

Congress of the United States
U.S. House of Representatives
Committee on Small Business
2561 Rayburn House Office Building
Washington, DC 20515-6515

MEMORANDUM

TO: Members, Subcommittee on Contracting and Infrastructure
FROM: Rep. Jared Golden, Chairman
DATE: June 25, 2019
RE: Subcommittee hearing entitled, “Broadband Mapping: Small Carrier Perspectives on a Path Forward” on Tuesday, June 25, 2019 at 10:00 a.m. in Room 2360 of the Rayburn House Office Building

The Committee on Small Business Subcommittee on Contracting and Infrastructure will meet for a hearing titled, “Broadband Mapping: Small Carrier Perspectives on a Path Forward.” The hearing is scheduled to begin at 10:00 A.M. on Tuesday, June 25, 2019 in Room 2360 of the Rayburn House Office Building.

Access to reliable high-speed broadband is a critical issue for small businesses. To ensure all businesses have access to affordable high-speed broadband the federal government has developed grant and loan programs to fund broadband deployment, particularly in rural America where the lack of subscribers and difficult terrain drive up costs.

However, more accurate broadband maps are needed to direct federal funds to small rural carriers who seek to serve the most remote parts of America. Improved broadband maps are needed to build broadband networks out to the millions of Americans that are on the wrong side of the digital divide. In this hearing we will hear from a diverse group of small rural carriers about the current challenges of broadband mapping and explore ways that federal government and private sector can work together to collect more accurate broadband coverage data.

Witnesses include:

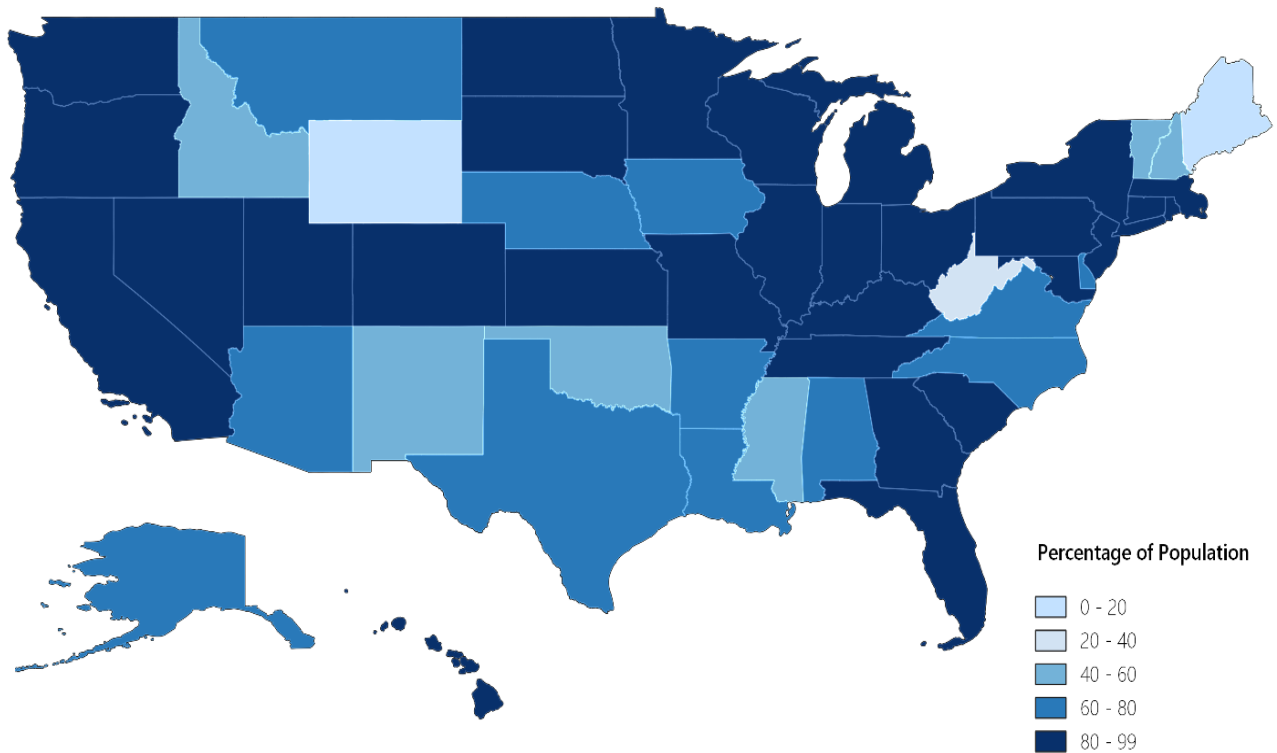
- Mr. Tim Donovan, Senior Vice President, Legislative Affairs, Competitive Carriers Association, Washington, DC
- Ms. Beth Osler, Director, Customer and Industry Relations, Unitel, Inc., Unity, ME; Testifying on behalf of the National Rural Electric Cooperative Association
- Mr. Dan Stelpflug, Director, Operations, Engineering & Technology, Allamakee Clayton Electric Cooperative, Postville, IA; Testifying on behalf of the NTCA – The Rural Broadband Association
- Mr. Jason Hendricks, Chief Regulatory Officer, Range Companies, Forsyth, MT; Testifying on behalf of the WTA – Advocates for Rural Broadband

