

**Before the
Federal Communications Commission
Washington, D.C. 20554**

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| In the Matter of |) | |
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| |) | |
| Inquiry Concerning Deployment of Advanced |) | GN Docket No. 18-238 |
| Telecommunications Capability to All Americans |) | |
| in a Reasonable and Timely Fashion; |) | |
| |) | |
| Modernizing the FCC Form 477 Data Program |) | WC Docket No. 11-10 |

**REPLY COMMENTS OF
NEW AMERICA’S OPEN TECHNOLOGY INSTITUTE**

Amir Nasr
Eric Null
Joshua Stager

New America’s Open Technology Institute
740 15th Street NW, Suite 900
Washington, D.C. 20005

October 1, 2018

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I. Introduction

New America's Open Technology Institute ("OTI") respectfully submits these reply comments to the Federal Communications Commission's ("Commission") Fourteenth Broadband Deployment Report 2018 Section 706 Notice Of Inquiry ("2018 Section 706 NOI"). In these reply comments, OTI highlights the record's (1) strong opposition to the suggestion that mobile BIAS could be considered a viable substitute for fixed BIAS, (2) support for increasing the throughput benchmark for the Commission's definition of "advanced telecommunications capability," and (3) evidence that Form 477 data greatly undermines the reliability of its Section 706 findings.

First, the Commission should not deem mobile BIAS as a substitute for fixed BIAS. Some commenters argue that because studies show that *some* consumers have opted to use mobile BIAS exclusively, but they do not acknowledge that this consumer behavior has been found to be in response to the high costs of fixed BIAS, rather than the ability of mobile services to serve as a viable substitute. When consumers have the means to purchase both mobile and fixed services, they generally do, and studies show that low-income consumers make up a majority of the population that are dependent on mobile BIAS for connectivity. Further, the record shows that rural areas would be disproportionately harmed by a finding that mobile BIAS is equivalent to fixed BIAS, as outside areas with higher population densities and major highways, service grows weak and spotty.

Second, the record shows strong support for an increase to the throughput speed threshold of 25 Megabits per second download by 3 Megabits per second upload that the Commission currently has set for "advanced telecommunications capability." The Commission should be setting the goal to be leading the world in broadband connections and throughput speeds,

particularly as innovations in how Americans' use the internet for work, education, and entertainment is ever-growing. There is strong support in the record for the Commission's current Section 706 NOI, as well as last year's, for an increase to this threshold to push the United States to challenge other nations to become the best. Meanwhile, the U.S. currently ranks 10th in the world for average connection speed. While OTI offered a conservative compromise of 100 Megabits per second download speeds as a new threshold for high-speed broadband, a bigger and bolder goal for the Commission to set would be 1 Gigabit per second download speeds. OTI urges the Commission to adopt a forward-looking definition of "advanced telecommunications capability" to ensure that the American broadband market is keeping up with the demand of online services.

Finally, the record shows support for a change in the Commission's reliance on industry-reported data through Form 477. Although Form 477 reporting offers the Commission consistent data from internet service providers, that data on its own is too inaccurate to base an entire report on broadband access and deployment due to significant caveats. Internet service providers are able to declare a census block as served if only one location there has service, and further are only required to report the speeds they are *feasibly* able to provide, not the speeds that are actually available in a certain location. The Government Accountability Office recently detailed these significant shortcomings and how they resulted in overstated broadband access data in Tribal lands. The Commission should heed the findings of that GAO report, as well as its previous acknowledgements that Form 477 data results in overstated broadband deployment figures, and incorporate independent checks on industry-reported data, as well as fixing the caveats existent in Form 477 reporting requirements.

II. The Record Shows That Mobile Is Not a Substitute for Fixed

The record shows strong opposition to the notion, put forth in the Commission’s NOI,¹ that mobile BIAS is a substitute for fixed BIAS.² Despite what others argue, the fact that some Americans rely exclusively on mobile BIAS does not prove that it is a viable substitute for fixed BIAS. Studies suggest that those who are mobile-only depend on mobile services because they cannot afford to purchase both mobile and fixed service. Data caps, limited bandwidth capacity, the inconsistency of signal strength, and complex pricing models limit mobile BIAS from being a substitute for fixed BIAS. Americans in rural areas, in particular, are unable to use mobile BIAS as a true substitute for fixed BIAS, due to coverage restrictions.

