

August 7, 2019

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: Establishing the Digital Opportunity Data Collection, WC Docket No. 19-195;  
Modernizing the FCC Form 477 Data Program, WC Docket No. 11-10;  
Universal Service Contribution Methodology, WC Docket No. 06-122.**

Dear Ms. Dortch:

Laredo, Texas straddles the U.S.-Mexico border and more than 95% of its population identifies as Hispanic or Latino.<sup>1</sup> It is home to a vibrant community of first and second-generation citizens pursuing the promise of the American Dream. In 2017 Laredo held the dubious distinction of having the worst access to broadband of any U.S. city -- approximately one-third of Laredo's residents do not have access to broadband.<sup>2</sup> Despite its challenges, Laredo is critically important for the U.S. economy and trade. Laredo was the top trade port for the entire U.S. in March 2019; \$20.09 billion in trade came across the city's bridges linking the U.S. with Mexico.<sup>3</sup>

Notwithstanding Laredo's economic importance, Census data shows that more than 30% of Laredoans live in poverty, with the median income of \$41,302.<sup>4</sup> Fewer than one-in-five of residents ages 25 or older hold a bachelor's degree.<sup>5</sup> Such harrowing statistics reflect the state of a community lacking access to the job, academic, and economic resources necessary to have meaningful social mobility in a digital society. Sadly, this problem is not unique to Laredo; it is all too common across the United States.

People of color in the U.S are less likely to have broadband at home,<sup>6</sup> and on average earn lower wages.<sup>7</sup> There are serious disparities rooted within our nation, and significant numbers of Americans lack access to broadband. Without accurate data to understand the full scope of the

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<sup>1</sup> United States Census Bureau, *Quick Facts Laredo city, Texas*, <https://www.census.gov/quickfacts/laredocitytexas> (last visited Jun. 20, 2019).

<sup>2</sup> National Digital Inclusion Alliance, *Worst Connected Cities 2017*, <https://www.digitalinclusion.org/worst-connected-cities-2017/> (last visited Aug. 2, 2019).

<sup>3</sup> Ken Roberts, *Trade War Update: Port Of Los Angeles No Longer Top 'Port' -- It's Laredo*, *Forbes*, May 21, 2019, <https://www.forbes.com/sites/kenroberts/2019/05/21/trade-war-update-port-of-los-angeles-no-longer-top-port-its-laredo/#3952d04b9f0c>.

<sup>4</sup> United States Census Bureau, *Quick Facts Laredo city, Texas*, <https://www.census.gov/quickfacts/laredocitytexas> (last visited Jun. 20, 2019).

<sup>5</sup> *Id.*

<sup>6</sup> See Pew Research Center, *Internet/Broadband Fact Sheet* (Jun. 12, 2019), <https://www.pewinternet.org/fact-sheet/internet-broadband/>.

problem, policymakers will remain unable to address these issues and close the digital divide.<sup>8</sup> For instance, Federal Communications Commission (“FCC” or “Commission”) data claims that broadband is unavailable to 25 million Americans.<sup>9</sup> However, a 2018 Microsoft study found that 162.8 Million Americans do not use the internet at broadband speeds.<sup>10</sup> Similarly, a July 2019 study by NPD Group reported that 31% of U.S. households -- roughly 100 million consumers -- do not have access to an internet connection that meets the FCC’s definition of broadband.<sup>11</sup> The FCC’s broadband maps are inaccurate and do not represent the true state of broadband availability in the U.S.; a fact that has been acknowledged by FCC Commissioners themselves<sup>12</sup> and a bipartisan chorus of members of Congress.<sup>13</sup>

Public Knowledge is strongly in favor of improving the FCC’s collection of broadband data, the type of data collected, and the quality of the broadband maps.

### **FCC broadband data, and the way it is collected, must be improved.**

Accurate, reliable data is vital for informing the government’s efforts to connect Americans. Yet, the data the FCC possesses, and populates its broadband maps with, is neither accurate nor reliable.

Form 477 (“form”) is the document the FCC uses to collect data from broadband providers with the purpose of understanding broadband availability across the U.S.<sup>14</sup> There are critical features of the form that have long misled policymakers and regulators on the state of broadband availability and deployment. First, Form 477 asks broadband providers to provide data on areas

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<sup>7</sup> David Cooper, Economic Policy Institute, *Workers of color are far more likely to be paid poverty-level wages than white workers* (Jun. 21, 2018), <https://www.epi.org/blog/workers-of-color-are-far-more-likely-to-be-paid-poverty-level-wages-than-white-workers/>.

