ISSUE BRIEF

Broadband Internet Access in Wyoming

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by

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PURPOSE

The purpose of this issue brief is to summarize existing federal and state broadband programs, specifically looking at the Federal Communications Commission's (FCC) new Rural Digital Opportunity Fund and how it might intersect with Wyoming's current efforts to improve broadband internet access in rural areas throughout the State.

INTRODUCTION

Broadband refers to high-speed internet access that can be provided to homes and businesses using various technologies, such as a digital subscriber line, cable modem, fiber optic cable, fixed wireless access, satellite, or broadband over power lines.[1] The term broadband refers to internet access that is always on in fixed locations and does not refer to mobile connections. Wyoming faces a number of challenges regarding broadband access, including low population density and long distances between population centers. The infrastructure costs to provide broadband services to distant, small communities are often prohibitive.

The Broadband Advisory Council implemented the Wyoming Broadband Survey Results Dashboard in late 2018, and it currently indicates that of approximately 2,700 respondents to date, 73% have access to broadband services and 27% do not.[2] Of those Wyoming communities with broadband service, many lack access to multiple providers and therefore do not benefit from the competitiveness of the marketplace to help lower costs and provide service options.[3] The FCC reports that 93.4% of communities nationwide have access to three or more broadband providers, while only 86.7% of Wyoming communities do. Wyoming communities with access to an average of four or more broadband providers include Casper, Cheyenne, Cody, Gillette, Jackson, Laramie, Rock Springs, Sheridan, and Torrington.[4] While these communities have access to an average of four or more broadband providers, it is important to note that some areas within these communities may have more limited provider access depending on technology availability. Areas with limited access include Big Horn, Crook, Goshen, Niobrara, and Platte counties. There are approximately 116,000 people in Wyoming who have access to only one wired broadband provider. See **Appendix A** for maps showing

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[1] https://www.fcc.gov/general/types-broadband-connections
[2] https://www.wyobbmap.org/
[3] https://broadbandnow.com/Wyoming
[4] https://broadbandmap.fcc.gov/#/

the current broadband infrastructure in Wyoming, including available broadband speeds and number of providers.

FEDERAL BROADBAND PROGRAMS

Two federal agencies operate broadband internet development programs: the FCC and the U.S. Department of Agriculture (USDA). Broadband providers more commonly complete federal funding applications to expand into a community service area, rather than the local communities themselves. While local communities are eligible for program funding, municipal or county administrators often cannot afford the consultant services needed to address application and program requirements. [5]

FCC PROGRAMS

The FCC was created by the Communications Act of 1934. The Act granted the FCC the authority to regulate telephone, telegraph, and radio communications and required the agency to provide these services to all citizens of the United States.[6] The Telecommunications Act of 1996 modified the FCC's responsibility to provide both telecommunications and advanced services, such as high-speed internet or broadband services, for citizens.[7] The FCC operates a number of broadband and telecommunications programs: the Universal Service Fund, the Connect America Fund, and the Rural Digital Opportunity Fund. These programs aim to increase education opportunities in rural areas by supporting individualized technology-based learning, as well as online community college, university, professional certification, continuing education, and senior education classes. These programs can also enhance telehealth opportunities by providing nonemergency medical treatment technologies that can improve care quality, resource use, and prevent costly and unnecessary interventions. Finally, the FCC's programs promote individual and private business investments and encourage economic diversification through the online job market.

UNIVERSAL SERVICE FUND

The FCC developed the Universal Service Fund in 1997 to comply with the Telecommunications Act of 1996. Universal service was one of the core mandates of the 1996 legislation, which requires the FCC to make telecommunications and broadband services available nationwide.[8] Today, the FCC has established a number of programs under the Universal Service Fund, including the Connect America Fund, the Lifeline Program, the Schools and Libraries Program, and the Rural Health Care Program.[9]

The Rural Health Care Program provides funding to eligible health care providers for telecommunications and broadband services necessary for delivering essential health care services.[10] This program is comprised of two subprograms, the Health Care Connect Fund Program and the Telecommunications Program. The FCC established the Health Care Connect Fund Program in 2012 to provide support for high-capacity broadband connectivity to eligible health care providers. The FCC launched the Telecommunications Program in 1997 and the funding for the program is limited