Background

Advanced telecommunications and information services has transformed American lives. Today, more than 293 million Americans use high-speed broadband to work, learn, and operate their businesses.¹ However, there are still 19 million Americans that do not have access to high-speed broadband.² This disparity is particularly devastating in rural America. Over 26% of Americans in rural areas lack access compared to 1.7% of Americans in urban areas. There are also 45% of Americans who lack access to affordable high-speed broadband service.³ This difference between the haves and the have-nots has become known as the digital divide.⁴

Americans Still Lack Access to Adequate Broadband*

(Percentage of Americans With Access)



Source: FCC 2019 Broadband Deployment Report

Note: *Broadband is defined as fixed internet with download speeds of 25 Mbps or greater and upload speeds of 3 Mbps or greater. Percentage shown is the share of residents within a state without access to at least one provider that meets the outlined definition.

¹ Internet Usage in the United States – Statistics & Facts, STATISTA, June 4, 2018, <https://www.statista.com/topics/2237/internet-usage-in-the-united-states/>.

² Federal Communications Commission, 2019 Broadband Deployment Report, FCC 19-44, May 2019.

³ Joan Eggleston, *Broadband Affordability Report: Nearly Half of U.S. Population Lacks Access to a Low-Price Offering*, TELECOMPETITOR (Apr. 12, 2019) <https://www.telecompetitor.com/broadband-affordability-report-nearly-half-of-u-s-population-lacks-access-to-a-low-price-offering/> (last visited Jun. 18, 2019).

⁴ Lennard G. Kruger & Angele A. Gilroy, RL30719, Cong. Research Serv., *Broadband Internet Access and the Digital Divide: Federal Assistance Programs* (2019).

Lack of access to high-speed broadband has a devastating impact on economic growth and individual success in education, wealth, and access to opportunities.⁵ To bridge this gap, the federal government has launched efforts to fund broadband deployment in areas where the costs are too high, and the return-on-investment is too low to commercially provide affordable service. The FCC's Universal Service Fund and USDA's Rural Utilities Service programs have assisted rural carriers to defray these costs.⁶

From 2011 to 2014, the National Telecommunications and Information Administration (NTIA) also administered the Broadband Technology Opportunities Program and State Broadband Initiative to grant funding for broadband deployment and develop National Broadband Map.⁷ NTIA worked with state community leaders to collect and verify data from broadband carriers using drive-test and field analyses.⁸

When the funding for the State Broadband Initiative was complete in 2014, NTIA stopped updating the National Broadband Map.⁹ In 2018, the FCC decommissioned the outdated National Broadband Map and published a new Fixed Broadband Deployment Map using carrier-provided data from FCC Form 477 submissions.¹⁰ This new map has been widely criticized for lack of verification and overstating broadband coverage. In response, Congress funded a new mapping initiative that has resulted in NTIA announcing a pilot program with eight states, including Maine and Minnesota to improve broadband mapping.¹¹ FCC Chairman Ajit Pai also announced that the FCC will vote on an order to improve broadband mapping in August 2019.¹²

Universal Service and High Costs in Rural America

In the Telecommunications Act of 1934, Congress established the FCC with the goal of universal service as an integral mission.¹³ Recognizing that access to high-speed Internet for all Americans is a top priority, Congress established principles for universal service focusing on increasing access to high-speed broadband to Americans in rural areas in the Telecommunications Act of 1996.¹⁴

⁵ Michael Minges, *Exploring the Relationship Between Broadband and Economic Growth*, WORLD BANK, (2015), <http://pubdocs.worldbank.org/en/391452529895999/WDR16-BP-Exploring-the-Relationship-between-Broadband-and-Economic-Growth-Minges.pdf>.

⁶ Cong. Research Serv., R42524, *Rural Broadband: The Roles of the Rural Utilities Services and Universal Service Fund* (2013) [hereinafter CRS RL42524].

