

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, Subcommittee on Rural Development, Agriculture, Trade, and Entrepreneurship
FROM: Abby Finkenauer, Chairwoman
DATE: October 21, 2019
RE: Subcommittee on Rural Development, Agriculture, Trade, and Entrepreneurship hearing: “Harvesting the Digital Age: Connecting our Communities for a Better Future”

The Committee on Small Business Subcommittee on Rural Development, Agriculture, Trade, and Entrepreneurship will meet for a field hearing titled, “Harvesting the Digital Age: Connecting our Communities for a Better Future.” The hearing is scheduled to begin at 1:00 PM on Monday, October 21, 2019 at the Adams County Agricultural and Natural Resources Center, 670 Old Harrisburg Road, Gettysburg, Pennsylvania 17325.

Historically, the federal government has played an important role in ensuring Americans have reliable and affordable access to communications services, which is referred to as universal service. Since 1996, the definition of universal service has been expanded to include telecommunications services and more advanced services, such as high-speed internet, for all consumers at reliable, reasonable, and affordable rates. However, there are still 19 million Americans that do not have access to high-speed broadband. Areas without access are largely concentrated in rural America where difficult terrain and sparse populations make broadband deployment more costly and less profitable.

Federal support is critical to connect small businesses and families to the economic opportunities that reliable high-speed broadband provides. The hearing will review the barriers to broadband infrastructure deployment in rural America, the importance of broadband to rural communities and businesses, and ways increased federal investment can help close the digital divide. Witnesses include:

- Mr. Brandon W. Carson, Director, Planning & Community Development Division, Southern Alleghenies Planning & Development Commission
- Mr. L. Michael Ross, EDP, President, FCADC
- Mr. Anthony Angelini, Social Studies Teacher, New Oxford Middle School, Conewago Valley School District
- Mr. Brock Widerman, Adams County Farm Bureau President

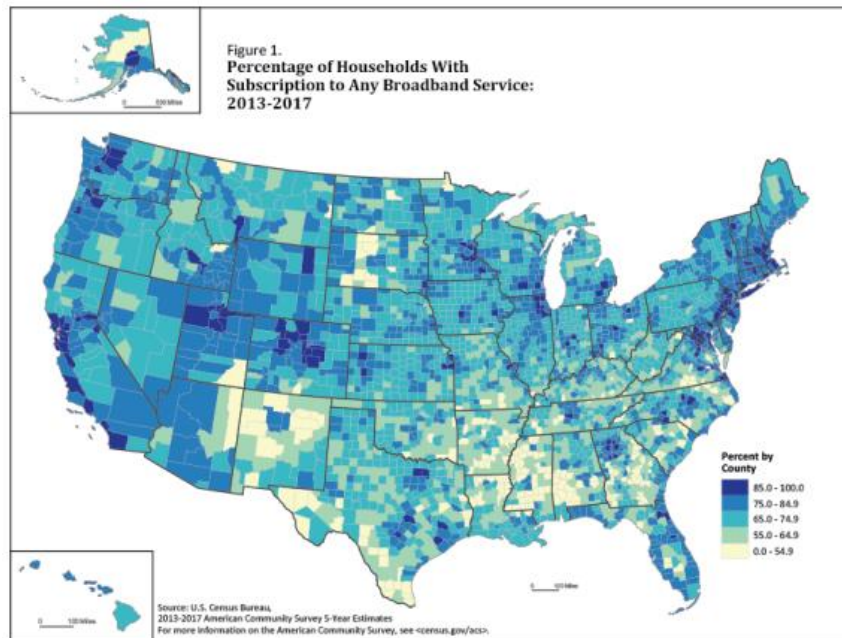
Background

Rural America has seen many changes over the last century that has impacted our culture, society, politics, and policies. In the early 1900s more people lived in rural areas than in cities, yet today only about 19 percent of the population lives in rural areas.¹ Despite 97 percent of the nation being classified as rural, only 17 percent of businesses are in rural areas according to the U.S. Census.² However, rural counties added 650,000 jobs between 2013-2017 according to USDA.³ While often smaller and slower to grow, rural businesses are more likely to have longer survival rates than urban businesses indicating that small business employment remains higher in rural areas of the U.S.

