



August 25, 2021

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
45 L Street NE
Washington, DC 20554

***RE: Establishing the Digital Opportunity Data Collection, WC Docket No. 19-195;
Addressing the Homework Gap through the E-Rate Program, WC Docket No. 21-31;
Establishing Emergency Connectivity Fund to Close the Homework Gap, WC Docket
No. 21-93.***

Dear Ms. Dortch:

On August 23, 2021, Michael Calabrese and Amir Nasr of New America’s Open Technology Institute (“OTI”) and Jenna Leventoff, Greg Guice, and Kathleen Burke of Public Knowledge (“PK”) met via video conference with the Broadband Data Task Force Chair, Jean Kiddoo, and Senior Counsel, Sean Spivey, as well as the Wireline Competition Bureau’s Telecommunications Access Policy Division Deputy Division Chief, Johnnay Schrieber, and Special Counsel, Katherine Dumouchel.

The parties discussed the Commission’s ongoing efforts to improve broadband mapping and the Public Notice seeking comment on a series of data collection, verification, and challenge processes associated with the Commission’s work to develop granular nationwide mobile LTE maps.¹ OTI and PK urge the Commission to ensure the process to collect and to challenge data

¹ Comment Sought on Technical Requirements for the Mobile Challenge, Verification, and Crowdsourcing Processes Requires Under the Broadband DATA Act, WC Docket No. 19-195 (Rel. July 16, 2021), <https://docs.fcc.gov/public/attachments/DA-21-853A1.pdf> (“Mobile Map Public Notice”).

supplied by mobile providers is robust and as burden-free for consumers as possible. Accurate and granular mobile coverage maps are crucial to several ongoing connectivity efforts such as those being pursued by school districts for students lacking broadband access at home, an issue central to the Emergency Connectivity Fund.

OTI and PK commend the Commission for its efforts to improve broadband mapping data and visualization. The mobile LTE availability map released this month was a strong step in that direction.² However, as that map still relies on the Form 477 data with which the Commission has long been saddled, the map has shortcomings that will need addressing. Without added detail of signal strength and the throughput speeds experienced by consumers in local communities, consumers, schools and local governments will have little idea whether an area of the map deemed “served” by 4G LTE would bring them wireless connectivity sufficient to access reliable broadband internet connectivity or merely to complete a voice call.

The Broadband Deployment Accuracy and Technological Availability Act (Broadband DATA Act), which directed the Commission to undertake this revamped mobile broadband mapping effort, specifies that in submitting coverage maps, mobile carriers must satisfy certain requirements. These include meeting a minimum speed threshold of 5 megabits per second download and 1 mbps upload, as well as “any other parameter that the Commission determines to be necessary to create a map under subsection (c)(1)(C) that is more precise than the map produced as a result of the submissions under the Mobility Fund Phase II information collection.”³ OTI and PK urge the Commission to consider ways to include and disclose other vital performance criteria, such as throughput speeds actually experienced in local and granular coverage areas. Without such context, it is impossible for consumers and policymakers to know if a certain area is just barely meeting the threshold—and whether that speed is often not experienced on the ground depending on whether indoors or outdoors and weather conditions—or if the area is robustly served.

Further, OTI and PK urge the Commission to ensure that the challenge process is as streamlined and burden-free as possible for consumers, community anchor institutions, and grassroots organizations. It should not be necessary to hire expensive consultants to file a challenge to the maps. In doing so, the Commission should present consumers with not only its own speed test application, as it has released, but also allow the option to use other trusted sources to challenge providers’ claims. This is particularly important for low-income and rural Americans—the people who are more likely to experience slower service due to the deployment patterns of the

² Mitchell Clark, “The FCC finally made a new broadband map of the US,” The Verge (Aug. 6, 2021), <https://www.theverge.com/2021/8/6/22613096/fcc-cellular-broadband-voice-availability-map-data>.

³ Broadband Deployment Accuracy and Technological Availability Act, Pub. L. No. 116-130, 134 Stat. 228 (2020) (codified at 47 U.S.C. §§ 641-646) (“Broadband DATA Act”) at 15.

major carriers—and who are also more likely to be mobile-only broadband users.⁴ The Commission should take into account that they will not necessarily have easy access to high-capacity fixed broadband connections and computers needed to navigate a multi-step process to challenge to a mobile carrier’s faulty maps.

To make the challenge process more consumer-friendly, OTI and PK urge the Commission to ensure that other challenges are made available publicly in an easy-to-search format by geography (e.g., by state, locality, zip code) as well as by provider. Customers paying for mobile service should be able to easily check if others in their area believe they are experiencing degraded service compared to what their carrier is reporting to the Commission and join in such complaints by filing a challenge. Making the challenges searchable is particularly important as the map will not show roaming coverage—meaning if a consumer wants to check how their own service would be impacted when they travel to a new job, school, or other location nearby, they would have to check for challenges in that adjacent area, but might not know precisely for what data to search.

Facilitating the crowdsourcing of speed tests to inform the challenge process is likewise essential to ensure that the process is well-informed and not limited to the challenges and data provided by rival providers with the financial self-interest, resources and expertise to engage in the process. The Broadband DATA Act requires that the Commission consider, as part of its establishment of the challenge process, the “need to mitigate the time and expense incurred by, and the administrative burdens placed on, entities or individuals” in challenging the maps and the damage done to consumers if funds are misallocated due to faulty maps.⁵ Ensuring a vibrant, easy-to-use challenge process will be central to the Commission’s new mapping initiative working to the fullest extent.

