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CHAIRWOMAN

STEVE CHABOT, OHIO
RANKING MEMBER

Congress of the United States
U.S. House of Representatives
Committee on Small Business
2361 Rayburn House Office Building
Washington, DC 20515-0515

MEMORANDUM

TO:	Members, Committee on Small Business
FROM:	Nydia M. Velázquez, Chairwoman
DATE:	October 4, 2019
RE:	Full Committee field hearing entitled, "Closing the Digital Divide: Connecting Rural Americans to Reliable Internet Service" on Friday, October 4, 2019 at 1:00 p.m. at Columbia Greene Community College, 4400 Rte 23, Hudson, NY 12534

The Committee on Small Business will meet for a field hearing titled, "Closing the Digital Divide: Connecting Rural Americans to Reliable Internet Service." The hearing is scheduled to begin at 1:00 P.M. on Friday, October 4, 2019 in Columbia Greene Community College, 4400 Rte 23, Hudson, NY 12534.

Access to advanced telecommunications technology has defined modern opportunities for economic development, educational advancement, delivery of lifesaving cutting-edge healthcare, and entrepreneurship. Although universal service has been a critical mission of the FCC since it was established in 1934, the digital divide is an ever-present to threat to equality for rural Americans, low-income communities, and minorities. Today, there are still 19 million Americans that do not have access to a high-speed broadband connection. The lack of access is concentrated in remote parts of the U.S. where difficult terrain and sparse populations make broadband deployment more costly and less lucrative. More investment in targeted funding is critical to connect small businesses and families to the economic opportunities that reliable high-speed broadband provides. In this hearing, Members will have the opportunity to discuss barriers to broadband deployment in rural communities, ways the federal government can accelerate connectivity, and the impact of lack of access on small business and community stakeholders. The hearing will also review the barriers to broadband infrastructure deployment in rural America and ways increased federal investment can help close the digital divide.

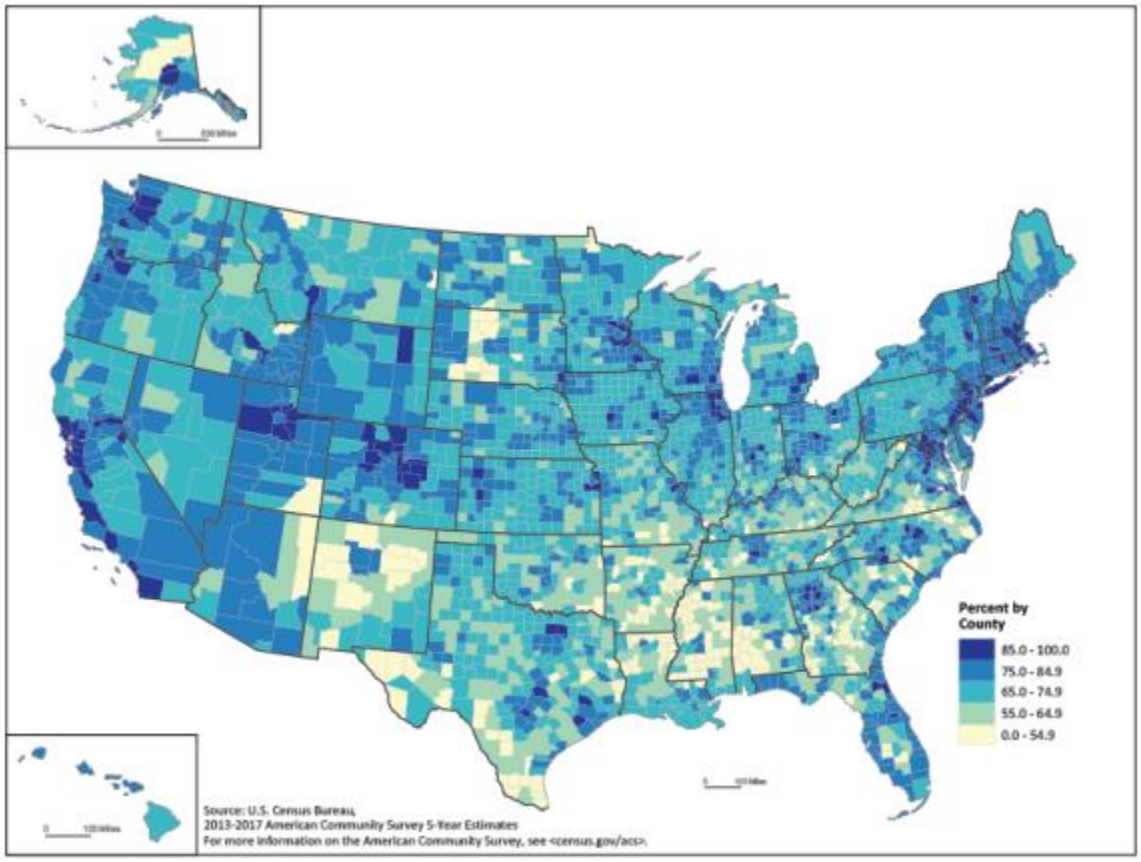
Witnesses include:

