach-052322-kb-edits.pdf](https://freestatefoundation.org/wp-content/uploads/2022/05/Future-Guidance-Can-Fix-NTIAs-Flawed-Fiber-First-Approach-052322-kb-edits.pdf), Randolph J. May and Andrew Long, "Future Proofing' Is Likely 'Fool's Proofing,'" *Perspectives from FSF Scholars*, Vol. 16, No. 32 (June 24, 2021), available at <https://freestatefoundation.org/wp-content/uploads/2021/06/Future-Proofing-Is-Likely-Fools-Proofing-062421.pdf>.

⁵⁴ Michelle P. Connolly, "Mindfully Wasteful Spending: The Definition of Broadband," *Perspectives from FSF Scholars*, Vol. 18, No. 20 (May 18, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/08/Mindfully-Wasteful-Spending-The-Definition-of-Broadband-051823.pdf>.

technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology."⁵⁵ Notably, this single-sentence definition references the concept of technological neutrality ("any technology") not once, but twice.

As the agency tasked with interpreting the statutory definition of "advanced telecommunications capability," it is the Commission's responsibility not to set the bar so high that only fiber-based networks qualify, but rather to leverage its technical, subject-matter expertise and determine what minimum speeds – upstream and downstream – consumers actually require.⁵⁶ As Dr. Connolly explained:

The FCC's definition is supposed to represent the minimum threshold for service to officially count as broadband service. It is not supposed to represent the minimum needed for a household with five gamers, two live streamers, and two grandparents streaming to two ultra-high-definition 4K TVs 24 hours a day. Nor should it. Extremely high speeds are not necessary for every household, and this is not how one should define a minimum threshold for a technology – especially when that minimum threshold will dictate the size and existence of presumed digital divides, how much federal money will be spent to close them, precisely where that money will go, and the extent to which it will be used to subject existing, privately financed networks to government-subsidized competition.⁵⁷

With this in mind, it is evident that a fact-intensive model, devoid of predetermined line-drawing, is what's required.⁵⁸ The *Section 706 NOI* asks whether "[i]t is necessary for the

⁵⁵ 47 U.S.C. § 1302(d)(1).

⁵⁶ That undertaking reasonably might include a certain amount of looking forward – but recall that Section 706 inquiries are to take place every year, not on a timeline so expansive that, for example, conceivably might warrant upstream speeds of 500 Mbps.

⁵⁷ Michelle P. Connolly, "Mindfully Wasteful Spending: The Definition of Broadband," *Perspectives from FSF Scholars*, Vol. 18, No. 20 (May 18, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/08/Mindfully-Wasteful-Spending-The-Definition-of-Broadband-051823.pdf>.

⁵⁸ The fact-intensive modeling for which we advocate also would address the Government Accountability Office's call for greater consistency and transparency when defining "advanced telecommunications capability" in terms of speed. See *Section 706 NOI* at ¶ 24 (citing U.S. Government Accountability Office, "FCC Should Improve Its Communication of Advanced Telecommunications Capability Assessments" (April 2023), available at <https://www.gao.gov/assets/gao-23-105655.pdf>, at 19).

Commission to examine particular consumer use cases in selecting a speed benchmark."⁵⁹ The answer, unequivocally, is "yes." Moreover, such use cases must be based upon reasonable assumptions as to *representative* household size, number of simultaneous users, level of video quality consumed, and so on. As just one example, video content is responsible for the lion's share of Internet traffic: 65 percent in 2022, according to Sandvine.⁶⁰ In crafting a realistic usage model, the Commission should acknowledge that High Definition (HD) video remains the benchmark for "high-quality" video – not Ultra-High Definition (UHD or 4K) video, an extreme option for which consumers often must pay a premium⁶¹ and whose inclusion in the analysis inappropriately would suggest higher bandwidth requirements than consumers currently demand.

The *Section 706 NOI* ask similar questions regarding mobile broadband, including whether it is "necessary for us to examine particular consumer use cases."⁶² Again, the answer is "yes." As we explained in "The FCC Should Define 'Broadband' Based on Actual Consumer Usage,"⁶³ the *Perspectives from FSF Scholars* referenced above:

Consumers increasingly rely upon smartphones and other devices tailored to their individualized needs. According to Pew Research Center data from early 2021, 15 percent of adults are "smartphone-only" users – and "[f]ully 71 percent of non-broadband users say they are not interested in

⁵⁹ *Section 706 NOI* at ¶ 21.