Rural Communities and Internet Access

All communities around the country need affordable and accessible health care, access to government services, as well as educational and business opportunities. For many rural communities, these services are accessed through technologies that require high-speed internet connection and broadband services. According to the Federal Communications Commission, 35% of rural areas and 40% of tribal land lack access to fixed high-speed internet service, compared to only 3 percent of urban Americans.⁴

Percentage of Households with Subscription to Broadband Service



Access to high-speed internet has become increasingly key to economic opportunity and growth. A 2018 National Rural Electrical Cooperative Association (NRECA) study associated broadband connectivity in rural area with improved health care, online learning opportunities, increased

¹ U.S. Census Bureau, American Community Survey: 2011-2015.

² *Id.*

³ U.S. DEP'T. OF AGRICULTURE, ECON. RES. SERV., RURAL AMERICA AT A GLANCE (2018).

⁴ FED. COMM. COMMISSION, 2018 BROADBAND DEPLOYMENT REPORT.

productivity for local businesses, higher housing values, and consumer.⁵ In total, rural households would see an average increase of nearly \$2,000 each in economic benefits and more than \$12 billion total if there was reliable broadband access nationwide.⁶

Although broadband availability and adoption have improved dramatically over the last few years, the U.S. is ranked number 16 in the world in broadband access and number 13 in average broadband speed, according to the Organization for Economic Co-Operation and Development (OECD).⁷ This directly impacts the opportunities for small businesses in rural communities since affordable, reliable high speed internet is the foundation of the digital economy and the gateway for future economic development, while at the same time connecting and supporting communities in across America.

Rural Broadband and Small Businesses

The competitiveness and viability of small businesses are increasingly dependent on access to broadband connectivity. 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.⁸ 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.⁹ This 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.

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. However, the cost of delivering rural broadband access can be unattractive to investors because of the cost of expanding the necessary infrastructure. Among the inherent challenges for rural broadband buildout, especially small carriers, are low population densities, rugged terrain, and a smaller customer base over which to spread deployment costs.

Agriculture and Broadband Access

Access to reliable broadband is important for the growth of American agricultural businesses. Advances in yield maximizing farming tools and techniques require broadband connections for data collection and analysis. Many farmers and ranchers, just like other small firms, rely on

⁵ Russel Tucker, Joseph Goodenbery, and Katherine Loving, Unlocking the Value of Broadband for Electric Cooperative Consumer-Members, National Rural Electric Cooperative Association, Business & Technology Report, Sep. 2018.

⁶ *Id.*

⁷ Nick Corasaniti, *In New York, Bringing Broadband to Everyone by 2018*, NY TIMES, Mar. 20, 2017.

⁸ John O'Mahoney & Sara Ma, Connecting Small Businesses in the US, DELOITTE (2018).

⁹ *Id.*

broadband access to manage their operation. However, according to USDA, 75% of farms have access to the internet.¹⁰

As American farmers struggle with low commodity prices exacerbated by trade wars, the agricultural economy and farm businesses across the U.S. are hurting. Unpredictable weather events such as floods, droughts, and natural disasters are also wreaking havoc across American farmland. These hardships have a cost on farmers and ranchers of all sizes. For example, net farm income dropped 49 percent from 2013-2016, and it has remained depressed ever since.¹¹ According to the latest USDA Census data, only a total of 43% of farms had positive cash farm income,¹² while the median farm income was *negative* \$1,500.¹³ These conditions force many family farmers and ranchers to make tough financial decisions that impact their families, communities, and the entire country.

Federal Broadband Programs

To improve broadband access, 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 Federal Communication Commission (FCC)'s Universal Service Fund (USF) and USDA's Rural Utilities Service (RUS) programs have helped rural carriers to defray these costs.¹⁴ Yet, inaccurate broadband mapping and lack of coordination has impeded 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.¹⁵ 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.¹⁶

USDA Rural Utilities Service

The USDA's RUS operates several loan and grants programs to build or expand broadband networks to rural consumers and businesses. There are four assistance programs within RUS:¹⁷

- *Rural Broadband Access Loan and Loan Guarantee Program*: Funds the costs of construction, improvement, or acquisition of facilities and equipment needed to provide service in eligible rural areas.
- *Community Connect Grand Program*: Funds broadband deployment where it is not yet economically viable for private sector providers to deliver service.