- Mr. Tim Johnson, CEO, Otsego Electric Cooperative, Edmeston, NY
- Ms. Shannon Hayes, Owner Sap Bush Hollow Farm Store and Cafè, West Fulton, NY
- Mr. David Berman, Co-Chair, Columbia Connect, Ghent, NY
- Mr. Jason Miller, General Manager, Delhi Telephone Company, Delhi, NY
- Mr. Brian Dunn, Superintendent, Middleburgh Central School District, Middleburgh, NY
- Dr. Cliff Belden, Chief Medical Officer, Columbia Memorial Health, Hudson, NY

Background

High-speed broadband connections have empowered millions of Americans to drastically improve their businesses, education, and health. Today, more than 293 million Americans use high-speed broadband to work, learn, access healthcare, and operate their businesses.[1] Yet, 19 million Americans still lack access to high-speed broadband.[2] This is particularly concentrated in rural America where over 26 percent of Americans lack access compared to 1.7% of Americans in urban areas. This distinct inequality is known as the digital divide and greatly impacts small business in rural America that are struggling to compete with urban counterparts to reach consumers who are increasingly engaging with businesses online.

Percentage of Households with Subscription to Broadband Service



Universal service was a cornerstone of the Communications Act of 1934, the law that established the Federal Communications Commission (FCC).[3] To achieve Universal service, the FCC and federal government have shaped telecommunications regulations and made strategic investments to ensure that telephone services are available at reasonable prices throughout the country. Today, the federal government recognizes that high speed internet is critical telecommunications

[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] Federal Communications Commission, Universal Service, https://www.fcc.gov/general/universal-service (last visited Sep. 3, 2019).

technology. The Telecommunications Act of 1996, discussed further below, expanded the traditional goal of Universal service to include advanced services, such as high-speed internet. [4]

Despite efforts to increase parity for access to digital services, there is still a distinct difference between access in rural America and in urban cities. This divide has become increasingly detrimental as telecommunications technology continues to rapidly evolve. To bridge this gap, the federal government has funded broadband deployment in areas where the business community has determined that the costs are too high, and the return-on-investment is too low. The FCC's Universal Service Fund and USDA's Rural Utilities Service programs have assisted rural carriers to defray these costs.[5] However, inaccurate broadband mapping and lack of coordination with local stakeholders has curbed progress. This year, the FCC and National Telecommunications and Information Administration (NTIA) have launched separate initiatives to improve broadband mapping through crowdsourcing and increased granularity in carrier-provided service data.[6] The FCC has also proposed a new fund called the Rural Digital Opportunities fund that will provide an additional $20.4 billion over the next ten years.[7]

Universal Services Fund

The Telecommunications Act of 1996 required providers of telecom services to contribute to a Federal fund designed to promote the availability of advanced communications services to those in low-income, rural, and high-cost areas at affordable rates.[8] To meet the directive of the 1996 Act, a Universal Service Fund (USF) was established to support four specific telecom programs. The four programs are the:

- High-Cost program provides assistance for telecommunications services in rural areas;
- Lifeline program provides assistance for low-income households;
- Rural Health Care program provides broadband for telemedicine services for rural health care facilities; and
- E-Rate program provides assistance for schools and libraries that serve low-income communities.[9]

