Congressional Research Service
Informing the legislative debate since 1914

Broadband Loan and Grant Programs in the USDA's Rural Utilities Service

July 6, 2018

Congressional Research Service
https://crsreports.congress.gov
RL33816

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

Given the large potential impact broadband access may have on the economic development of rural America, concern has been raised over a "digital divide" between rural and urban or suburban areas with respect to broadband deployment. While there are many examples of rural communities with state-of-the-art telecommunications facilities, recent surveys and studies have indicated that, in general, rural areas tend to lag behind urban and suburban areas in broadband deployment.

According to the FCC's *2018 Broadband Deployment Report*, 30.7% of Americans in rural areas and 35.4% of Americans in tribal lands lack access to fixed terrestrial 25 Mbps/3 Mbps broadband, as compared to 2.1% of Americans in urban areas. The comparatively lower population density of rural areas is likely a major reason why broadband is less deployed than in more highly populated suburban and urban areas. Particularly for wireline broadband technologies—such as cable modem and fiber—the greater the geographical distances among customers, the larger the cost to serve those customers.

The Rural Utilities Service (RUS) at the U.S. Department of Agriculture (USDA) houses two ongoing assistance programs exclusively created and dedicated to financing broadband deployment: the Rural Broadband Access Loan and Loan Guarantee Program and the Community Connect Grant Program. Additionally, the Telecommunications Infrastructure Loan and Loan Guarantee Program (previously the Telephone Loan Program) funds broadband deployment in rural areas. Distance Learning and Telemedicine (DLT) grants—while not principally supporting connectivity—fund equipment and software that operate via telecommunications to rural end-users of telemedicine and distance learning applications.

The Consolidated Appropriations Act, 2018 (P.L. 115-141) provided $5 million to subsidize a broadband loan level of $29.851 million, $30 million to Community Connect broadband grants, $49 million for DLT grants, and $0.863 million in loan subsidies for a total loan level of $690 million for the Telecommunications Infrastructure Loan and Loan Guarantee Program. P.L. 115-141 also appropriated $600 million to RUS to "conduct a new broadband loan and grant pilot program."

With the 2014 farm bill expiring on September 30, 2018, the 115th Congress is considering reauthorization of the RUS broadband loan program and other broadband-related provisions in the 2018 farm bill. H.R. 2, the Agriculture and Nutrition Act of 2018, which was passed by the House on June 21, 2018, seeks to address rural broadband programs at USDA through Title VI, Subtitle B, "Connecting Rural Americans to High Speed Broadband." On June 28, the Senate passed its version of H.R. 2Agriculture Improvement Act of 2018, which would reauthorize and modify the broadband loan program, and codify the existing Community Connect Grant Program.

Contents

Background: Broadband and Rural America 1
Rural Broadband Programs at the Rural Utilities Service 2
Rural Broadband Access Loan and Loan Guarantee Program 4
Community Connect Broadband Grants 6
Telecommunications Infrastructure Loans and Loan Guarantees 8
Distance Learning and Telemedicine Program 9
New Broadband Loan and Grant Pilot Program 9
Impact of Universal Service Reform on RUS Broadband Loan Programs 10
Task Force on Agriculture and Rural Prosperity 11
Appropriations 11
FY2017 12
FY2018 14
FY2019 15
Past Criticisms of RUS Broadband Programs 17
Loan Approval and Application Process 17
Eligibility Criteria 18
Loans to Communities With Existing Providers 19
Follow-Up Audit by USDA Office of Inspector General 20
2014 GAO Report 21
Broadband Loan Reauthorization in the Farm Bill 21
2008 Farm Bill 21
Restricting Applicant Eligibility 22
Definition of "Rural Community" 22
Preexisting Broadband Service 22
Technological Neutrality 23
P.L. 110-246 24
Implementation of P.L. 110-246 26
2014 Farm Bill 26
Implementation of P.L. 113-79 28
2018 Farm Bill 29
House 29
Senate 31
Differences Between House and Senate Bills 33
Other Legislation in the 115th Congress 34

Tables

Table 1. Appropriations Funding for the Rural Broadband Access Loan and Loan Guarantee Program 5
Table 2. Appropriations for the Community Connect Broadband Grants 7
Table 3. Recent and Proposed Appropriations for RUS Broadband Programs 12

Table A-1. Rural Development Telecom Awards, FY2009-FY2016 37

Appendixes

Appendix. Rural Development Telecom Awards 37

Contacts

Author Information..... 38

Background: Broadband and Rural America

The broadband loan and grant programs at RUS are intended to accelerate the deployment of broadband services in rural America. "Broadband" refers to high-speed internet access and advanced telecommunications services for private homes, commercial establishments, schools, and public institutions. Currently in the United States, residential broadband is primarily provided via cable modem (from the local provider of cable television service), fiber-optic cable, mobile wireless (e.g., smartphones), or over the copper telephone line (digital subscriber line or "DSL"). Other broadband technologies include fixed wireless and satellite.

