



Written Statement of the Mississippi Farm Bureau ® Federation

**TO THE UNITED STATES SENATE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION**

“BROADBAND MAPPING: CHALLENGES AND SOLUTIONS”

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Presented By:

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Chairman Wicker, Ranking Member Cantwell, and Members of the Committee, my name is Mike McCormick and I am the President of the Mississippi Farm Bureau Federation. I am pleased to be here today to offer testimony on several issues of importance to farmers and ranchers across the country.

On behalf of the nearly two-hundred thousand member families of Farm Bureau in Mississippi and almost six million Farm Bureau member families across the United States, I commend you for your leadership in addressing the critical issues of rural broadband deployment and the challenges with current broadband mapping.

Mississippi Farm Bureau Federation is a statewide organization with members in all 82 counties. One of the most common themes I hear as I travel the state as President of our organization is the lack of true, reliable, and affordable broadband access. Mississippi Farm Bureau supports the Federal Communications Commission's (FCC) minimum broadband speed of 25 Mbps downstream and 3 Mbps upstream and is neutral on the technology used to transmit broadband. Access to broadband is essential for farmers and ranchers to follow commodity markets, utilize precision agriculture technologies, communicate with their customers and, increasingly, for regulatory compliance.

We appreciate the Committee's interest in understanding how farmers and ranchers are impacted by the lack of connectivity and the importance of accurate broadband mapping as the federal government assesses the broadband needs of Americans that live and work in rural areas.

I would like to devote my time today primarily to discussing the agricultural needs and challenges of access to broadband, our experience with the FCC Mobility Fund Phase II Challenge Process, and why accurate broadband mapping is so critical.

Importance of Broadband for U.S. Agriculture:

Broadband is no longer a luxury, it is a necessity. Farmers and ranchers depend on broadband just as they do highways, railways and waterways to ship food, fuel and fiber across the country and around the world. Many of the latest yield maximizing farming techniques require broadband connections for data collection and analysis performed both on the farm and in remote data centers. However, 29 percent of U.S. farms have no access to the Internet according the USDA report, "Farm Computer Usage and Ownership, 2017."

America's farmers and ranchers embrace technology that allows their farming businesses to be more efficient, economical and environmentally friendly. Today's farmers and ranchers are using precision agricultural techniques to make decisions that impact the amount of fertilizer a farmer needs to purchase and apply to the field, the amount of water needed to sustain the crop, and the amount and type of herbicides or pesticides the farmer may need to apply. These are only a few examples of the ways farmers use broadband connectivity to achieve optimal yield, lower environmental impact and maximize profits.

Farmers and ranchers cannot take full advantage of such cutting-edge equipment if they do not have access to reliable, high capacity fixed and mobile broadband in the field or on the ranch. As

technology advances, those connections will become ever more important in a world expected to add more than 2 billion people by 2050. Farmers and ranchers, who already have seen a drastic 50 percent decline in net farm income in the last four years, must have access to fixed and mobile broadband to be more efficient, economical and responsive to environmental needs.

Additionally, agriculture is the backbone of so many small rural communities that dot the landscape across America. These rural communities need access to health care, government services, and educational and business opportunities. For many rural communities, access can only be gained by using broadband services and sophisticated technologies that require high-speed connections. According to the Federal Communications Commission, 30 percent of rural Americans lack access to 25 Mbps/3 Mbps service, compared to only 2 percent of urban Americans. Current and future generations of rural Americans will be left behind their fellow citizens if they are without affordable high-speed broadband service that enables them to tap into health care and educational services, government agencies, and new business opportunities.

Mississippi's Access to Broadband:

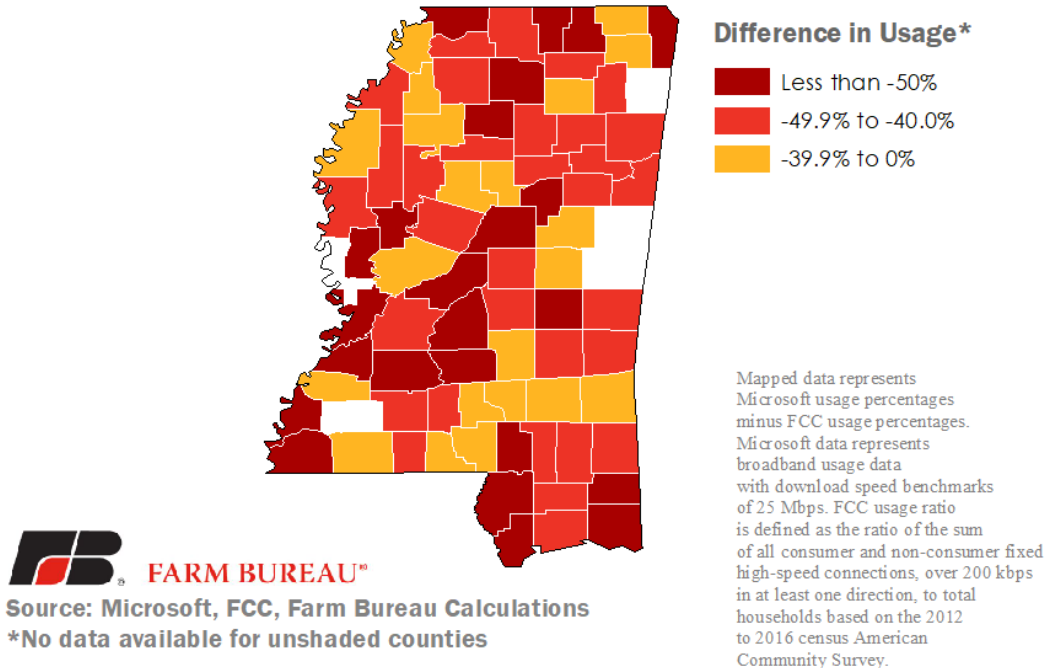
Specific to my home state, Mississippi has the lowest percentage of fixed broadband availability in the U.S., with 2.2 million citizens, or 72 percent of the Mississippi population, with access to the internet at broadband speeds (25 Mbps / 3 Mbps). This data was reported in the FCC's 2018 Broadband Deployment Report.

However, when looking at third-party private research data put together by Microsoft and other groups, they report that only 487,000 citizens, or 16 percent of the Mississippi population, use the internet at broadband speeds. This 56-percentage point difference in broadband availability marks a substantial gap in the perceived number of citizens able to participate in a growing digital economy.

Illustrating these discrepancies further, we created the following map that uses public data from the FCC, Microsoft and American Farm Bureau Federation to calculate the difference between FCC usage percentages compared to actual usage percentages in Mississippi. According to the FCC my home county, Jefferson County, is listed at 41 percent usage while the Microsoft data shows it at 5.6 percent, which is a different of -35 percent.

Mississippi

Microsoft Broadband Usage Minus FCC Usage Ratio



As I pointed out in my opening comments, the topic of rural broadband connectivity is the most common thing I hear about from our membership. With that in mind, I feel very confident disputing the FCC report which indicates that 72 percent of our state’s population has access to the internet at broadband speeds.

Mississippi’s Engagement in the FCC Mobility Fund Phase II Challenge Process:

In February 2018, the FCC released a map showing areas across the United States presumed eligible to receive support for the deployment of 4G LTE service as part of its Mobility Fund Phase II (MF-II) auction. MF-II is critically important to supporting mobile voice and broadband coverage, incentivizing the deployment of mobile wireless service through a reverse auction, and ensuring that 4G LTE service is preserved and advanced in those areas of the country that lack unsubsidized service. This federal funding is vital for providing rural telecom carriers support to bring about service to rural and underserved areas. The new Mobility Fund program will succeed only if it is based on an accurate understanding of current mobile broadband coverage. What I know from my organization’s in-depth review of the FCC’s existing coverage maps is that they are clearly wrong. In essence, the FCC’s map showed that Mississippi was 98% covered with mobile broadband services, which Farm Bureau clearly disputes.

After lengthy discussions with the FCC, members and staff of Farm Bureaus in other states, and our national organization; we decided to formally file a waiver request to be allowed to challenge the FCC in the accuracy of these maps. In August of 2018, Mississippi Farm Bureau ® submitted

and was granted a waiver by the FCC to participate in the FCC Mobility Fund Phase II challenge process. As our staff began to review mapping data and the technical requirements to run multiple speed tests applications by carrier and device in each census block, we quickly determined that our organization did not have the adequate resources or staff needed to execute a valid challenge through this process, nor would the average consumer have this ability either.

Mississippi Farm Bureau Federation later began discussions with the Mississippi Public Service Commission (PSC). The PSC has an ongoing program that allows citizens to submit mobile speed test data to the Commission in areas that lack mobile 4G service. At that point, we then collaborated with the Mississippi Public Service Commission (PSC) to direct our membership to report mobile broadband speed tests through the PSC's program in hopes that our members could be a part of a successful effort to challenge the maps.