¹⁰ U.S. DEPT. OF AGRICULTURE, NATIONAL AGRICULTURE STATISTICS SERVICE, FARM COMPUTER USAGE AND OWNERSHIP, AUGUST 2019.

¹¹ RANDY SCHNEPF, R40152, CONG. RESEARCH SERV., U.S. FARM INCOME OUTLOOK FOR 2017 (2017).

¹² *Id.*

¹³ U.S. DEPT. OF AGRICULTURE, ECONOMIC RESEARCH SERVICE, 2019 FARM SECTOR INCOME FORECAST (2019).

¹⁴ 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).

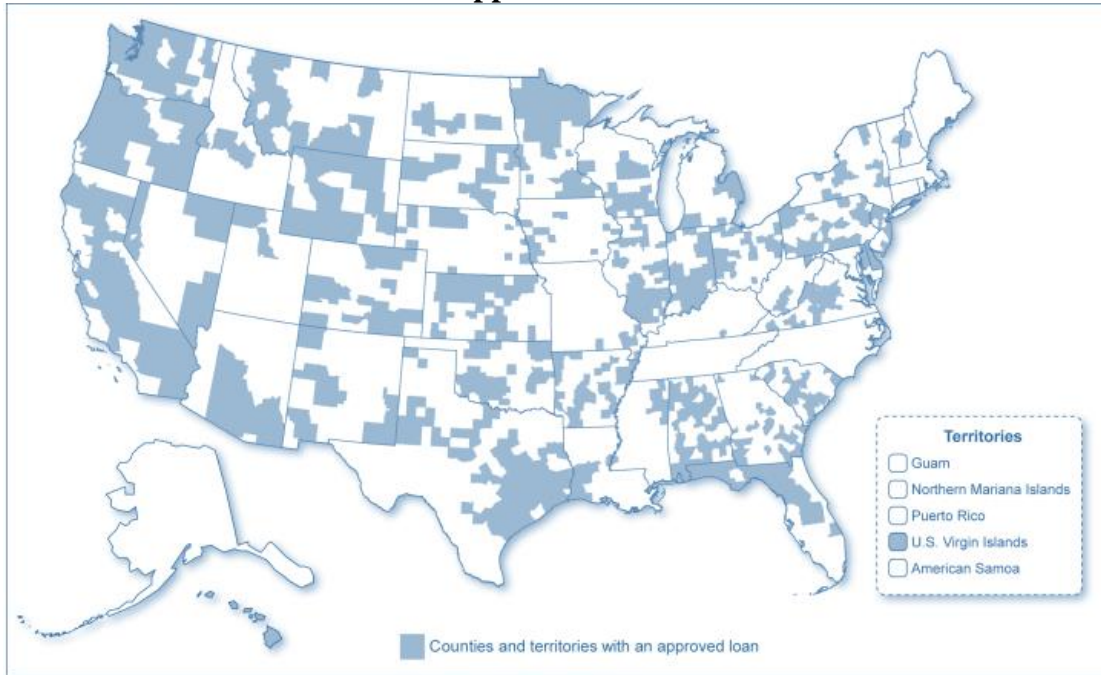
¹⁵ Press Release, NTIA, NTIA Unveils National Broadband Map and New Broadband Adoption Survey Results (Feb. 17, 2011); Press Release, FCC, FCC Establishes New Digital Opportunity Data Collection (Aug. 1, 2019).

¹⁶ *Rural Digital Opportunity Fund, et al.*, WC Docket Nos. 19-126, *et al.*, Notice of Proposed Rulemaking, 2019 FCC LEXIS 2115 (2019).

¹⁷ LENNARD G. HRUGER, RL33816, CONG. RESEARCH SERV., BROADBAND LOAN AND GRANT PROGRAMS IN THE USDA'S RURAL UTILITIES SERVICE (2019).