<sup>8</sup> See Carrie Mihalcik, *Microsoft: FCC’s broadband coverage maps are way off*, CNet, Apr. 9, 2019, <https://www.cnet.com/news/microsoft-fccs-broadband-coverage-maps-are-way-off/>.

<sup>9</sup> Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket No. 17-199, *2018 Broadband Deployment Report*, 33 FCC Rcd 1660, 1683 ¶ 53(2018).

<sup>10</sup> John Kahan, Microsoft, *It’s time for a new approach for mapping broadband data to better serve Americans* (Apr. 8, 2019), <https://blogs.microsoft.com/on-the-issues/2019/04/08/its-time-for-a-new-approach-for-mapping-broadband-data-to-better-serve-americans/>.

<sup>11</sup> Press Release, NPD Group, *Thirty-One Percent of U.S. Households Lack a Broadband Connection* (Jul. 25, 2019), [https://www.npd.com/wps/portal/npd/us/news/press-releases/2019/thirty-one-percent-of-u-s--households-lack-a-broadband-connection/?utm\\_source=homepage&utm\\_medium=version-A&utm\\_campaign=Thirty-One%20Percent%20of%20U.S.%20Households%20Lack%20a%20Broadband%20Connection](https://www.npd.com/wps/portal/npd/us/news/press-releases/2019/thirty-one-percent-of-u-s--households-lack-a-broadband-connection/?utm_source=homepage&utm_medium=version-A&utm_campaign=Thirty-One%20Percent%20of%20U.S.%20Households%20Lack%20a%20Broadband%20Connection).

<sup>12</sup> See Jessica Rosenworcel, Commissioner, Federal Communications Commission, Remarks of Commissioner Jessica Rosenworcel at The Pew Charitable Trusts: Better Maps, Better Connectivity: Getting the Data to Close the Broadband Gap (Dec. 11, 2018), <https://docs.fcc.gov/public/attachments/DOC-355485A1.pdf>.

<sup>13</sup> See Letter from Illinois Congressional Delegation, to Ajit Pai, Chairman, Federal Communications Commission (Jun. 17, 2019) <https://www.durbin.senate.gov/imo/media/doc/Illinois%20Delegation%20Letter%20to%20the%20FCC%20Broadband%20Mapping.pdf>.

<sup>14</sup> See Modernizing the FCC Form 477 Data Program, WC Docket No. 11-10, *Report and Order*, 28 FCC Rcd 9887, 9889 ¶ 6 (2013).

they serve by census block.<sup>15</sup> Under the FCC’s rules, if a provider serves at least one residence within the census block, or could provide service “without an extraordinary commitment of resources”, the Commission considers the entire census block served by broadband.<sup>16</sup> This has led to a dramatic over reporting of the number of Americans who actually have access to and use broadband.<sup>17</sup>

Second, data provided through Form 477 is self-reported by broadband providers. Recent experience has demonstrated that the Commission is either unwilling or unable to verify the accuracy of provider submitted coverage data. This most notably occurred earlier this year when Free Press discovered that BarrierFree, a carrier operating in multiple states, massively overstated its deployment numbers.<sup>18</sup> Instead of independently verifying provider data, the FCC was actually prepared to incorporate BarrierFree’s faulty data into the Commission’s annual report on the state of broadband deployment, skewing the FCC’s reporting to make it look like millions of Americans have access to a broadband service that doesn’t actually exist. The FCC only took steps to address this issue once BarrierFree’s over reporting became public.<sup>19</sup>

Third, broadband providers are only required to report their maximum advertised speeds.<sup>20</sup> These speeds differ dramatically from the speeds consumers actually experience. As a result, the data collected by the Commission paints a picture of overstated broadband coverage maps and inflated speeds rather than the reality consumers actually experience.

Moreover, Form 477 does not require internet service providers to report other vital information -- such as area specific pricing data, provider data caps, and network reliability -- that would contribute to a more relevant view of the availability, affordability, and quality of broadband across the U.S. Consequently, policymakers have an inaccurate and misleading perception of access to broadband and quality of broadband service available to most Americans. As a result, efforts by the federal government to close the digital divide are unequal to the actual task at hand, and consumers pay the price.

The FCC’s faulty data collection process has led to the production of broadband maps that overstate broadband availability in many parts of the U.S. These inaccurate maps

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<sup>15</sup> Federal Communications Commission, OMB Control No. 3060-0816, FCC Form 477 Local Telephone Competition and Broadband Reporting Instructions 12, 17 (2016), <https://transition.fcc.gov/form477/477inst.pdf>.