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[5] Personal communication with Ryan Kudera, Broadband Manager.
[6] https://transition.fcc.gov/Reports/1934new.pdf
[7] https://www.fcc.gov/general/universal-service
[8] https://www.fcc.gov/general/universal-service
[9] https://www.fcc.gov/general/universal-service
[10] https://www.fcc.gov/general/rural-health-care-program

to $400 million per federal funding year. The purpose of the Telecommunications Program is to subsize the difference between urban and rural rates for telecommunications services. The FCC released the Rural Health Care Program Funding Cap Order on June 25, 2018, which created provisions to promote telemedicine in rural areas by providing a sufficient source of universal service funding. Currently the Rural Health Care Program has established a process to carry-forward unused funds from past funding years to use in future funding years.[11]

CONNECT AMERICA FUND

The FCC developed the Connect America Fund in 2014 to help "bridge the digital divide" by providing broadband access to low-income and rural areas.[12] Approximately $30 million in Connect America grants have been awarded to Wyoming broadband providers. (See below.)

RURAL DIGITAL OPPORTUNITY FUND

In October 2020, the FCC will launch the Rural Digital Opportunity Fund to replace the Connect America Fund. The new program will be divided into two phases and will ultimately disburse $20.4 billion to areas that are "wholly unserved."[13] The FCC defines these areas as census blocks or populations who lack access to 25 Mbps download and 3 Mbps upload speeds.

The first phase of the Rural Digital Opportunity Program will provide $16 billion to unserved areas by conducting a reverse auction, whereby broadband providers apply to receive funding support from the FCC. According to a January 14, 2020, FCC news release, Wyoming has 21,000 bid-eligible locations for the first phase. The second phase will distribute the remaining $4.4 billion and include those areas that are partially served as well as any areas that did not receive winning bids during the first phase.

The FCC Notice of Proposed Rulemaking states those census blocks that have been awarded funding through the USDA or through other federal or state broadband subsidy programs will be excluded. The FCC's ultimate goal is to ensure universal service support is awarded in an efficient and cost-effective way and does not go toward overbuilding areas that already have broadband service.

USDA PROGRAM

RECONNECT

In 2018, the USDA authorized the ReConnect Program to build infrastructure for broadband internet services in rural areas. The purpose of this ongoing program is to encourage and generate private sector investment to deploy broadband infrastructure to rural customers, such as homes, health care facilities, schools, libraries, farms, and ranches. In particular, this program supports various "Next Generation Precision Agriculture" technologies, including yield monitoring, precision seeding, smart irrigation, precision feeding, and general animal health monitoring.[14] These technologies ultimately

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[11] https://www.fcc.gov/general/rural-health-care-program
[12] https://www.fcc.gov/about-fcc/fcc-initiatives/bridging-digital-divide-all-americans
[13] https://www.fcc.gov/implementing-rural-digital-opportunity-fund-rdof-auction
[14] https://www.usda.gov/sites/default/files/documents/case-for-rural-broadband.pdf

allow farmers and ranchers to improve yields, reduce costs, and increase their labor efficiency and revenues.

USDA divided the ReConnect program into two funding rounds. Wyoming received a grant during the first round of funding on November 26, 2019. The grant will provide $4.79 million in broadband infrastructure for Sweetwater County and will further allow service providers to deploy a broadband network capable of transmitting data at up to one gigabit per second. In addition, the grant will support 312 households, four educational facilities, and one community facility.[15] USDA accepted applications for its second round of funding through March 16, 2020.

BROADBAND IN WYOMING

LEGISLATIVE DISCUSSIONS AND ACTIONS

In 2018, the Wyoming Legislature enacted SEA No. 0036 to provide $10 million to the Wyoming Business Council to establish a broadband infrastructure grant fund and $350,000 to create a broadband manager position. The law further established a Broadband Advisory Council to allow for greater representation from areas around the State and to oversee the Wyoming Business Council's broadband efforts.

In 2019, the Legislature enacted two broadband-related bills.

HEA NO. 0059 TAXATION OF BROADBAND INTERNET INFRASTRUCTURE

This bill exempts the sales of equipment used to provide broadband service in unserved areas from state sales and use taxes and requires an annual report from the Wyoming Business Council and Wyoming Department of Revenue regarding the revenue and jobs impact of this bill until 2024.

HEA NO. 0068 BROADBAND DEVELOPMENT PROGRAM AMENDMENTS

This bill modifies the Wyoming Business Council Broadband Development Program definition of an unserved area to match the FCC Rural Digital Opportunity Fund definition (an area with speeds less than 25 Mbps download and 3 Mbps upload). The bill also extends to July 2022 the Wyoming Business Council's rulemaking authority to further modify this definition by increasing these maximum speeds.

On August 29, 2019, Wyoming Business Council CEO Shawn Reese provided an update to the Joint Minerals, Business, and Economic Development Committee regarding the Wyoming Business Council community and rural development broadband initiatives.

