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5G Fund for Rural America: Current Status and Issues

On October 27, 2020, the Federal Communications Commission (FCC) created the 5G Fund for Rural America (5G Fund). The FCC directed that \$9 billion over the next 10 years from the Universal Service Fund (USF) be used for the new 5G Fund to expand fifth-generation wireless broadband connectivity. This included \$8 billion to bring voice and high-speed mobile broadband services to rural areas unlikely to see 5G cellular deployments without subsidies and \$1 billion for networks that can support precision agriculture.

When the FCC created the 5G Fund, it decided to wait to initiate activity until it could collect more granular mobile coverage and service data and develop more accurate maps showing mobile broadband service availability in the United States. The FCC acknowledged that waiting for data “will not be the fastest possible path” to award funds, but would allow it to “identify with greater precision those areas of the country where support is most needed.”

In August 2021, the FCC released a map showing mobile (e.g., cellular) coverage in the United States by the four largest providers. In November 2022, the FCC released the National Broadband Map showing fixed (e.g., fiber) and mobile coverage based on provider input, and allowed for public challenges to the data. In May 2023, the FCC released a second, updated map (Ver. 2), and announced Ver. 3 is to be released in November 2023; however, it has not announced plans to proceed with 5G Fund awards.

During the 118th Congress, some Members have questioned whether 5G Fund amounts allocated by the FCC will be sufficient to meet rural mobile service coverage needs. Others have raised questions concerning the FCC’s management of USF funds—a fund that collects and redistributes fees from service providers to fulfill universal service goals. Others have proposed new programs to expand fixed and wireless service in rural areas (S. 2542).

Universal Service as a Concept

The concept of universal service—that all Americans should have access to telecommunications services—was established as national policy in the Communications Act of 1934. A fund and programs to promote universal service were established in the Telecommunications Act of 1996. The act granted the FCC authority to establish the USF to promote universal service, and to establish the Universal Service Administrative Company (USAC), an independent not-for-profit corporation to serve as the USF administrator. Telecommunications providers are required to contribute a percentage (currently about 30%) of their interstate and international end-user revenue to the USF—a cost they typically pass along to consumers. The USAC collects and manages these contributions.

The Telecommunications Act of 1996 expanded universal service beyond telephone service to ensure access to high-speed internet services (e.g., broadband). Section 254 provides that consumers across the nation, including in rural areas, should have access to telecommunications and information services at rates that are “reasonably comparable” to those in urban areas.

Universal Service Fund (USF) Programs

To advance the universal service mandate, the FCC directs USF funding through four major programs—High-Cost, Lifeline, Rural Health Care, and Schools and Libraries. The FCC sets program rules and the USAC disburses USF funds through each program. USAC Annual Reports indicate that about \$8 billion is made available from the USF annually.

The FCC has changed USF programs to fulfill its universal service mandate. In 2011, the FCC reformed the High-Cost program to create the Connect America Fund (CAF), which provides about \$4.5 billion annually to eligible providers to deploy high-speed internet in rural areas. The FCC also created the Mobility Fund, a program under the CAF that provided \$300 million in one-time funding for mobile broadband and voice services in unserved and underserved areas, and the Mobility Fund Phase II program, to provide recurring funding to areas unlikely to receive unsubsidized 4G Long Term Evolution (LTE) services.

In April 2020, the FCC proposed to replace the Mobility Fund Phase II with the 5G Fund to spur deployment of 5G networks, close the digital divide among areas with varying internet access, and enhance economic opportunities in rural regions. Under the final rules for the 5G Fund, the FCC would identify areas not served by a subsidized 4G LTE or 5G provider. The FCC would then hold a reverse auction, a process in which companies submit proposals to provide 5G services in those areas and the FCC awards funds to the lowest bidder for each area.

Identifying Areas Eligible for 5G Funds

To determine eligibility for 5G Fund support, the FCC considered using existing data sources, such as broadband, telephone, and mobile service data collected from providers (e.g., Form 477 mobile coverage data submitted for the Mobility Fund). In its October 2020 Report and Order, the FCC stated the existing data was inaccurate, and decided to use data from the Digital Opportunity Data Collection—a 2019 FCC initiative to collect data on coverage from providers, allow public challenges to the data, and map mobile service availability nationwide. In the 2020 Report and Order, the FCC acknowledged that waiting for this data collection to be complete could add 18-24 months to the program’s timeline. It reasoned that the extended time would enable it to distribute funds using accurate coverage data and take into account new 5G deployments, including deployments from T-Mobile, which committed as a

condition of its 2020 merger with Sprint to cover 90% of households in U.S. rural areas within six years.

Congress Mandates Data Collection and Mapping

The FCC established the Digital Opportunity Data Collection in August 2019; the effort was not authorized or funded by Congress. In March 2020, the Broadband Deployment Accuracy and Technological Availability Act (Broadband DATA Act, P.L. 116-130) was enacted, which required the FCC to change the way broadband data is collected, verified, and reported. It directed the FCC to collect and disseminate granular broadband service availability data (maps) from wired, fixed-wireless, satellite, and mobile broadband providers. In December 2020, Congress appropriated \$65 million for the effort in the Consolidated Appropriations Act, 2021 (P.L. 116-260).