<sup>16</sup> *Id.* at 17, 34.

<sup>17</sup> See Karl Bode, *How Bad Maps are Ruining America’s Broadband*, The Verge, Sep. 24, 2018, <https://www.theverge.com/2018/9/24/17882842/us-internet-broadband-map-isp-fcc-wireless-competition>.

<sup>18</sup> Letter from Free Press to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 18-238 (filed March 5, 2019), <https://ecfsapi.fcc.gov/file/10306056687881/Free%20Press%20706%20Report%20Form%20477%20Erroneous%20Data%20ex%20parte.pdf>.

<sup>19</sup> See Devin Coldewey, *FCC ‘looking into’ reported error throwing broadband deployment numbers off by millions*, TechCrunch, Mar. 2019, <https://techcrunch.com/2019/03/07/fcc-looking-into-reported-error-throwing-broadband-deployment-numbers-off-by-millions/>.

<sup>20</sup> Federal Communications Commission, OMB Control No. 3060-0816, FCC Form 477 Local Telephone Competition and Broadband Reporting Instructions 17 (2016).

have been criticized by legislators all across the U.S.<sup>21</sup> Meanwhile, the FCC and federal agencies continue to rely on this inaccurate data to provide subsidies, target policy interventions, and assess the performance of Universal Service Fund (USF) programs. That is why it is imperative to improve the Commission's data collection and verification process. Failure to do so will continue to lead to misguided policies and would leave stakeholders lost in a morass of misinformation and confusion.

### **Inaccurate broadband maps leave unserved communities on the wrong side of the digital divide.**

Low income, rural, and minority Americans are some of the populations that most lack access to broadband in this country.<sup>22</sup> The high cost of broadband is the leading barrier to broadband adoption.<sup>23</sup>

Additionally, programs under the Universal Service Fund, such as Lifeline, are integral to bridging the digital divide in low-income communities and rely on Form 477 data. In fact, the Commission uses data from Form 477 to both assess the effectiveness of USF programs and to pinpoint the geographic areas that lack broadband access and are most in need of USF support. A stark example of the consequences of the FCC's reliance on inaccurate and misleading broadband deployment data is Ferry County, Washington. Located along the U.S.-Canada border, FCC data shows 100% of Ferry County's residents have access to broadband.<sup>24</sup> On the contrary, according to a study on broadband access and usage by Microsoft, only 2% of the county is actually accessing the internet at broadband speeds.<sup>25</sup> Because of how the FCC uses the data it collects from Form 477 to make determinations about whether areas qualify for USF subsidies for broadband deployment, it is likely that communities like Ferry County -- where the FCC says there is broadband access but residents on the ground know otherwise -- will be overlooked for funds. This would put these communities in a position where they're ineligible for the universal service support that was designed to help them. Moreover, as the FCC weighs the possibility of capping Universal Service Funds,<sup>26</sup> the effectiveness of these universal service

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<sup>21</sup> See e.g., Max Garland, *WV broadband council chairman blasts FCC report, says data isn't correct*, Charleston Gazette-Mail, Feb. 8, 2018, [https://www.wvgazettemail.com/business/wv-broadband-council-chairman-blasts-fcc-report-saysdata-isn/article\\_d98cf35b-e9ac-5f82-93a9-b214770656db.html/](https://www.wvgazettemail.com/business/wv-broadband-council-chairman-blasts-fcc-report-saysdata-isn/article_d98cf35b-e9ac-5f82-93a9-b214770656db.html/).

<sup>22</sup> See Pew Research Center, *Internet/Broadband Fact Sheet* (Jun. 12, 2019), <https://www.pewinternet.org/fact-sheet/internet-broadband/>.

<sup>23</sup> John B. Horrigan and Maeve Duggan, Pew Research Center, *3. Barriers to broadband adoption: Cost is now a substantial challenge for many non-users* (Jun. 12, 2019), <https://www.pewinternet.org/2015/12/21/3-barriers-to-broadband-adoption-cost-is-now-a-substantial-challenge-for-many-non-users/>.

<sup>24</sup> Federal Communications Commission, Fixed Broadband Deployment, Map of Ferry County, WA, [https://broadbandmap.fcc.gov/#/area-summary?version=dec2017&type=county&geoid=53019&tech=acfosw&speed=25\\_3&vlat=48.49596104108542&vlon=-118.17196077210195&vzoom=6.931006340425723](https://broadbandmap.fcc.gov/#/area-summary?version=dec2017&type=county&geoid=53019&tech=acfosw&speed=25_3&vlat=48.49596104108542&vlon=-118.17196077210195&vzoom=6.931006340425723) (last visited Jul. 29, 2019).