WYOMING BROADBAND DEVELOPMENT PROGRAM ACTIVITIES

The Wyoming Business Council hired their first broadband manager and appointed eleven members to the Broadband Advisory Council in June of 2018.[16] The Advisory Council is comprised of eleven

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[15] https://www.usda.gov/reconnect/awardees
[16] https://www.wyomingbusiness.org/news/wyoming-business-council-hires-broadband-/10993

members from various backgrounds, including five members representing different internet providers, one member from Eastern Wyoming College, one member from the USDA, one member from AARP Wyoming, one member from the Cheyenne Regional Medical Center, one city administrator from Powell, and the State Chief Information Officer. There are also two legislative liaisons for the Broadband Advisory Council.

The Broadband Advisory Council met regularly throughout 2018 and 2019 and primarily focused on implementing the state broadband enhancement plan. The Broadband Advisory Council officially adopted the broadband enhancement plan on August 31, 2018, and updated the plan on July 1, 2019.[17] The plan outlines the Council's five key missions, which include developing a mapping strategy, leveraging public-private partnerships, removing barriers to deployment, increasing access to funding, and integrating emerging technologies.[18]

The Broadband Advisory Council developed a mapping strategy in late 2018 to provide accurate data on broadband internet speed in the State and to help the Broadband Advisory Council deliver more reliable broadband access statewide.[19] The Broadband Advisory Council and the University of Wyoming GIS department partnered to create the Wyoming Broadband Survey Results Dashboard. Currently, voluntary user data is provided by completing a broadband speed test which subsequently displays results on the map's website. The Broadband Advisory Council has plans to eventually incorporate data from providers located in the State to improve the overall accuracy of the information presented by the map.

Up to this point, the Broadband Advisory Council has concentrated their efforts on enhancing broadband services in telehealth and tele-education. The Broadband Advisory Council aims to ensure that all health care facilities in Wyoming have reliable and affordable broadband service.[20] The Broadband Advisory Council updated the broadband enhancement plan to increase telehealth services throughout the State and involved Wyoming AARP as a stakeholder in the effort to improve telehealth. The Broadband Advisory Council also focused on supporting online education opportunities through the University of Wyoming, the State's community colleges, as well as increasing access for home-schooling in remote areas.

Finally, the Wyoming Business Council Broadband Development Program assisted in acquiring approximately $30 million in Connect America Funds from the FCC.[21] These funds were awarded to several providers in the state including Northern Arapaho Industries, Mountain West, Viasat, and Inventive Wireless of Nebraska, which serves Goshen County.

BROADBAND MOVING FORWARD

In January 2020, the Wyoming Business Council hired a new broadband manager whose goal is to promote the broadband enhancement program by educating local communities about federal and state broadband funding. In general, Wyoming broadband providers are aware of federal FCC and USDA

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[17] https://wyomingbusiness.org/news/state-updates-broadband-plan-/11494
[18] https://www.wyomingbusiness.org/news/advisory-council-officially-adopts-/11070
[19] https://www.wyomingbusiness.org/broadband
[20] https://wyomingbusiness.org/news/state-updates-broadband-plan-/11494
[21] https://www.wyomingbusiness.org/Uploads/DocumentLibrary/2019%20Legislative%20Benchmark%205.5x8.5.pdf

funding opportunities, but local community leaders and administrators often do not have the knowledge or resources to apply for federal funding. The broadband manager plans to work with providers and potential grant applicants to inform and support their efforts in accessing state and federal funding opportunities.

To date, the Broadband Advisory Council has not made any Broadband Development grant awards with the funding provided by SEA 0036 as the program's application process has not yet been fully established. There has been considerable interest in the grant program and the Broadband Advisory Council updated the grant application process in April 2020. The Broadband Advisory Council also intends to make the updated applications available prior to the Fall of 2020 and will notify local communities and providers at that time.

The Broadband Advisory Council is also working with the Wyoming Congressional delegation to open conversations regarding FCC Rural Digital Opportunity Fund provisions. One of the provisions of concern is the FCC's announcement that populations or census blocks who have been awarded prior funding through the USDA or through other federal or state broadband subsidy programs will be excluded from receiving Rural Digital Opportunity Funds. The Broadband Advisory Council hopes to collaborate with the delegation to inform the FCC how this rule may prevent many of Wyoming's communities from receiving federal funding.

Finally, the Broadband Advisory Council plans to coordinate their efforts with the FCC and USDA to provide broadband funding to providers and local communities throughout Wyoming. They also aim to build relationships with providers and local communities to educate them about these funding opportunities to accomplish their five key missions that are outlined in the state broadband enhancement plan.

