

**Before the Federal Communications Commission  
Washington DC 20554**

In the Matter of )  
 )  
Inquiry Concerning Deployment of Advanced ) GN Docket No. 17-199  
Telecommunications Capability to All Americans )  
In a Reasonable and Timely Fashion )

**Reply Comments of the Schools, Health & Libraries Broadband (SHLB) Coalition**

The Schools, Health & Libraries Broadband (“SHLB”) Coalition<sup>1</sup> appreciates the opportunity to submit these reply comments in response to the Federal Communications Commission’s (FCC’s) 706 Notice of Inquiry<sup>2</sup> on whether “advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”<sup>3</sup> Advanced telecommunications capability is defined 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.”<sup>4</sup>

The SHLB Coalition focuses on the broadband needs of community anchor institutions (CAIs), and our view is that the nation is not making adequate progress in deploying broadband in a reasonable and timely fashion to CAIs. The National Broadband Plan Goal #4 called for

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<sup>1</sup> The SHLB Coalition has over 100 members from across the country including representatives of schools, libraries, health care providers and telehealth networks, state broadband offices, private sector companies, state and national research and education networks, consumer organizations and others. See [www.shlb.org](http://www.shlb.org) for a current list of SHLB Coalition members.

<sup>2</sup> *Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 17-199, Thirteenth Section 706 Report Notice of Inquiry, FCC 17-109 (rel. Aug. 8, 2017) (hereinafter, “NOI”).

<sup>3</sup> 47 U.S.C. § 1302(b).

<sup>4</sup> 47 U.S.C. § 1302(d)(1).

anchor institutions in every community to have gigabit level speeds by the year 2020, a mere 2.2 years from now. Many, and possibly most, anchor institutions still fall well short of that goal.

For instance, rural health clinics do not have the broadband capabilities that they need to keep up with the demand for telehealth services. Tribal health clinics are particularly underserved by broadband networks. In fact, the gap in the bandwidth available to rural health care providers compared to comparable urban providers is widening. Professor Brian Whitacre at Oklahoma State University used data from the National Broadband Map to determine that 59% of non-metro health clinics have less than a 10 Mbps connection, and showed that the bandwidth gap between urban and non-metro health centers has increased substantially in the last few years.<sup>5</sup> A health center should have 50 or 100 Mbps at a minimum.

There has perhaps been more focus on schools' bandwidth than any other type of anchor institution, Nonetheless, EducationSuperHighway (ESH) reports that 78% of school districts do not meet the long-term Internet access benchmark set by the FCC in the E-rate proceeding.<sup>6</sup>

Furthermore, it is impossible for the Commission to declare that broadband is being deployed "in a reasonable and timely fashion" because, by its own admission, it does not have the measurement tools in place to make such a determination. In its proceeding to examine the 477 data collection process the Commission identified several ways that the current collection of data overestimated the actual service available to consumers. Chairman Pai admitted that there

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<sup>5</sup> <http://www.dailyonder.com/rural-healthcare-falls-further-behind-in-broadband-speeds/2016/03/15/12049/>.

<sup>6</sup> The ESH Report says that 97% of schools are now connected to fiber (up from 71%), but we have reason to doubt that this figure accurately describes the connections at school buildings. School districts often report that they have access to fiber based on fiber being connected at the school district and use other technology to connect from the district office to the school building.

are “concerns” about the quality of the data and pledged to consider collecting more granular and standardized data.<sup>7</sup>

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Section 706 requires the Federal Communications Commission (FCC or Commission) to consider the deployment of advanced telecommunications capability to *all* Americans (emphasis added). Many of the commenters in this proceeding focus on trends that affect “most” Americans, yet the statutory language is appropriately focused on “all.” Americans choose to connect to advanced telecommunications capability in many different ways – some through fixed landline connections at home, others through fixed wireless, some through smartphones using mobile services, some through satellite connections, and others through public providers such as the local schools, libraries, healthcare providers and other anchor institutions. The Commission’s job is not to determine whether every American has access to at least one of these technologies, because the pricing for that service or the technological capability of that service may not suit each person’s needs. Indeed, if the Commission’s job was to ensure that only one technology was available, it could find that satellite providers cover the entire U.S. and end the inquiry right there.

The SHLB Coalition urges the Commission to reject the option of measuring the extent of deployment based on the presence of *either* fixed *or* mobile broadband in an area, as suggested in paragraph 9 of the NOI. In fact, the Commission should consider separating out different types of fixed services and different types of mobile services. While mobile and fixed services are clearly separate and distinct types of service, there are also different types of fixed services, and different types of mobile services as well. Each technology has its advantages and

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<sup>7</sup> Statement of Chairman Pai, Aug. 3, 2017, *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10.

disadvantages, and the Commission should be to evaluate each technology separately and determine whether each is being deployed in a reasonable and timely fashion. Thus, for instance, the Commission should explore whether or not mobile voice is being deployed in a reasonable and timely fashion, whether or not mobile data is being deployed in a reasonable and timely manner, and so on for fixed landline, fixed wireless, cable modem, satellite, WiFi, 5G, and other technologies.<sup>8</sup> Only then can the Commission answer the question whether the deployment of advanced telecommunications, as a whole, is serving the needs of **all** Americans.<sup>9</sup>

The NOI seeks comment on the benchmark used to define “advanced telecommunications capability,” and in particular asks if the Commission should retain the existing 25/3 speed benchmark.<sup>10</sup> We are pleased that the Commission opens the door to the idea of expanding beyond the simple 25/3 benchmark. We agree with those commenters (such as Deere & Company and NCTA) that the Commission should examine a variety of speed tiers, rather than focusing solely on the 25/3 standard for wireline services.<sup>11</sup>

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<sup>8</sup> Such detailed, service-by-service analysis is particularly important because the statutory language requires the Commission to take “immediate” action to rectify the lack of deployment. Conducting a service-by-service analysis will enable the Commission to identify where it needs to take such immediate action.