The USF is funded by contributions from wireline telephone companies, wireless telephone companies, and interconnected Voice over Internet Protocol (VoIP) providers.[10] These providers contribute a percentage of their interstate and international long-distance revenues.[11] They recover USF contributions directly from their customers in a USF fee on the consumers' monthly service bills.[12] Since 1996, the fund has more than doubled in size, collecting over $11.42 billion in user

[4] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).
[5] Angele A. Gilroy and Lennard G. Kruger, Cong. Research Serv., R42524, Rural Broadband: The Roles of the Rural Utilities Services and Universal Service Fund (2013).
[6] Press Release, NTIA, NTIA Unveils National Broadband Map and New Broadband Adoption Survey Results (Feb. 17, 2011); Press Release, FCC, FCC Establishes New Digital Opportunity Data Collection (Aug. 1, 2019).
[7] *Rural Digital Opportunity Fund, et al*., WC Docket Nos. 19-126, *et al*., Notice of Proposed Rulemaking, 2019 FCC LEXIS 2115 (2019) [hereinafter *Rural Digital Opportunity Fund NPRM*].
[8] Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).
[9] *Universal Service Contribution Methodology*, WC Docket No. 06-122, Notice of Proposed Rulemaking, 34 FCC Rcd. 4143 (2019).
[10] *Id.*
[11] *Id.*
[12] *Id.*

fees in 2018.[13] Over $4.5 billion annually goes directly to a small selection of mostly rural carriers through the High-Cost program.[14]

Broadband Deployment Efforts

Because of the higher costs to build broadband and other digital networks in rural areas and fewer subscribers to defray those costs, it is necessary for the government to fill the gap and serve consumers and small businesses. Without these public investments, small towns across the country will lose residents, small firms, and ultimately the potential for economic growth. In recent years, the U.S. has dedicated resources into programs aimed at making broadband services available to those living in sparsely populated areas.

Connect America Fund

In 2013, the FCC expanded the traditional goal of universal service by establishing the Connect America Fund (CAF) which specifically focuses on increasing access to high speed broadband services for consumers living in rural and insular areas.[15] Through the CAF, USF offers grants in exchange for deployment high-speed broadband infrastructure.[16] 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. Last year, the FCC completed the CAF-Phase II reverse auction which allocated $1.488 billion to deliver high speed broadband to more than 700,000 unserved homes over the next 10 years.[17] Since May, the FCC has completed three funding authorizations, releasing more than half of the allocated funds to providers in just a few months.[18]