CORONAVIRUS AID, RELIEF, AND ECONOMIC SECURITY (CARES) ACT FUNDING

In response to the 2020 COVID-19 health emergency, Wyoming Governor Mark Gordon and State legislators collaborated to develop a broadband expansion initiative to increase telemedicine, tele-education, and telework opportunities for those who reside in rural parts of the State.[22] On August 14, 2020, The Wyoming Business Council Board of Directors approved 37 broadband projects totaling $86 million in federal CARES Act funding.[23] The projects will improve broadband infrastructure in 15 counties and 54 communities and will be funded through the federal CARES Act rather than the State's broadband initiative. A list of the approved broadband projects is available on the Wyoming Business Council's website.
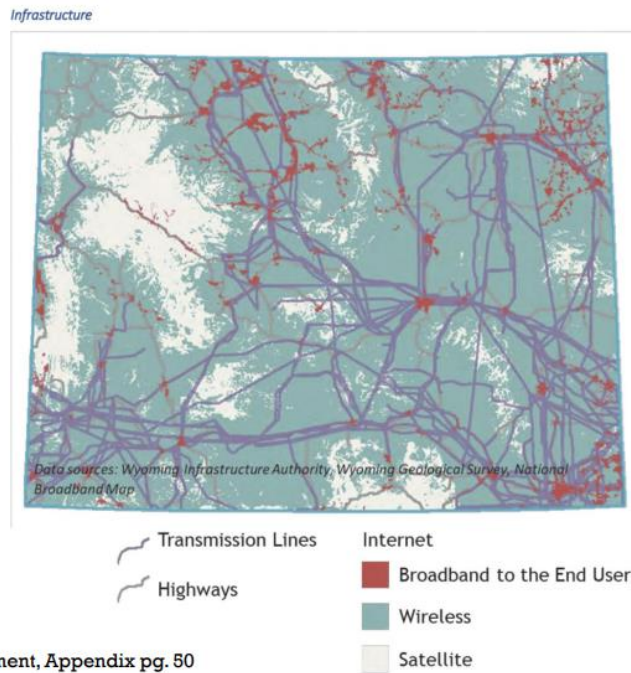
If you have any further questions, please do not hesitate to contact LSO Research at 777-7881.

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[22] https://content.govdelivery.com/accounts/WYGOV/bulletins/29a5325
[23] https://www.wyomingbusiness.org/news/gov-gordon-allocates-cares-act-funding-/12055
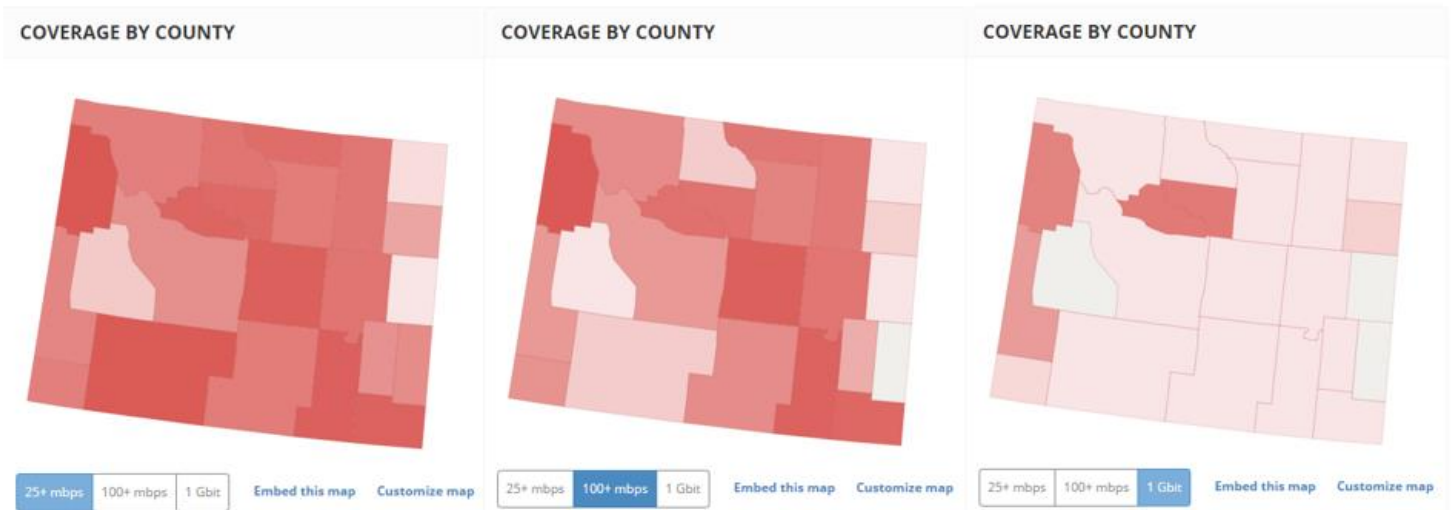
APPENDIX A