A. Consumer Reliance on Mobile BIAS Does Not Mean Mobile BIAS Is a Viable Substitute for Fixed BIAS

Some commenters suggest that because some consumers rely exclusively on mobile BIAS for connectivity, that means that it can serve as a viable substitute for fixed BIAS.³ NCTA claims, “Millions of consumers choose to rely solely on mobile broadband services even where they have the option to purchase fixed services, and that this number appears poised to increase as 5G wireless services are deployed.”⁴ AT&T similarly argues that studies show that “significant numbers of consumers are using mobile devices for activities that were once

¹ Fourteenth Broadband Deployment Report 2018 Section 706 Notice Of Inquiry, GN Docket No. 18-238 (Aug. 9, 2018), ¶ 11 (“2018 Section 706 NOI”).

² INCOMPAS Comments; Communications Workers of America Comments; WTA– Rural Broadband Advocates Comments; NTCA– Rural Broadband Association Comments; Public Knowledge and Common Cause Comments; Wireless Internet Service Providers Association Comments; National Rural Electric Cooperative Association Comments; and Massachusetts Department of Telecommunications and Cable Comments. References to comments relate to this proceeding (GN Docket No. 18-238) unless noted otherwise.

³ AT&T Comments at 5-6 and NCTA Comments at 5-6.

⁴ NCTA Comments at 5-6.

dominated by personal computers and larger-screen televisions.”⁵ Both of these arguments take into account the strength of the mobile industry without acknowledging the limitations of mobile BIAS and the reasons consumers tend to rely on mobile services over fixed services.

NCTA’s claims are unpersuasive. First, NCTA’s argument that the Commission should “take into account” millions of Americans who rely on mobile BIAS⁶ ignores a crucial factor: cost. Studies confirm that the high cost of broadband service prevents many low-income Americans from subscribing to both fixed and mobile BIAS, so they often rely on mobile BIAS alone.⁷ For example, 31 percent of Americans who make less than \$30,000 annually are dependent on smartphones for internet access, compared to 14 percent of those who make between \$50,000 and \$74,999 per year and just 9 percent of those who make \$75,000 or more annually.⁸ In another survey, 63 percent of respondents reported that they were “not likely at all” to cancel home broadband and go mobile-only.⁹

Second, NCTA’s claim¹⁰ that the 5G will somehow also be a substitute for fixed BIAS is unsubstantiated, highly unlikely to occur in the near future, and highly unlikely to occur outside urban areas with high population density.¹¹ Additionally, as Public Knowledge and Common Cause argue, the term “5G” is used by various providers to mean different services offered through various bands of spectrum, and in some cases a combination of fixed services and

⁵ AT&T Comments at 6.

⁶ NCTA Comments at 5-6.

⁷ *Internet/Broadband Fact Sheet*, Pew Research Center (Feb. 5, 2018), <http://www.pewinternet.org/fact-sheet/internet-broadband/> (“Reliance on smartphones for online access is especially common among younger adults, non-whites and lower-income Americans.”); Public Knowledge and Common Cause Comments at 12 (“This is increasingly important as studies indicate a majority of Americans rely on both fixed and mobile broadband for service, and that those who are smartphone-only are disproportionately low-income Americans”).

⁸ *Id.*

⁹ John Horrigan, *Smartphones and Broadband: Tech users see them as complements and very few would give up their home broadband subscription in favor of their smartphone* (Nov. 2014), at 8, https://www.publicknowledge.org/assets/uploads/blog/Smartphones_and_Broadband.pdf.

¹⁰ NCTA Comments at 6.