In November of 2018, the PSC submitted more than 8,400 individual consumer speed tests data points to the FCC. Of all these data points, only 3,000 were reviewed and assessed as valid by FCC staff to be submitted as a successful challenge.

Ultimately, through our efforts and the efforts of the Mississippi Public Service Commission, not a single challenge in any census block on the map in Mississippi was successful. This minimal level of success was largely due to the overall complexities of the challenge process itself and the complications that prevent anyone--especially the average consumer to successfully participating in this process. We firmly believe that the FCC must do more to establish an accurate understanding of mobile broadband coverage before moving forward with the Mobility Fund II program.

Importance of Broadband Mapping to Agriculture:

As efforts to improve access to broadband in rural areas continue, the ability of the FCC and all other relevant agencies to utilize accurate coverage maps is the highest priority. With limited funding to address an estimated \$45-65 billion issue and an overabundance of need, more granular and accurate maps are critical to successfully target and distribute federal broadband programs. Currently, the FCC's National Broadband Map relies on census block data to determine which areas are served, underserved, and unserved across the country. Census blocks are too large in rural and remote areas to accurately target broadband investments. If even one household in a given census block is reported by a provider as being served, then the entire block is considered served and is therefore likely excluded from eligibility to receive federal funds for rural broadband buildout. There are more than 3,200 census blocks across the country that are larger than the District of Columbia, and five that are larger than the State of Connecticut. In fact, census blocks larger than two square miles comprise more than 64 percent of the U.S. land area, which means that every rural area is impacted by this problem in some way.

Farm Bureau recommends that more granular data be used to determine areas of coverage. Gathering and, equally as important, verifying the data to accurately target and distribute the funding is critical to the success of broadband deployment for rural America. Adjustments in the data collection matrix to develop the mapping will assist in identifying areas in rural America where the digital divide is the widest.

Furthermore, we have been a long-time advocate for the inclusion of cropland and ranchland as a metric of broadband access. Precision agricultural equipment requires reliable, high capacity fixed and mobile broadband connections for data collection and analysis performed both on the farm and in remote data centers. As more precision equipment becomes available, farmers cannot take full advantage of that equipment if they do not have access to reliable, high capacity broadband in the field or on the farm.

Chairman Wicker, I want to thank you for championing this effort. You, Senator Manchin and 24 other Senators, including eight of your fellow committee members¹, wrote a bipartisan letter on July 11, 2016 to then FCC Chairman Tom Wheeler supporting the concept of cropland and ranchland as a broadband metric. The letter reads:

[c]roplands and ranch lands have lagged behind in adequate mobile coverage, even as demand for coverage has grown. To address this gap, we urge you to consider a metric of broadband access in croplands (and farm buildings), in addition to road miles, to identify these areas of greatest need. "Cropland" coverage can be assessed using USDA data for crop operations, the US Geological Survey's Land Use classification, or other databases.²

Precision Agriculture Connectivity Act & 2018 Farm Bill:

With this need in mind, I commend you Chairman Wicker and Senator Klobuchar for your work to see that the provisions of the Precision Agriculture Connectivity Act were included in the 2018 Farm Bill. This legislation will direct the Federal Communication Commission (FCC) and U.S. Department of Agriculture to work together to identify gaps in farm and ranchlands mobile broadband coverage. Then, policies will be recommended to fill 90-percent of those identified gaps by 2025. The legislation is an important step in changing the way the FCC and other agencies think about rural broadband as we strive to build the information infrastructure that modern production agriculture increasingly needs to be successful. Farm Bureau looks forward to hearing how the FCC and USDA will accept nominations and will participate in the nomination process.

Conclusion:

On behalf of the Mississippi Farm Bureau ® Federation, I appreciate the opportunity to provide comments on the needs of the agricultural industry in the rural broadband conversation. I appreciate the Committee's continued commitment to making sure that accurate broadband maps are developed so that farmers and other rural communities are not left out of the digital economy. I look forward to continuing to work with the Committee in advancing the shared goals to which I have highlighted here today.

¹ Sens. Tammy Baldwin, D-Wis., Roy Blunt, R-Mo., Shelley Moore Capito, R-W.Va., Deb Fischer, R-Neb., Ron Johnson, R-Wis., Amy Klobuchar, D-Minn., Jerry Moran, R-Kan., Gary Peters, D-Mich.

² Letter to Chairman Tom Wheeler, FCC, from United States Senators Wicker, Manchin, et. al. July 11, 2016.