- *Telecommunications Infrastructure Loan and Loan Guarantee Program*: Funds the construction, maintenance, improvement, and expansion of telephone service and broadband in extremely rural areas with a population of 5,000 or less.
- *Distance Learning and Telemedicine Grants*: Funds equipment and software to rural users of telemedicine and distance learning applications.

Areas with One or More Approved USDA RUS Broadband Loans



Source: GAO analysis of Rural Utilities Service data.

FCC Universal Service Fund

The Universal Service Fund (USF), established by the Telecommunications Act of 1996, focuses on increasing access to evolving services for consumers living in rural areas, and increased access to high-speed Internet in the nation's schools, libraries, and rural health care facilities. The FCC expanded the traditional goal of universal service to include broadband access.

There are four funds within the USF¹⁸:

- *Connect America Fund*: Supports services to areas that are currently unserved by broadband service or where support is needed to extend and support broadband networks.
- *Lifeline Program*: Supports telecommunications companies that in turn offer discounts on telecommunications services to low-income families.
- *Rural Health Care Program*: Supports eligible rural health care providers that qualify for reduced rates for telecommunications services and broadband access that is similar to urban centers.
- *E-rate Program*: Supports eligible schools and libraries that qualify for reduced rates for telecommunications services and necessary Internet connectivity infrastructure.

¹⁸ Broadband Deployment, American Farm Bureau Federation, *available at* <https://www.fb.org/files/broadband.pdf>.

Broadband Mapping

In February 2018 the FCC released their broadband map using carrier-provided data. The map is intended to show where high-speed broadband is available and where increased investment is necessary. The FCC requires Internet Service Providers (ISPs) to identify the areas in which they make available residential or business service, including the maximum speeds offered. However, the GAO concluded in the fall of 2018 that broadband map does not accurately reflect broadband access due to overstated coverage reporting by providers, particularly in rural America.¹⁹

In response, Congress set aside \$7.5 million in appropriations for broadband mapping.²⁰ 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.²¹ 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.²²

Broadband in Iowa

According to the FCC 2018 Broadband Deployment Report, depicted in blue below, 90.5 percent of all Iowans have access to broadband, and every county in Iowa has access to broadband download speed internet (25 megabits per second). However, the data used in the report was found to be inaccurate as it overstates broadband access throughout the state. According to data from M-Lab using over half a million tests, internet users in Iowa have access to broadband speeds only 22% of the time.²³

Broadband in Pennsylvania

Over 800,000 Pennsylvania residents do not have access to broadband connectivity, according to the Federal Communications Commission (FCC).²⁴ The FCC's official broadband maps shows 100% availability across the entire state of Pennsylvania of broadband speeds that exceed 25Mbps. However, data from more than 11 million speed tests from across Pennsylvania in 2018 found that median speeds across most areas of the state did not meet the FCC's criteria to qualify as a broadband connection.²⁵ While there have been numerous efforts in Pennsylvania to bridge the digital divide, unfortunately these efforts have fallen short of official broadband goals.

Conclusion

Connectivity plays an important role in economic growth and opportunity, and Congress must continue its work to address gaps in broadband service. Ensuring that existing programs are effectively implemented and operated is a critical part of ensuring that federal resources reach our

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

²⁰ Consolidated Appropriations Act of 2018, Pub. L. No 115-141, 132 Stat. 348 (2018).

²¹ Press Release, NTIA, NTIA Partners with 8 States on Improvements to Broadband Availability Map (Feb. 12, 2019).

²² *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).

²³ Sam Bloch, *The FCC says all of Iowa has access to broadband internet. Speed tests tell a different story* (Jun. 20, 2018), <https://newfoodeconomy.org/rural-iowa-broadband-data-fcc/>.

²⁴ GAO-19-134T, *supra* note 19.

²⁵ Sascha D. Meinrath, *Broadband Availability and Access in Rural Pennsylvania*, The Center for Rural Pennsylvania, Jun. 2019.

underserved communities. Robust and ubiquitous connectivity will help ensure that communities thrive and small businesses grow. This hearing will allow Members of the Committee to hear ideas about regarding the best way to close the digital divide and support economic development in rural America.