¹¹ Public Knowledge and Common Cause Comments at 12-13; OTI Comments at 27-30.

mobile services.¹² Due to these uncertainties over what “5G” will even mean for consumers, OTI agrees that “the Commission should not give blanket treatment to anything labelled ‘5G,’ whether fixed or mobile, whether millimeter wave or other frequency, as a substitute for fixed broadband.”¹³

AT&T’s arguments are similarly unavailing. AT&T argues that mobile BIAS is a reliable substitute for fixed BIAS by citing an unpersuasive study from the Internet Innovation Alliance.¹⁴ The study asks the broad, ambiguous question, “In the past year, have you or anyone in your household used a mobile device for any of the following activities?”, and then lists several activities, including “reading and/or watching news or sports” and “streaming videos or music.”¹⁵ Majorities responded that they had used a mobile device for both. However, this does not in any way translate to reliance on mobile devices, nor whether or not they are an adequate substitute for fixed services. Just because consumers have, at some point in the past year, used a mobile device to do these activities does not mean that they rely on their mobile devices for watching the news or their favorite TV shows. Additionally, the respondents who were using mobile devices for these activities could have been using fixed BIAS through Wi-Fi, the study does not account for whether the respondent is using mobile BIAS or fixed.

Further, AT&T cites the study to suggest consumers do *use* mobile BIAS for employment and education purposes, fixed BIAS remains much better for that due to data caps and general functionality.¹⁶ Consumer attest to this—47 percent of Americans surveyed by the Pew Research Center who had used a smartphone as part of a job search experienced problems accessing

¹² *Id.*

¹³ *Id.*

¹⁴ *Evolving Preferences: Consumer Preferences Tilting Towards Mobile Broadband*, Internet Innovation Alliance (July 17, 2018) <https://internetinnovation.org/special-reports/consumer-preferences-tilting-towards-mobile-broadband/>; AT&T Comments at 6.

¹⁵ *Id.*

¹⁶ *Id.*

content that did not display properly on a mobile device and reading job content not optimized for mobile use.¹⁷

B. Rural Areas Would Be Uniquely Harmed By A Finding That Mobile BIAS Is A Substitute For Fixed BIAS

The record shows that deeming mobile BIAS as a substitute for fixed BIAS would be particularly harmful to rural areas,¹⁸ where mobile wireless service is currently “intermittent, spotty or nonexistent.”¹⁹ The inconsistent service offered by mobile BIAS in rural areas is largely attributable to “terrain, weather conditions, power levels, and distance from transmitting equipment,” which renders mobile a poor substitute for fixed BIAS.²⁰ OTI agrees with the National Rural Electric Cooperative Association’s argument that the Commission “understated the major differences” between mobile BIAS and fixed BIAS in its 2018 *Broadband Deployment Report*, and that the two are distinct products due to the difference in pricing schemes and monthly data limits.²¹

Mobile BIAS is simply not reliable or ubiquitous enough in rural areas to be considered a substitute to fixed services. WTA tells the Commission that its members have experienced the “intermittent, spotty, or nonexistent” mobile wireless service in rural areas, and that mobile wireless service in rural areas is often limited to “larger communities and along major interstate

¹⁷ Monica Anderson and John B. Horrigan, *Smartphones help those without broadband get online, but don’t necessarily bridge the digital divide*, Pew Research Center (Oct. 3, 2016) <http://www.pewresearch.org/fact-tank/2016/10/03/smartphones-help-those-without-broadband-get-online-but-dont-necessarily-bridge-the-digital-divide/>

¹⁸ WTA—Rural Broadband Advocates Comments; NTCA Comments; WISPA Comments; INCOMPAS Comments; and National Rural Electric Cooperative Association Comments.

¹⁹ WTA—Rural Broadband Advocates Comments at 1.

²⁰ NTCA Comments at 4.

²¹ National Rural Electric Cooperative Association Comments at 4-5.

and regional highway segments where substantial roaming traffic can be found.”²² That strong mobile coverage “diminishes or disappears” the farther away it is from main communities and as terrain becomes more rugged, making it a particularly poor argument as a substitute for fixed in many rural areas.²³ Although mobile wireless technologies can help connect rural Americans to the internet, they must still connect “relatively quickly to a fiber network in the network topology so that consumers are not dependent solely on the limited and shared capacity of spectrum beyond certain access points.”²⁴ In that sense, even in hard-to-reach rural areas, mobile BIAS is still reliant on the existence of fixed networks.