<sup>25</sup> John Kahan, Microsoft, *It's time for a new approach for mapping broadband data to better serve Americans* (Apr. 8, 2019), <https://blogs.microsoft.com/on-the-issues/2019/04/08/its-time-for-a-new-approach-for-mapping-broadband-data-to-better-serve-americans/>.

<sup>26</sup> Universal Service Contribution Methodology, WC Docket No. 06-122, *Notice of Proposed Rulemaking*, FCC 19-46 (rel. May 31, 2019).

programs must be assessed with data that reflects reality. The unreliability of the FCC's current data set makes this impossible.

The FCC concluded in 2016 “[a]ccess[] to the [i]nternet has become a prerequisite to full and meaningful participation in society.”<sup>27</sup> For example, lack of connection is particularly detrimental to the Latino community as best illustrated in how the “homework gap” impacts Latino students. With an estimated 70% of teachers nationwide assigning homework that requires internet access,<sup>28</sup> the lack of broadband access at home is an insurmountable hurdle for too many Latino children. Only 52% of Hispanic children, aged 3 to 18, have access to the internet at home.<sup>29</sup> Hence, Latino students face a grueling time in school as many are made to jump through hoops -- such as finding public places with free internet access -- simply to complete their assignments.<sup>30</sup>

A lack of access to broadband is host to many more issues for Americans. Broadband access is vital for entrepreneurs to compete with large corporations. Small and medium sized businesses that are able to access global markets through the internet have a 30% higher survival rate than small and medium sized businesses that are not connected.<sup>31</sup> Small and midsize companies are a vehicle for social mobility for employees and owners, and also revitalize communities by creating jobs and expanding the local economy.

Furthermore, a broadband connection is needed in some areas to access forms for Medicaid access,<sup>32</sup> healthcare information and services,<sup>33</sup> and telehealth and remote patient monitoring services that can reduce the cost of care and make access to care more accessible for those who live in areas with few physicians.<sup>34</sup> An inability to access the internet creates a snowball effect in

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<sup>27</sup> See Lifeline and Link Up Reform and Modernization; Telecommunications Carriers Eligible for Universal Service Support; Connect America Fund, WC Docket Nos. 11-42, 09-197, 10-90, *Third Report and Order, Further Report and Order, and Order on Reconsideration*, 31 FCC Rcd 3962, 3963 ¶ 1 (2016).

<sup>28</sup> Sean Cavanagh, EdWeek Market Brief, *Students' Lack of Home Internet Access Becomes Priority for District Tech Leaders* (Feb. 19, 2016), <https://marketbrief.edweek.org/marketplace-k-12/lack-of-out-of-school-web-connections-major-focus-of-district-tech-leaders/>.

<sup>29</sup> Amir Nasr, New America, *The Perilous Future of Internet Access for Students of Color* (Jul. 12, 2018), <https://www.newamerica.org/weekly/edition-212/perilous-future-internet-access-students-color/>.

<sup>30</sup> See Associated Press, *Why do 3 million students struggle to keep up with homework? They don't have internet*, USA Today, Jun. 10, 2019, <https://www.usatoday.com/story/tech/news/2019/06/10/students-without-internet-struggle-keep-up-homework/1407901001/>.

<sup>31</sup> Robert Pepper, John Garrity, and Connie LaSalle, The World Economic Forum, *The Global Information Technology Report 2016, Cross-Border Data Flows, Digital Innovation, and Economic Growth* 41 (2016), [http://www3.weforum.org/docs/GITR2016/WEF\\_GITR\\_Chapter1.2\\_2016.pdf](http://www3.weforum.org/docs/GITR2016/WEF_GITR_Chapter1.2_2016.pdf).

<sup>32</sup> See Sarah Holder, *Internet Access May Be the Biggest Hurdle to Medicaid coverage for Many Arkansans*, Pacific Standard, Aug. 23, 2018, <https://psmag.com/economics/internet-access-is-a-problem-for-arkansans-on-medicaid>.

<sup>33</sup> See Jane Weaver, *More people search for health online*, NBC News, Jul. 16, 2019, <http://www.nbcnews.com/id/3077086/t/more-people-search-health-online/#.XUMqUZNKgWo>.