<sup>9</sup> See comments of Microsoft (“For the sake of continued technological development, to enable widescale consumer adoption of cutting edge technology, and to recognize Congress’s ambition for the nation, the Commission must relentlessly promote faster, more ubiquitous fixed and mobile broadband internet connections – and not just one or the other – for all Americans. It is time to raise the bar and challenge ourselves to achieve more for everyone; not settle for the status quo.”)

<sup>10</sup> Para. 12. (“First, we propose to maintain the current speed benchmark of 25 Mbps download and 3 Mbps upload (25 Mbps/3 Mbps) for fixed broadband, and we also seek comment about other potential benchmarks.”)

<sup>11</sup> As stated by Deere & Company, “Simply analyzing the extent of deployment of services at a single speed tier will not give the Commission a sufficiently detailed or nuanced view of market conditions to enable it to act *immediately* in response to a negative determination. The Commission therefore should evaluate deployment of both fixed and mobile services at a variety of speed levels, to obtain a more complete picture of where measures may need to be taken to accelerate deployment of advanced

The 25/3 Mbps benchmark may be appropriate for residential users (although it could be argued that this benchmark should be raised even for residential), but it is inadequate for community anchor institutions, which almost always require much higher bandwidth. The Commission has already adopted the SETDA-proposed benchmarks for schools that propose gigabit-level connectivity. The FCC also adopted benchmarks of 100 Mbps (for libraries serving less than 50,000 people) and 1 Gbps (for libraries serving more than 50,000 people) in the E-rate program. There is no reason to change these school and library benchmarks. The National Broadband Plan called generally for all anchor institutions to have gigabit level connections by the year 2020. To avoid confusion and potential conflict, the Commission should clarify that the 25/3 standard is a *residential* benchmark, and that anchor institutions generally require 100 Mbps to 1 Gigabit level connections (download).

We disagree with the analysis provided by USTelecom that purports to find that broadband is being deployed in a reasonable and timely manner. USTelecom's analysis relies upon the data collected by the Form 477, which the Commission itself admits overstates the actual level of deployment.

Community anchor institutions are a particularly important reference point in examining whether mobile services are a substitute for fixed. The answer is most assuredly "No." As mentioned, anchor institutions need much greater capacity than even the 25/3 benchmark, and mobile technologies cannot come close to providing the gigabit speeds generally needed by anchor institutions. The SHLB Coalition agrees with the comments of Deere & Company that

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telecommunications capability." Comments of Deere & Company, p. 5-6. See also comments of NCTA, p. 2 ("To obtain a fuller picture of today's marketplace, the Commission should broaden its analysis to cover multiple speed thresholds.")

“the Commission should evaluate deployment progress at several different speed tiers, to get a more complete picture of broadband availability.”<sup>12</sup>

Even while anchor institutions are at the forefront of deploying a wide variety of mobile services, including WiFi, TV White spaces, EBS, and satellite, these wireless technologies are all tied back to an underlying high-capacity fixed network, usually fiber but occasionally fixed wireless. Mobile technologies are heavily dependent on high-capacity fixed services and complement each other. Without high-capacity fixed service, there would be no opportunity for anchors to deploy wireless. Wireless is heavily depending on a high-capacity fixed service and is a complement to, not a replacement for, fixed service.

The NOI also seeks comment on incorporating measures of latency and consistency of service, as well as data allowances and other service limitations, into its evaluation of broadband deployment. Second, while measuring speed is a good starting point, the transmission quality is as important as transmission speed. The SHLB Coalition supports the idea of incorporating benchmarks around latency, data consistency, and other quality of service metrics.

The Commission also asks how it can establish a consistent framework for future analysis.<sup>13</sup> The SHLB Coalition applauds the Commission for this suggestion. Rather than making an outcome-based decision, it would be wiser for the Commission to establish a data-driven analysis that is consistent from year to year. Having said that, we also agree with those

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<sup>12</sup> Comments of Deere & Company, p. 4. (“A 25/3 Mbps standard may be the correct standard for residential-centric fixed broadband availability. But different functional use groups may not need that broadband speed—or may need an even higher speed.”)

<sup>13</sup> Para. 23 (“We next seek comment on whether and how we can establish a framework for conducting the annual Section 706 inquiry. We believe our annual inquiry would be aided by establishing a consistent, objective framework using predictable, reliable, and regularly-released public data from sources on which we can rely to evaluate our benchmarks.”)

commenters who suggest that the 706 analysis should be forward-looking and adaptive. We disagree with the suggestion that the definition of “advanced telecommunications services” should be determined by those services that are already subscribed to by a majority of consumers. In fact, we suggest just the opposite. Once a service has become subscribed to by more than a majority of providers, it should no longer be considered “advanced.” The whole purpose of the 706 statutory language is to ensure that the U.S. broadband policies lead us to the future, not to ratify the status quo.

We appreciate the opportunity to file these reply comments, and urge the Commission to consider the bandwidth needs of community anchor institutions that are far higher than the 25/3 standard for residential users.

Sincerely,

A handwritten signature in black ink that reads "John Windhausen, Jr." The signature is written in a cursive style with a large initial 'J' and a period at the end.

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