[http://www.congress.gov/cgi-bin/bdquery/R?d115:FLD002:@1\(115+260\)In](http://www.congress.gov/cgi-bin/bdquery/R?d115:FLD002:@1(115+260)In) August 2021, pursuant to the Broadband DATA Act, the FCC released the National Broadband Map showing mobile broadband coverage. In November 2022, it released the first version of a fixed broadband map. Consumers, states, localities, tribes, and others could challenge and offer improvements to the data. In May 2023, the FCC released a second, updated version (Ver. 2) of the map to reflect this input, and continues to accept challenges. It is expected to release a third version (Ver. 3) in November 2023.

Which Map Will the FCC Use?

With two versions of the National Broadband Map released and a third anticipated in November, it is unclear which map the FCC will use or how many versions may be released until the FCC deems the map accurate enough to commence 5G Fund auctions. The FCC could use Ver. 2 to identify areas eligible for 5G Fund awards, as the National Telecommunications and Information Administration (NTIA) did for the \$42.45 billion Broadband Equity, Access, and Deployment (BEAD) program, allocating funds on June 26, 2023. Some in Congress are concerned about the accuracy of Ver. 2, and introduced legislation (S. 1162 and H.R. 3609) that would direct NTIA to recalculate BEAD allocations 210 days after award using the most recent version of the map. If the FCC uses Ver. 2 for the 5G Fund, Congress may raise the same concerns. If the FCC decides to wait for an updated map (Ver. 3 or later) to launch the 5G Fund, it could identify with greater precision those areas of the country where support is most needed; this would delay awards and deployment.

Issues for Congress

Many in Congress support the 5G Fund while some have raised issues with it and the FCC's USF management.

Funding Levels for the 5G Fund

Some rural wireless providers assert that \$8 billion is not enough to provide 5G service in unserved and underserved areas. The Competitive Carriers Association (CCA), citing a study it commissioned, stated \$36 billion in government and private investment is needed to ensure ubiquitous 5G coverage. It urged the FCC to allocate an additional \$11 billion in USF funds, increasing the 5G Fund to \$20 billion.

In H.Rept. 118-145, accompanying a version of the Financial Services and General Government Appropriations

Bill, 2024, the House Appropriations Committee also expressed concern that \$9 billion for the 5G Fund is not sufficient to support nationwide 5G services. It would direct the FCC to allocate sufficient resources from the USF to expand 5G services. The FCC set 5G Fund amounts before collecting coverage data, and the CCA's estimate was calculated before the first FCC National Broadband Map was complete. Thus, the specific amount of additional funds needed, if any, could be informed by the data collected by the FCC and the version of the map it decides to use.

Some providers assert that operating and maintaining rural networks is costly, that there is no business case for operating in some rural regions, and sustained subsidization of operations is needed. One option for Congress to address that concern could be to direct the FCC to assess ongoing operational costs in rural areas and use USF funds to help providers sustain 5G networks and services. While the FCC could increase USF funding to the program, such a policy could require increased USF contributions from providers, which could increase costs for consumers. Consumer costs are a persistent issue of interest for many Members.

Supporting New Technologies

In H.Rept. 118-145, the House Appropriations Committee would direct the FCC to update the 5G Fund framework to reflect new technologies. In its 2020 rules, the FCC did not categorically exclude technologies from 5G Fund support, so long as the provider complies with 5G standards and meets performance requirements (e.g., speed, latency). New technologies may mean satellite-to-cellular services, which could help to expand rural coverage and improve service, or using an Open Radio Access Network (ORAN) approach to deploying 5G networks. ORAN promotes equipment interoperability and virtualized network operations. One option for Congress could be to direct the FCC to support ORAN through the 5G Fund, which could help to develop the ORAN approach and open the network equipment market to U.S. vendors, but could also add complexity and time to projects and increase the 5G Fund support needed.

USF Effectiveness

USF funds (about \$8 billion annually) give the FCC flexibility to address advanced universal service, expand deployment of new technologies and services, and restore communications after disasters. Because the USF is funded by telecommunication providers, it does not require congressional appropriations.

In the 118th Congress, Members have addressed USF funding and reforms. S. 856 would require the FCC to study and report on the feasibility of requiring edge providers (e.g., online content providers) to contribute to the USF. In a May 2023 Senate Commerce, Science, and Transportation Committee, Subcommittee on Communications, Media, and Broadband hearing, some Members raised issues with the contribution rate, consumer costs, program effectiveness, and Congress' limited input on USF operations. In May 2023, Senators Luján and Thune announced a Senate working group to evaluate USF reforms and policy. Any changes to the USF could affect the 5G Fund.

Jill C. Gallagher, Analyst in Telecommunications Policy

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