Broadband access enables a number of beneficial applications to individual users and to communities. These include ecommerce, telecommuting, voice service (voice over the internet protocol or "VOIP"), distance learning, telemedicine, public safety, and others. It is becoming generally accepted that broadband access in a community can play an important role in economic development.

Access to affordable broadband is viewed as particularly important for the economic development of rural areas because it enables individuals and businesses to participate fully in the online economy regardless of geographical location. For example, aside from enabling existing businesses to remain in their rural locations, broadband access could attract new business enterprises drawn by lower costs and a more desirable lifestyle. Essentially, broadband potentially allows businesses and individuals in rural America to live locally while competing globally in an online environment. A 2016 study from the Hudson Institute found that rural broadband providers directly and indirectly added $24.1 billion to the U.S. economy in 2015. The rural broadband industry supported 69,595 jobs in 2015, both through its own employment and the employment that its purchases of goods and services generated.[1]

Given the large potential impact broadband may have on the economic development of rural America, concern has been raised over a "digital divide" between rural and urban or suburban areas with respect to broadband deployment. While there are many examples of rural communities with state-of-the-art telecommunications facilities,[2] recent surveys and studies have indicated that, in general, rural areas tend to lag behind urban and suburban areas in broadband deployment. For example:

- According to the FCC's *2018 Broadband Deployment Report*, "the gap in rural and Tribal America remains notable: 30.7 percent of Americans in rural areas and 35.4 percent of Americans in Tribal lands lack access to fixed terrestrial 25 Mbps/3 Mbps broadband, as compared to only 2.1 percent of Americans in urban areas."[3]

[1] Hanns Kuttner, Hudson Institute, *The Economic Impact of Rural Broadband*, April 2016, available at https://s3.amazonaws.com/media.hudson.org/files/publications/20160419KuttnerTheEconomicImpactofRuralBroadband.pdf.

[2] See for example, National Exchange Carrier Association (NECA), *Trends: A Report on Rural Telecom Technology*, 18 pages, December 2015, available at https://www.neca.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=12331&libID=12351.

[3] Federal Communications Commission, *2018 Broadband Deployment Report*, In the Matter of Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, GN Docket no. 17-199, FCC 18-10, adopted and released February 2, 2018, p. 22, available at https://www.fcc.gov/document/fcc-releases-2018-broadband-deployment-report.

- Also according to the FCC's *2018 Broadband Deployment Report*, "Rural and Tribal areas continue to lag behind urban areas in mobile broadband deployment. Although evaluated urban areas saw an increase of 10 Mbps/3 Mbps mobile LTE from 81.9% in 2014 to 90.5% in 2016, such deployment in evaluated rural and Tribal areas remained flat at about 70% and 64%, respectively. Approximately 14 million rural Americans and 1.2 million Americans living on Tribal lands still lack mobile LTE broadband at speeds of 10 Mbps/3 Mbps."[4]
- According to 2016 survey data from the Pew Research Center, 63% of adults in rural areas said they have a high-speed broadband connection at home, as opposed to 73% of adults in urban areas and 76% of adults in suburban areas.[5]
- The National Telecommunications and Information Administration (NTIA) Computer and Internet Use Supplement to the Census Bureau's Current Population Survey found that a rural/urban gap remained in 2015, with 69% of rural residents reporting using the internet, versus 75% of urban residents. According to NTIA, the data "indicates a fairly constant 6-9 percentage point gap between rural and urban communities' Internet use over time."[6]

The comparatively lower population density of rural areas is likely the major reason why broadband is less deployed than in more highly populated suburban and urban areas. Particularly for wireline broadband technologies—such as cable modem, fiber, and DSL—the greater the geographical distances among customers, the larger the cost to serve those customers. Thus, there is often less incentive for companies to invest in broadband in rural areas than, for example, in an urban area where there is more demand (more customers with perhaps higher incomes) and less cost to wire the market area.