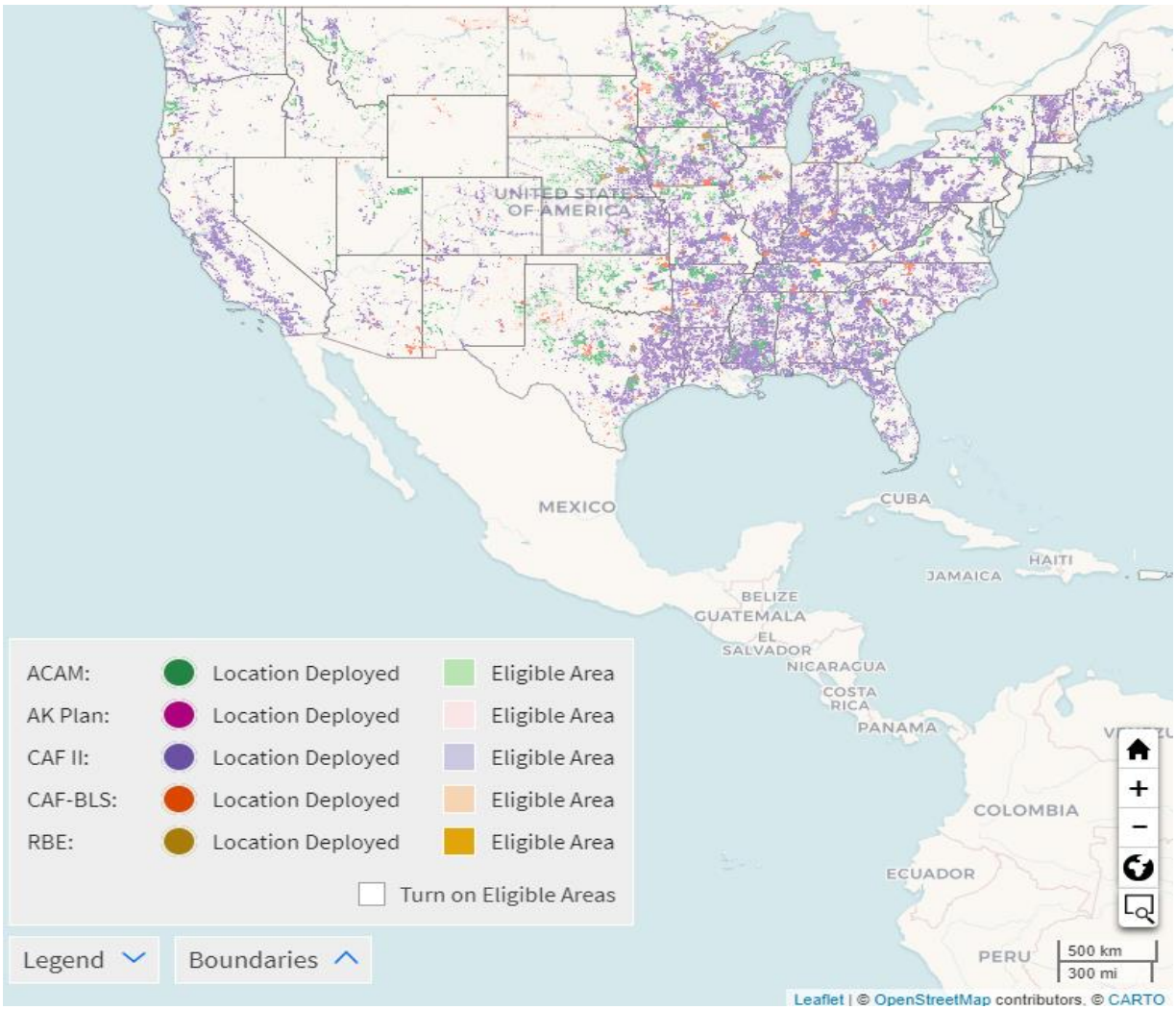
1. New York's New NY Broadband Program

In 2015, the FCC offered ten carriers $1,675,810,041 in CAF II model support in exchange for deployment to certain amount of locations on state-by-state basis.[19] In New York, Fairpoint. Frontier, and Windstream accepted funding, but Verizon declined $28.4 million in annual support.[20] In 2016, the state of New York filed a petition requesting for the FCC to waive its rules and award the funding declined by Verizon to New York to be allocated through its New York broadband program.[21] In January 2017, the FCC entered an order granting the petition and allowed New York state to receive the declined funding to build out to locations designated by the Connect America Fund over a ten-year period as long as the New York broadband program committed to

[13] *Id*.
[14] Lennard G. Kruger and Angele A. Gilroy, Cong. Research Serv., RL30719, Broadband Internet Access and the Digital Divide: Federal Assistance Programs (2019) [hereinafter CRS RL30719].
[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] *Id*.
[17] Press Release, FCC, FCC Authorizes $524 Million in Funding for Rural Broadband From Connect America Fund Auction (Jul. 15, 2019).
[18] *Id*.
[19] Press Release, FCC, Carriers Accept Over $1.5 Billion in Annual Support from Connect America Fund to Expand and Support Broadband for Nearly 7.3 Million Rural Consumers in 45 States and One Territory (Aug. 27, 2015).
[20] *Connect America Fund*, WC Docket No. 10-90 et al., Order, 32 FCC Rcd. 968 (2017).
[21] *Id*.

match the funding.[22] This August the FCC authorized $16.2 million in CAF II support to three carriers to serve 14 counties in upstate New York as a part of this partnership.[23]

Connect America Fund Broadband Deployments



Source: Universal Service Administrative Co. Connect America Fund Broadband Map

Rural Digital Opportunity Fund

At the August 2019 Open Meeting, the FCC issued a notice of proposed rulemaking seeking comment on its proposal to create a new Rural Digital Opportunity Fund, which would provide at least $20.4 billion over 10 years to expand broadband to rural areas.[24] The fund would make more areas eligible for support and raise the speed standards for required buildout.[25] The fund would focus on areas not won in the CAF II auction and not currently receiving high-cost universal fund