Broadband Infrastructure in Wyoming

ENDOW Socioeconomic Assessment, Appendix pg. 50

Source: Wyoming Endow Broadband Presentation, https://www.wyoleg.gov/InterimCommittee/2017/09-1026APPENDIX1E-2.pdf.
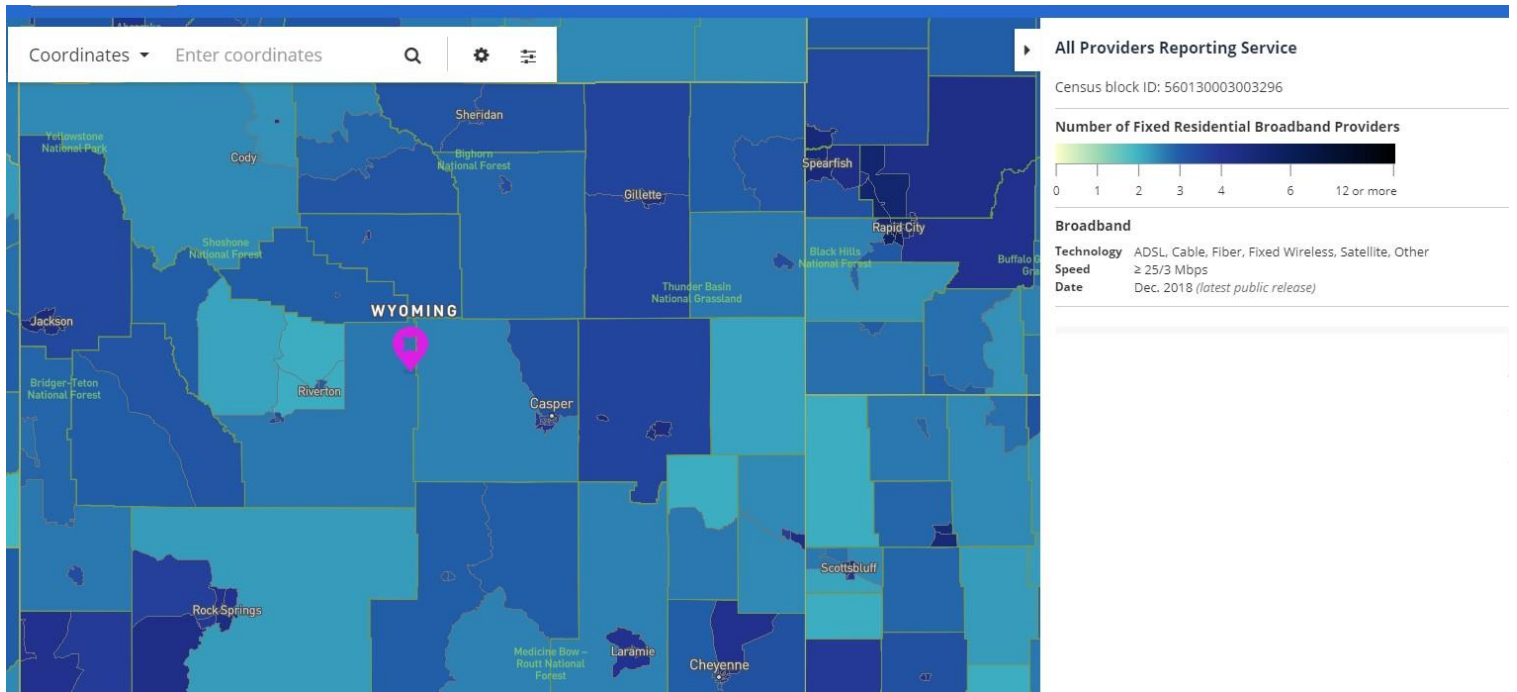
Broadband Speed by County

Counties with 25+ Mbps

Counties with 100+Mbps

Counties with 1 Gbit

Source: Broadband Now, https://broadbandnow.com/Wyoming, Accessed 3/13/2020.

Number of Broadband Providers by County

Source: FCC Providers Map, https://broadbandmap.fcc.gov/#/, Accessed 3/13/2020.