⁶⁰ See Sandvine Press Release, "Sandvine's 2023 Global Internet Phenomena Report Shows 24% Jump in Video Traffic, with Netflix Volume Overtaking YouTube" (January 20, 2023), available at <https://www.sandvine.com/press-releases/sandvines-2023-global-internet-phenomena-report-shows-24-jump-in-video-traffic-with-netflix-volume-overtaking-youtube>.

⁶¹ See, e.g., Max Help Center, "Watch Max in 4K UHD & HDR10 or Dolby Vision," available at <https://help.max.com/us/Answer/Detail/000002523> (stating that in order to stream 4K UHD video one must subscribe to the Ultimate Ad-Free plan), Netflix Help Center, "Plans and Pricing," available at <https://help.netflix.com/en/node/24926> (stating that only subscribers to the Premium plan can stream content in Ultra HD).

⁶² *Section 706 NOI* at ¶ 34.

⁶³ Randolph J. May and Andrew Long, "The FCC Should Define 'Broadband' Based on Actual Consumer Usage," *Perspectives from FSF Scholars*, Vol. 18, No. 35 (August 24, 2023), available at <https://freestatefoundation.org/wp-content/uploads/2023/08/The-FCC-Should-Define-Broadband-Based-on-Actual-Consumer-Usage-082423.pdf>.

having such a connection at home."⁶⁴ Consequently, should the FCC consider defining "broadband" technical requirements on a per-person basis? If so, to what extent might the total bandwidth needs of a 3-person household be less than the sum of its parts, for example due to communal viewing of streaming video?

In both individual and multi-person households, consumers increasingly are choosing to rely solely on smartphones to access the Internet⁶⁵ – and, as noted above, the bandwidth needs of a single user accessing the Internet via a mobile device do not appear to be the same as a household sharing a fixed connection across multiple users and a range of connected hardware (laptops, PCs, smart TVs, Internet of Things (IoT) devices, etc.). Given these starkly different scenarios, the time has come for the Commission to acknowledge that, for a significant portion of the user base, mobile broadband offerings, both 4G LTE and 5G, can serve as full substitutes for a home Internet connection.

Moreover, and as we detailed in a previous section, it is evident that fixed wireless access (FWA) offerings already compete aggressively with traditional wired broadband services, and LEO satellite-based services are poised to do the same.

Accordingly, all three should be treated as robust rivals within a single "home Internet" product market.

V. The Plain Language of Section 706 Confines the Commission's Focus to Availability and Pace of Deployment

Rather than accept the plain meaning of Section 706 for what it is, the *Section 706 NOI* seizes upon a single sentence in the 1,000+ page Infrastructure Investment and Jobs

⁶⁴ See Andrew Perrin, "Mobile Technology and Home Broadband 2021," *Pew Research Center* (June 3, 2021), available at <https://www.pewresearch.org/internet/2021/06/03/mobile-technology-and-home-broadband-2021/>.

⁶⁵ See, e.g., Lucy Handley, "Nearly three quarters of the world will use just their smartphones to access the internet by 2025," *CNBC* (January 24, 2109), available at <https://www.cnbc.com/2019/01/24/smartphones-72percent-of-people-will-use-only-mobile-for-internet-by-2025.html>.

Act (IIJA)⁶⁶ – one that incorporates Section 706 by reference solely for definitional purposes, no less – to suggest that, over a quarter century after its passage, Section 706 suddenly requires the complete realization of a familiar litany of Biden Administration policy preferences beyond availability and pace of deployment: affordability, adoption, and equitable access.