⁷ Anne Neville, *National Broadband Map has Helped Chart Broadband Evolution*, NTIA, (Mar. 23, 2015), <https://www.ntia.doc.gov/blog/2015/national-broadband-map-has-helped-chart-broadband-evolution>.

⁸ *Id.*

⁹ *Id.*

¹⁰ Rich Mansfield, *Decommissioning of the National Broadband Map and its APIs*, (Dec. 7, 2018), <https://www.fcc.gov/news-events/blog/2018/12/07/decommissioning-national-broadband-map-and-its-apis>.

¹¹ Press Release, NTIA, NTIA Unveils National Broadband Map and New Broadband Adoption Survey Results (Feb. 17, 2011).

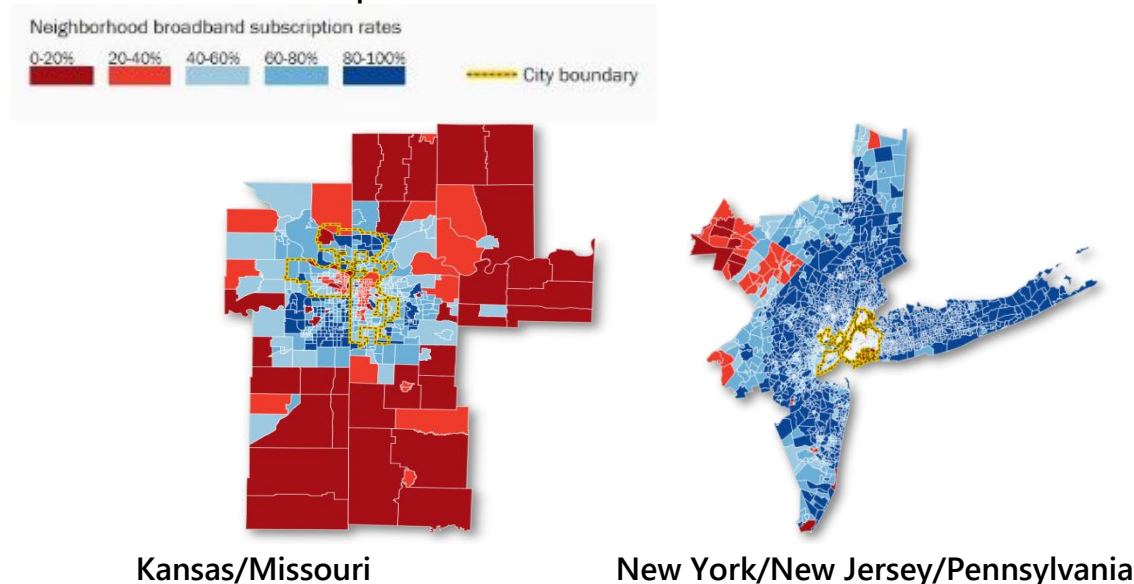
¹² *FCC to Weigh Broadband Mapping Order in August*, BLOOMBERG LAW (Jun. 12, 2019), <https://news.bloomberglaw.com/tech-and-telecom-law/fcc-to-vote-in-august-to-improve-broadband-mapping> (last visited Jun. 18, 2019).

¹³ Communications Act of 1934, Pub. L. No. 73-416, §§ 301-329, 48 Stat. 1064, 1081-92 (1934).

¹⁴ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

To achieve this goal, the FCC transformed the Universal Service Fund to offer grants in exchange for deployment high-speed broadband infrastructure.¹⁵ This shift was necessary to move Universal Service Funds away from maintaining legacy telecommunications networks to building out new broadband infrastructure to places where market forces failed to incentivize deployment. It is inherently more challenging to build broadband networks in rural areas because there are low population densities, rugged terrain, and fewer subscribers with which to spread deployment costs.

Broadband Subscription Rates in Rural Communities vs. Urban Communities



Source: Brookings Institute Analysis of 2011-2015 American Community Survey and FCC Data

Federal Rural Broadband Programs

Because it is difficult to recover enough revenue to deploy high-speed broadband networks in rural areas, private sector carriers have not invested as heavily in rural parts of the country as they have in more densely populated parts of the country. As a result, the public and private sector must work together to achieve universal service. To foster this collaboration, federal programs have been established to incentivize and subsidize broadband infrastructure investment in unserved and underserved rural areas.