III. The Commission Should Increase The Throughput Threshold For the Definition of “Advanced Telecommunications Capability”

As articulated in initial comments, OTI urges the Commission to raise its high-speed broadband throughput benchmark for its definition of “advanced telecommunications capability.” OTI agrees with the several commenters who argue for increasing the throughput threshold and urges the Commission to, at the very least, increase it to a throughput speed of 100 Megabits per second (Mbps) download.²⁵ This argument has been raised in the past as well.²⁶ OTI set 100 Mbps download as a conservative compromise, but would support a higher threshold, such as INCOMPAS’s 1 Gigabit download proposal.²⁷ The United States has a lot of room to improve when compared internationally; it ranks 10th in the world for average

²² WTA—Rural Broadband Advocates Comments at 2.

²³ *Id.*

²⁴ NTCA Comments at 4.

²⁵ Cite to INCOMPAS, Central Coast Broadband Consortium, PK and Common Cause, CWA.

²⁶ American Library Association Reply Comments, GN Docket No. 17-199, (Oct. 6, 2017); Public Knowledge, Access Humboldt, Access Sonoma, Appalshop, Benton Foundation, Broadband Alliance, California Center for Rural Policy, Center for Rural Strategies, National Consumer Law Center, on behalf of its low-income clients, National Hispanic Media Coalition, and X-Lab Comments, GN Docket No. 17-199, (Sep. 21, 2017); INCOMPAS Comments, GN Docket No. 17-199, (Sep. 21, 2017).

²⁷ INCOMPAS at 6.

connection speed.²⁸ Further, OTI agrees with Public Knowledge and Common Cause that the Broadband Data Improvement Act directs the Commission to continuously improve the standard for broadband.²⁹

IV. The Commission’s Reliance on Form 477 Data Creates Significant Flaws

The record shows the Commission should not continue to rely solely on its Form 477 data to determine broadband deployment and availability as part of its Section 706 review.³⁰ The Commission’s Form 477 data overstates the availability of broadband and where it is deployed, particularly because internet service providers self-report, with no verification, where they deploy on a census block level, with only one household or location in a census block necessary to deem that block as “served.”³¹ The Commission should also include pricing and broadband performance data as part of its Section 706 review, and should implement a verification method to ensure accuracy of ISP claims.³² The Government Accountability Office recently highlighted related to the Commission not collecting data on cost and quality of service.³³ Further, OTI agrees with Microsoft that the Commission could (and should) fix the problems with Form 477 deployment data by restricting the broadband deployment dataset to only the census blocks where broadband has *actually* been deployed.³⁴

²⁸ CWA Comments at 3.

²⁹ Public Knowledge and Common Cause Comments at 4.

³⁰ Public Knowledge and Common Cause Comments; INCOMPAS Comments; Microsoft Comments; Laurel Ridge Comments.

³¹ Public Knowledge and Common Cause Comments at 8-10; Microsoft Comments at 3-5; INCOMPAS Comments at 3 n.8.

³² Public Knowledge and Common Cause Comments at 9.

³³ Government Accountability Office, *Broadband Internet: FCC’s Data Overstate Access on Tribal Lands*, (Sept. 2018), <https://www.gao.gov/assets/700/694386.pdf> (“GAO Tribal Broadband Data Report”) at 20-21.

³⁴ Microsoft Comments at 4.

In addition to the several cases of inaccurate Form 477 data identified by OTI,³⁵ the Government Accountability Office (GAO) uncovered that the data similarly overstates availability on Tribal lands.³⁶ The GAO details how the Commission's Form 477 data, and the limitations discussed above and in OTI's initial comments, such as an ISP needing to only report where it *could* provide services at certain speeds, were at fault in the case of the Commission overstating broadband availability on tribal lands.³⁷ The Commission must improve its data collection methods to gain a stronger understanding of broadband deployment in the United States.

V. Conclusion

The Commission must ensure that its Section 706 review of broadband deployment and availability is accurate. We respectfully ask the Commission to adopt the recommendations set forth above.

³⁵ OTI Comments at 5-15.

³⁶ GAO Tribal Broadband Data Report.

³⁷ GAO Tribal Broadband Data Report at 17-18.