Finally, OTI and PK urge the Commission to take into account how the scope of the mobile mapping data will affect not only policy, but the ability of localities to connect their constituents. In particular, the nature of this mapping data and its geographic granularity will impact the ability of school districts to apply for Emergency Connectivity Funding money to support efforts to extend broadband connectivity directly to students in unserved or underserved neighborhoods or locations. Dozens of school districts and libraries are currently using a variety of wireless technologies – including community Wi-Fi, private LTE networks fueled by Citizens Broadband Radio Service (CBRS) spectrum, and fixed wireless networks powered by TV White Space spectrum – to extend remote learning to students lacking internet at home in a more cost-effective and robust manner than indefinitely buying monthly subscriptions from mobile carriers

⁴ Andrew Perrin, “Mobile Technology and Home Broadband 2021,” The Pew Research Center (June 3, 2021), <https://www.pewresearch.org/internet/2021/06/03/mobile-technology-and-home-broadband-2021/>.

⁵ Broadband DATA Act at 18-19.

for hotspots and other ISPs. Schools, libraries and local governments are doing this in part because many neighborhoods have neither adequate commercial wireline nor wireless service. While mobile maps may show theoretical coverage at 5/1 mbps in virtually every well-populated area, the reality is that mobile ISP throughputs and/or signal strength is inadequate in a large number of communities to support remote learning via streaming video.

In the Report & Order adopting rules for the Emergency Connectivity Fund (ECF), the Commission stated that school districts engaged in public-private partnerships to self-provision connectivity to students' homes would only be able to do so if "there is simply no commercially available Internet access service for purchase available to reach students, school staff, and library patrons in their homes" and that these school districts would be required to "therefore demonstrate that there were no commercially available Internet access service options sufficient to support remote learning from one or a combination of providers."⁶ OTI strongly opposed this sort of restriction and burden of proof. However, given the rules adopted, the Commission's mobile mapping data can play a key role in the ability of school districts and libraries being able to prove, one way or another, its ability to partner with private companies, nonprofits, and local governments to provision networks to beam broadband service to students' homes.

Last year, OTI profiled several school districts deploying innovative wireless broadband solutions to connect students for remote learning, often specifically due to the fact that mobile hotspots were not providing adequate throughput or signal strength to close the homework gap.⁷ OTI is currently extending this research and conducting interviews with school superintendents, chief technology officers, local government partners, vendors and others involved in these projects. These stakeholders consistently report that while mobile hotspots *can* and *do* play a key role in connecting students for remote learning – particularly in urban/suburban settings – they cannot be relied upon in many other areas (particularly low-density and low-income areas) due to issues related to service reliability, propagation, topographical and natural obstacles such as trees and mountains, and more.

However, if school districts are required to prove that there is no adequate mobile ISP service in their area to obtain ECF support for self-provisioned solutions, they need mapping data that shows the reality of connectivity in particular neighborhoods. If the Commission's mobile mapping *does* disclose a provider covers a community because it technically meets the 5/1 threshold according to maps generated by data submitted by the carrier – but the service is

⁶ Report and Order, WC Docket No. 21-93 (Rel. May 11, 2021), <https://docs.fcc.gov/public/attachments/FCC-21-58A1.pdf> ¶¶ 40-41.

⁷ Michael Calabrese and Amir Nasr, "The Online Learning Equity Gap: Innovative Solutions to Connect All Students at Home," New America's Open Technology Institute Report (Nov. 17, 2020), <https://www.newamerica.org/oti/reports/online-learning-equity-gap/> ("OTI E-Rate Report").

unreliable and insufficient to support any reasonable remote learning applications – it could undermine educational connectivity efforts throughout the country. These are very real policy implications that impact the future of this country and the future of communities nationwide. OTI and PK urge the Commission to ensure that the processes it takes up for data analysis and challenge submission create a map that is as accurate as possible.

For millions of consumers in the U.S, mobile broadband is their only access to the connectivity needed for employment, telehealth, keeping up with current events, and other activities. Vulnerable populations will be those most harmed, as 27 percent of adults making less than \$30,000 annually told the Pew Research Center that they are mobile-only internet users, as did 17 percent of rural respondents.⁸ Bandwidth-intensive applications such as video conferencing for work, job interviews and telehealth require strong signal strength and robust throughput speeds, particularly indoors. If the FCC map claims an area is served and it is not, it could greatly undermine communities’ ability to complete everyday tasks. Further, knowing the actual speeds offered and experienced in each area, and the differences between various areas, would assist both in consumer and policymaker decision making.

OTI and PK thank the Commission for its work advancing the goals that Congress expressed in the Broadband DATA Act. Ensuring consumers and communities gain both granular transparency and input into the accuracy of these maps and the challenge process will be crucial, as they ultimately are the ones experiencing this service day in, day out.

Respectfully submitted,

/s/

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⁸ Andrew Perrin, “Mobile Technology and Home Broadband 2021,” The Pew Research Center (June 3, 2021), <https://www.pewresearch.org/internet/2021/06/03/mobile-technology-and-home-broadband-2021/>.