- **FCC’s Universal Service Fund:** The Universal Service Fund (USF) is comprised of four programs designed to subsidize telecommunications services for rural and low-income Americans.¹⁶ The USF is funded by contributions from telecommunications providers that must provide a percentage of their interstate and international long-distance revenues. Carriers recover USF contributions directly from their subscribers through a monthly universal service fund fee. With a budget of over \$4.5 billion annually, the High Cost fund is the largest of the four programs and is used to provide grants to rural carriers for the maintenance and development of telecommunications networks in rural America. In 2011, the FCC transformed funding for rural broadband and created the Connect America Fund

¹⁵ *Connect America Fund*, WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd. 17663 (2011) [hereinafter *USF/ICC Transformation Order*].

¹⁶ UNIVERSAL SERVICE, <https://www.fcc.gov/general/universal-service> (last visited Jun. 18, 2019).

which refocused Universal Service Fund dollars to the deployment of high-speed broadband networks through a competitive bidding process.¹⁷

- **USDA’s Rural Utilities Service:** The Rural Utilities Service (RUS) of the Department of Agriculture offers several loan and grant programs available to build or expand broadband networks to rural consumers and businesses. In 2018, a new broadband pilot program was established. The Rural eConnectivity Pilot Program (ReConnect Program) has the intended goal of expanding service to rural areas without sufficient broadband access, which is defined as 10 megabits per second downstream and 1 megabit per second upstream.

Public access to an accurate broadband map is essential to effectively building out high-speed broadband infrastructure to the nation’s unserved populations. Without an accurate map, policy makers will not have the necessary information to allocate federal resources to ensure our entire country has quality broadband services. Despite billions of dollars in private investment in broadband infrastructure, there are still many unserved areas. Inaccurately mapping broadband coverage prevents unserved communities from receiving High Cost program funding. The USDA has also implemented restrictions limiting RUS funding to areas that have been deemed served.¹⁸

The National Broadband Map

In the American Recovery and Reinvestment Act of 2009, the government established \$4.7 billion in grants and loans under the Broadband Technology Opportunities Program to develop and expand broadband services.¹⁹ Within this funding, \$350 million was set aside to develop and maintain the National Broadband Map by 2011.²⁰ In February 2011, NTIA released the first National Broadband Map which was compiled through the efforts of federally funded State Broadband Initiative (formerly called the State Broadband Data and Development Program) in which grantees collected data from 3,400 broadband providers and performed verifications through drive-testing, meetings with community leaders, and field investigations.²¹ The National Broadband Map was updated by NTIA every six months until 2014.²² The map was a vital tool to direct funding from federal programs like the FCC’s Universal Service Fund and the USDA’s Rural Utilities Service to areas that are unserved by a broadband service provider.²³

In 2018, the FCC decommissioned the National Broadband Map and released a new Fixed Broadband Deployment Map using carrier-provided data from FCC Form 477 submissions.²⁴ Public and private sectors have criticized the FCC using Form 477 data because it has resulted in overstated coverage reporting, particularly in rural America. In response, Congress set aside \$7.5 million in appropriations for broadband mapping.²⁵ In 2019, NTIA announced a pilot program with eight states, including Maine, Minnesota, California, and Tennessee to collect broadband to

¹⁷ *USF/ICC Transformation Order*, *supra* at 1123.

¹⁸ CRS RL42524, *supra* note 6.

¹⁹ American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009).

²⁰ *Id.*

²¹ Neville, *supra* note 7.

²² *Id.*

²³ *Id.*

²⁴ Mansfield, *supra* note 10.

²⁵ Consolidated Appropriations Act of 2018, Pub. L. No 115-141, 132 Stat. 348 (2018).