[22] *Id.*
[23] Press Release, FCC, FCC Authorizes Nearly $16.2 Million in Funding for Rural Broadband in Upstate New York (Aug. 12, 2019).
[24] *Rural Digital Opportunity Fund NPRM*, *supra* note 7.
[25] *Id.*

support.[26] The FCC proposed a two-phase approach targeting unserved census blocks in Phase I and partially served census block using Digital Opportunity Data Collection Data in Phase II.[27]

FCC Proposes Overall Funding Cap for USF Programs

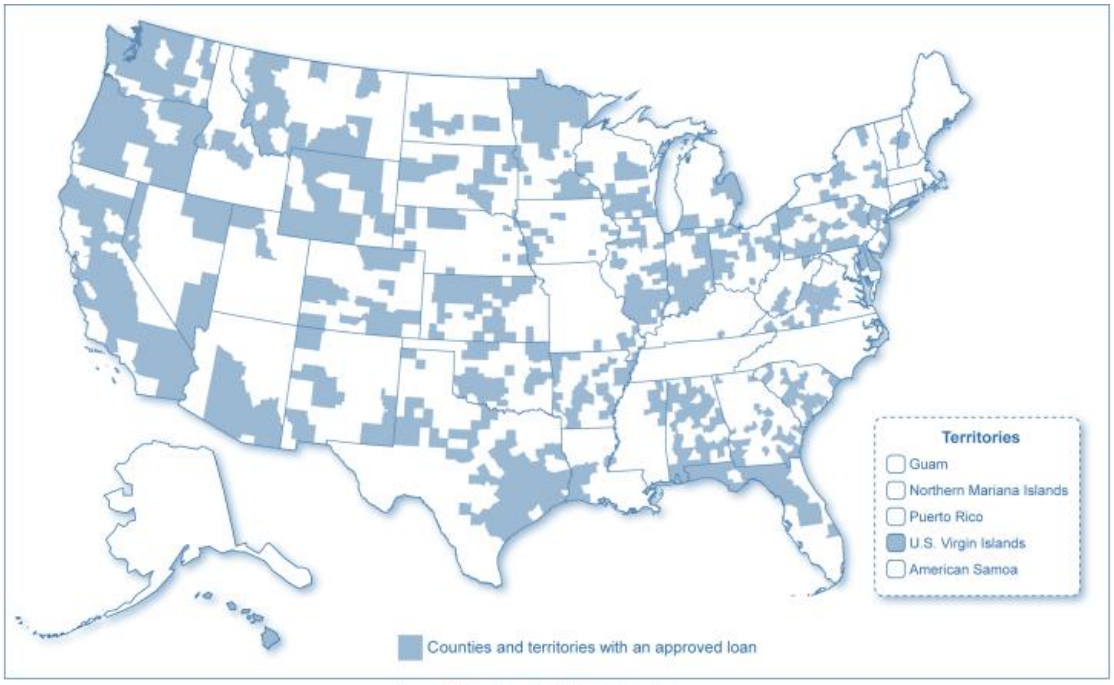
On May 31, 2019, the FCC released a Notice of Proposed Rulemaking seeking comment on a proposal to set an overall budget cap for the USF.[28] The FCC is seeking comments regarding how to evaluate the financial aspects of the four USF programs in a more holistic way, and potentially better achieve Universal Service. The FCC is also seeking comment on how it should adjust the cap over time to ensure it keeps up with inflation.[29] In the Commissions view a cap could limit burden paid by ratepayers, provide regulatory and financial certainty, promote efficiency and fairness. This hearing will allow Members to discuss if a cap is needed and if doing so could impact the funding of the four programs the USF currently supports.