<sup>34</sup> See U.S. Government Accountability Office, *GAO-17-365, Telehealth and Remote Patient Monitoring Use in Medicaid and Selected Federal Programs* 1 (2017).



which Americans could be blocked from affordable healthcare, and as a result, experience a significant drop in their health and well being.

**The FCC's broadband data collection method must be revised to collect accurate, granular, and relevant data.**

The Commission's recent action to improve broadband data collection is a step in the right direction towards the collection of more granular data,<sup>35</sup> but there is still much more to be done. The FCC's data collection methods must be revised to effectively expand broadband access to all communities, and this data should be made available to the public as much as practicable.

First, the new data collection method should collect broadband service data at the address level instead of the census block level, providing a more granular, detailed, and accurate view of the country's current broadband connectedness.

Second, the FCC must collect information regarding the actual speeds experienced by customers, so broadband subscribers can compare what they're paying for to what they're actually receiving. This change would help the Commission identify slow, problem areas and would provide greater insight into whether broadband networks are sufficient to meet consumer needs.

Cost is the primary reason individuals with access to broadband do not subscribe.<sup>36</sup> The third update to the FCC's data collection method should be to collect data on the price of broadband, including all fees and charges a consumer would encounter after the expiration of introductory rates and promotions. It is imperative that this Commission use pricing data when both assessing affordability in the broadband market and allocating resources for USF programs.

Fourth, the Commission should also collect information on data caps, network security and resiliency, outages, and service denials. These factors directly impact the quality of broadband available to consumers.

Last, the FCC should direct broadband providers to only report data for the areas they actually serve, not areas they could hypothetically serve. Collecting data on hypothetical, rather than actual service areas leads to overstating broadband coverage and availability and risks leaving unserved areas ineligible for universal service support.<sup>37</sup>

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<sup>35</sup> Establishing the Digital Opportunity Data Collection, Modernizing the FCC Form 477 Data Program, WC Docket Nos. 19-195, 11-10, *Report and Order and Second Further Notice of Proposed Rulemaking*, FCC 19-79 (rel. Aug. 6, 2019) ("*Digital Opportunity Data Collection Order*").

<sup>36</sup> John B. Horrigan and Maeve Duggan, Pew Research Center, *3. Barriers to broadband adoption: Cost is now a substantial challenge for many non-users* (Jun. 12, 2019), <https://www.pewinternet.org/2015/12/21/3-barriers-to-broadband-adoption-cost-is-now-a-substantial-challenge-for-many-non-users/>.

<sup>37</sup> *Digital Opportunity Data Collection Order*, at 3, n.5 (citing Letter from Michael R. Romano, Senior Vice President, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 11-10, at 1 (filed Apr. 30, 2019) ("stating that 'false positives' from Form 477 reporting can lead to the 'denial or withdrawal of federal USF support in areas where support is in fact needed to reach unserved locations, dooming those locations to a lack of service for years to come.'")).

In addition to revising data collection methods, a system must be implemented to ensure that the data broadband providers submit is accurate. First, the FCC needs a robust verification system. Carriers that overstate deployment risk disqualifying truly unserved areas from receiving universal support. Carriers should have some skin in the game if they overstate coverage. Additional verification via crowdsourcing by consumers or challenge systems to dispute data submitted by broadband providers and maps developed by government agencies should also be considered. To incentivize participation and offset costs, these verification mechanisms should require providers that have overstated coverage data to reimburse expenses for those who successfully challenge inaccurate carrier data submissions. Furthermore, we support Commissioner Starks' idea of using more advanced data validation algorithms to help catch error data.<sup>38</sup>

As communications technologies continue to leap forward in the capabilities they provide to users, the Commission must ensure that no one is left behind. The digital divide remains, and it disproportionately affects rural, low-income, and minority Americans. Public Knowledge fervently supports the improvement of the FCC's data collection processes and broadband maps, and the widespread dissemination of broadband access. The approach outlined above would help reduce inaccuracies and provide more useful information for policymakers and consumers.

We urge the Commission to take action to ensure that the nation has an accurate view on the current state of broadband. To bridge the inequalities in our nation we must understand the root causes and do what is necessary.

Respectfully Submitted,

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<sup>38</sup> See Geoffrey Starks, Commissioner, Federal Communications Commission, *The Case for Using Algorithms to Validate Broadband Data*, NextGov, Jul. 1, 2019, <https://www.nextgov.com/ideas/2019/07/case-using-algorithms-validate-broadband-data/158127/>.

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