Specifically, Section 60401 of the IIJA states that "the term 'universal service goals for broadband' means the statutorily mandated goals of universal service for advanced telecommunications capability under section 706 of the Telecommunications Act of 1996 (47 U.S.C. 1302)." Leveraging that brief reference, the *Section 706 NOI* overreaches to champion partisan policy objectives well outside the scope of Section 706. To do so, the agency engages in a substantial amount of interpretative sleight of hand: the phrase "*goals of universal service*" requires that "available" and "is being deployed" have different meanings;⁶⁷ "is being deployed," widely understood to refer to the pace of deployment, is recast as the "state of deployment" – in other words, whether broadband is "available";⁶⁸ and, finally:

Section 706 does not equate these terms, and we therefore believe that in order to give meaning to both terms we have discretion in assessing "availability" to consider factors other than solely the state of "deployment." Consistent with this discretion and the additional context provided by the Infrastructure Act, the Commission, in the Future of Universal Service Fund Report issued pursuant to the requirements of the Infrastructure Act, determined the broadband universal service goals of section 706 to be "universal deployment, affordability, adoption, availability, and equitable access to broadband throughout the United

⁶⁶ Infrastructure Investment and Jobs Act, Pub. L. No. 117-58 (November 15, 2021), available at <https://www.congress.gov/117/plaws/publ58/PLAW-117publ58.pdf> (IIJA).

⁶⁷ *Section 706 NOI* at ¶ 7.

⁶⁸ *Id.* at ¶ 65 (asserting that "universal *access* is the benchmark by which we should examine physical *deployment*") (emphasis added).

States." We propose to use these same goals to conduct our section 706 inquiry and seek comment on this proposal.⁶⁹

From there, the *Section 706 NOI* bootstraps to the following question posed in paragraph 65: "[c]an anything less than universal access in these areas be sufficient to reach a positive finding under section 706?"⁷⁰ The answer, of course, is "yes." As Commissioner Brendan Carr made plain in his Separate Statement, "[r]eading Section 706 as directing the Commission to determine whether advanced telecommunications capability has already been deployed to 100% of Americans reads the 'reasonable and timely' language out of the statute and is inconsistent with Congress' use of the present progressive tense 'is being deployed.'"⁷¹

In its penultimate paragraph, the *Section 706 NOI* goes even further, questioning whether the data that the *Section 706 NOI* seeks pursuant the statute, *and seemingly even the National Broadband Map itself*, might be so inherently unreliable as to render a positive finding factually unattainable: "[a]re any issues with the available data significant enough, either individually or cumulatively, to prevent us from making a definitive finding under section 706, *regardless of what the data may show?*" (emphasis added).⁷²

"[R]egardless of what the data may show" is a remarkable tell-tale sign. The intent of these intellectual contortions is clear: no matter what the record – to say nothing of the FCC's own data – reveals, the majority intends to conclude that Section 706

⁶⁹ *Id.* at ¶ 7 (citations omitted).

⁷⁰ *Id.* at ¶ 65.

⁷¹ Statement of Commissioner Brendan Carr, Approving in Part and Concurring in Part, *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 22-270, Notice of Inquiry (October 25, 2023), available at <https://docs.fcc.gov/public/attachments/FCC-23-89A3.pdf>.

⁷² *Id.* at ¶ 66.

empowers it to pursue its unrelated policy goals: "universal deployment, affordability, adoption, availability, and equitable access to broadband throughout the United States."⁷³

VI. Conclusion

In 2023, the actions of the Biden Administration make it easier than ever before to conduct an annual inquiry pursuant to Section 706. The Commission-created National Broadband Map definitively demonstrates that advanced telecommunications capability is both widely available and being deployed in a reasonable and timely fashion, and the tens of billions of dollars in federal subsidies that NTIA, Treasury, USDA, the FCC, and other agencies are in the process of doling out are more than sufficient to connect the rapidly dwindling number of locations still unserved. These facts compel a positive Section 706 finding, notwithstanding the strained efforts by the Commission's Democratic majority to rewrite the statute to require nothing less than immediate, universal, affordable, and equitable access.

⁷³ *Id.* at ¶ 2.

But should the Commission somehow nevertheless feel compelled to take action pursuant to this pro-investment statutory provision, it certainly could expedite the deployment process "by removing barriers to infrastructure investment and by promoting competition in the telecommunications market."⁷⁴ Such barrier-removing steps might include making additional spectrum available for commercial use, addressing concerns relating to pole attachment disputes, simplifying permitting processes and access to rights of way, and more.

Respectfully submitted,

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⁷⁴ 47 U.S.C. § 1302(b).