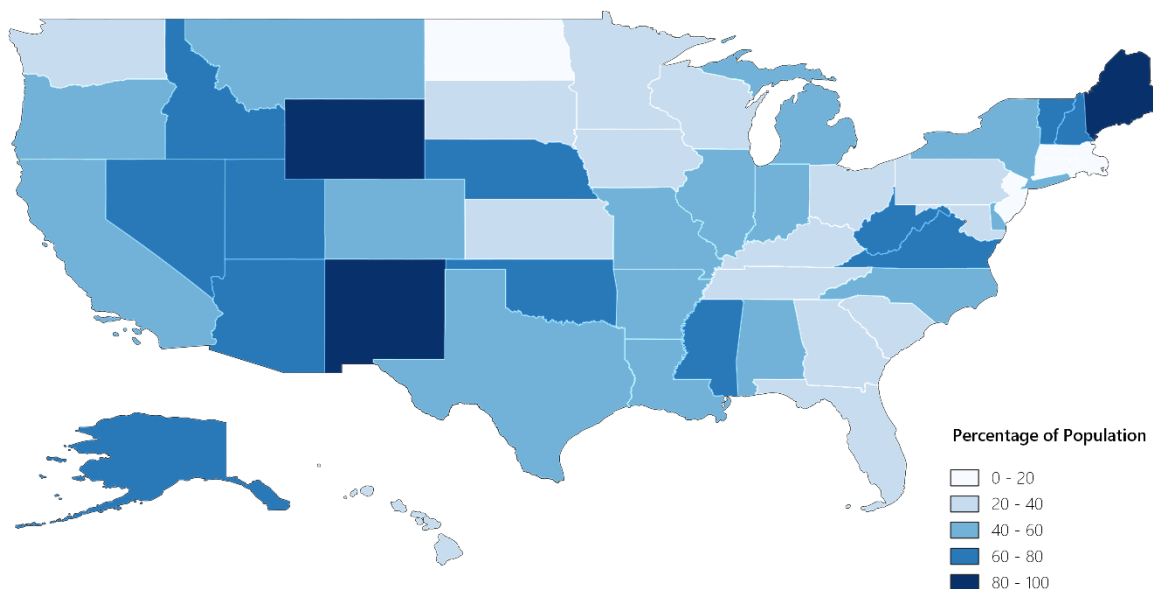
update the National Broadband Map.²⁶ FCC Chairman Pai also announced that the FCC will vote on an order aimed at creating more precise maps in the August 2019 FCC Open Meeting.²⁷

Broadband Access and Small Businesses

Small firms need access to high-speed broadband to grow and survive. From connecting with consumers to fulfilling orders, a broadband connection is essential to day-to-day operations of many main street businesses. However, there is a competitive disadvantage for rural firms that do not have access to the same connectivity as their counterparts in urban areas.

Far Greater Rural Communities Lack Access to Adequate Broadband*

(Percentage of Rural Americans Without Access)



Source: FCC 2019 Broadband Deployment Report

Note: *Broadband is defined as fixed internet with download speeds of 25 Mbps or greater and upload speeds of 3 Mbps or greater. Percentage shown is the share of residents within a state without access to at least one provider that meets the outlined definition.

All sectors of the population must have adequate access to high-speed broadband services. Small rural businesses are impacted as both consumers and as small broadband service providers. As providers, government assistance is needed to secure infrastructure investments. As more communities become served and subscription rates increase, small rural carriers will have a greater return-on-investment. Increased funding for alternative broadband technology will also drive down costs of new types hardware particularly suited for rural deployment.

Across industries, the successful small firms are the ones adopting new technology to become more effective and efficient at meeting customer needs. In fact, 82% percent of consumers expect

²⁶ Press Release, NTIA, NTIA Partners with 8 States on Improvements to Broadband Availability Map (Feb. 12, 2019).

²⁷ *FCC to Weigh Broadband Mapping Order in August*, BLOOMBERG LAW (Jun. 12, 2019), <https://news.bloomberglaw.com/tech-and-telecom-law/fcc-to-vote-in-august-to-improve-broadband-mapping> (last visited Jun. 18, 2019).

immediate responses from businesses which can only be made possible with robust digital connections.²⁸ Small businesses that are digitally connected also earn twice as much revenue per employee, experience revenue four times the revenue growth year over year, and are three times more likely to create jobs.²⁹ However, business owners in rural communities are particularly at risk of falling behind. Over a quarter of small businesses in rural areas are still using very basic digital tools versus their urban counterparts that are at 18 percent.³⁰ Small firms are also more agile than many large companies. In many situations, small firms are able to train employees faster and integrate new products and services more quickly. This fosters innovation and encourages the development of new technologies.

Conclusion

Access to high-speed Internet ensures that business thrive, and communities connect to economic and educational opportunities. Expanding digital infrastructure should be incorporated into any broader infrastructure plan so that the U.S. can achieve its goal of providing broadband access for all U.S. residents. Accurate mapping and efficient funding are critical for high-speed broadband deployment rural America. Small rural carriers that are embedded in remote parts of the U.S. have a very important role to play in closing the digital divide. Congress must work to provide policies that result in broadband maps that accurately reveal the many communities that remain unserved.

²⁸ Michael Guta, 82% of Consumers Expect Immediate Response on Sales or Marketing Questions, SMALL BUSINESS TRENDS (Jul. 2, 2018), <https://smallbiztrends.com/2018/07/real-time-response-to-customers.html> (last visited May 19, 2019).

²⁹ John O'Mahoney & Sara Ma, *Connecting Small Businesses in the US*, DELOITTE ,(2018), <file:///C:/Users/msunn/Downloads/us-tmt-connected-small-businesses-Jan2018.pdf>.

³⁰ *Id.*