Rural Utilities Service Funding

The U.S. Department of Agriculture also provides grants and loans for service providers in rural areas to deploy broadband networks. The Rural Utilities Service (RUS) of the Department of Agriculture administers several loan and grant programs to build or expand broadband networks to rural consumers and businesses. In fact, in the Consolidated Appropriations Act of 2018, which passed on March 23, 2018, a new broadband pilot program was established.[30] 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.[31]

[26] *Id.*
[27] *Id.*
[28] https://docs.fcc.gov/public/attachments/FCC-19-46A1.pdf
[29] *Id.*
[30] Lennard G. Kruger, Cong. Research Serv., RL33816, Broadband Loan and Grant Programs in the USDA's Rural Utilities Service (2019) [hereinafter CRS RL33816].
[31] *Id.*

Counties with One or More Approved RUS Broadband Loan



Source: GAO analysis of Rural Utilities Service data.

Adequate funding is necessary so that broadband infrastructure exists in rural and underserved areas. Small broadband providers cannot effectively expand and invest in their existing infrastructure without financial support. To close the digital divide, small carriers that serve the most remote parts of the U.S. must use RUS and USF funds to build and maintain their networks.

Broadband Mapping

In the American Recovery and Reinvestment Act of 2009, the government established a $4.7 billion Broadband Technology Opportunities Program to develop and expand broadband services and set aside $350 million to develop and maintain the National Broadband Map by 2011.[32] 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.[33] The National Broadband Map was updated by NTIA every six months until 2014.[34] 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.[35]

[32] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009).
[33] 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.
[34] *Id.*
[35] *Id.*

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.[36] 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 fact, in fall of 2018, the GAO concluded that broadband availability data in the FCC's map does not accurately reflect broadband access.[37] In response, Congress set aside $7.5 million in appropriations for broadband mapping.[38] In 2019, NTIA announced a pilot program with eight states, including Maine, Minnesota, California, and Tennessee to collect broadband to update the National Broadband Map.[39] The FCC also recently initiated a new data collection called the Digital Opportunity Data Collection and improve the FCC's Form 477 requirements to collect more accurate and granular data.[40]

Broadband Access and Small Businesses

Small firms are becoming increasingly dependent on reliable high-speed broadband services to operate and grow their businesses. Regardless of the type of business, the most successful small firms are the ones adopting new technology to become more effective and efficient at meeting customer needs. From connecting with consumers to fulfilling orders, a broadband connection is essential to day-to-day operations of many main street businesses. In fact, 82 percent of consumers expect immediate responses from businesses which can only be made possible with robust digital connections.[41] Small firms 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.[42] Although broadband availability and adoption improved over the last few years for rural businesses, over a quarter of small businesses in rural areas are still using very basic digital tools compared to their urban counterparts.[43]

Small rural businesses are impacted as both consumers and as small internet service providers (ISPs) who provide broadband service. Building and upgrading the broadband infrastructure will make technology more affordable in rural areas, which can facilitate more economic growth. As providers, infrastructure investments ensure more adoption in rural areas, allowing smaller carriers to enter the market and compete. Increased funding for alternative broadband technology will also drive down costs of new types of hardware particularly suited for rural deployment.

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[36] 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.

[37] U.S. GOV'T ACCOUNTABILITY OFF., GAO-19-134T, TRIBAL BROADBAND: FCC'S DATA OVERSTATE ACCESS, AND TRIBES FACE BARRIERS ACCESSING FUNDING (2018).

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

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

[40] *Establishing the Digital Opportunity Data Collection, et al*., WC Docket Nos. 19-195, *et al*., Report and Order and Second Further Notice of Proposed Rulemaking, 2019 FCC LEXIS 2140 (2019).

[41] 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).

[42] 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**.**

[43] *Id*.

Conclusion

Access to reliable high-speed broadband is essential to every American regardless of where they call home. For too many years, rural communities have been subjected to sub-standard service and unreliable connections. Robust and ubiquitous connectivity ensures that communities thrive, and small businesses grow. High-speed broadband connections also impact the healthcare and education families are able to receive where they live. Congress must ensure that policy proposals conducive to addressing gaps in broadband service availability are implemented. Expanding digital infrastructure should be incorporated into a broader infrastructure plan so that the U.S. can achieve its goal of providing broadband access for all U.S. residents. Rural broadband services, healthcare providers, and educators that are embedded in remote parts of the U.S. have a very important role to play in expanding access to advanced telecommunications technology. The federal government must do its part to partner with these communities to close the digital divide.