The terrain of rural areas can also be a hindrance, in that it is more expensive to deploy broadband technologies in a mountainous or heavily forested area. An additional added cost factor for remote areas can be the expense of "backhaul" (e.g., the "middle mile"), which refers to the installation of a dedicated line that transmits a signal to and from an internet backbone, which is typically located in or near an urban area.

Another important broadband availability issue is the extent to which there are multiple broadband providers offering competition and consumer choice. Typically, multiple providers are more prevalent in urban than in rural areas.[7]

Rural Broadband Programs at the Rural Utilities Service

Because private providers are unlikely to earn enough revenue to cover the costs of deploying and operating broadband networks in many unserved rural areas, it is unlikely that private investment

[4] FCC summary of *2018 Broadband Deployment Report*, February 2, 2018, available at https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report.

[5] Pew Research Center, *Digital Gap Between Rural and Nonrural America Persists*, May 19, 2017, available at http://www.pewresearch.org/fact-tank/2017/05/19/digital-gap-between-rural-and-nonrural-america-persists/.

[6] U.S. Department of Commerce, National Telecommunications and Information Administration, "The State of the Urban/Rural Digital Divide," August 10, 2016, available at https://www.ntia.doc.gov/blog/2016/state-urbanrural-digital-divide.

[7] See Table 2 in CRS In Focus IF10441, *Broadband Deployment: Status and Federal Programs*, by Lennard G. Kruger.

alone will bring service to these areas.[8] In 2000, given the lagging deployment of broadband in rural areas, Congress and the Administration acted to initiate pilot broadband loan and grant programs within the Rural Utilities Service of the U.S. Department of Agriculture. While RUS had long maintained telecommunications loan and grant programs (Rural Telephone Loans and Loan Guarantees, Rural Telephone Bank, and more recently, the Distance Learning and Telemedicine Loans and Grants), none were exclusively dedicated to financing rural broadband deployment. Title III of the FY2001 agriculture appropriations bill (P.L. 106-387) directed USDA/RUS to conduct a "pilot program to finance broadband transmission and local dial-up Internet service in areas that meet the definition of 'rural area' used for the Distance Learning and Telemedicine Program."

Subsequently, on December 5, 2000, RUS announced the availability of $100 million in loan funding through a one-year pilot program "to finance the construction and installation of broadband telecommunications services in rural America."[9] The broadband pilot loan program was authorized under the authority of the Distance Learning and Telemedicine Program (7 U.S.C. 950aaa), and was available to "legally organized entities" not located within the boundaries of a city or town having a population in excess of 20,000.

The FY2002 agriculture appropriations bill (P.L. 107-76) designated a loan level of $80 million for broadband loans, and on January 23, 2002, RUS announced that the pilot program would be extended into FY2002, with $80 million in loans made available to fund many of the applications that did not receive funding during the previous year.[10]

Meanwhile, the FY2002 agriculture appropriations bill (P.L. 107-76) allocated $20 million for a pilot broadband grant program, also authorized under the Distance Learning and Telemedicine Program. On July 8, 2002, RUS announced the availability of $20 million for a pilot grant program for the provision of broadband service in rural America. The program was specifically targeted to economically challenged rural communities with no existing broadband service. Grants were made available to entities providing "community-oriented connectivity," which the RUS defined as those entities "who will connect the critical community facilities including the local schools, libraries, hospitals, police, fire and rescue services and who will operate a community center that provides free and open access to residents."[11]

The pilot program was extended into FY2003, as the Consolidated Appropriations Resolution of 2003 (P.L. 108-7) allocated $10 million for broadband grants.

Currently, RUS has four ongoing programs that have been established to incentivize and subsidize broadband infrastructure investment in unserved and underserved rural areas. These include the following:

- *Rural Broadband Access Loans*—funds the costs of construction, improvement, or acquisition of facilities and equipment needed to provide service in eligible rural areas.

[8] Government Accountability Office, *Projects and Policies Related to Deploying Broadband in Unserved and Underserved Areas*, GAO-14-409, April 2014, p. 9, available at http://www.gao.gov/assets/670/662711.pdf.

[9] Rural Utilities Service, USDA, "Construction and Installation of Broadband Telecommunications Services in Rural America; Availability of Loan Funds," *Federal Register*, Vol. 65, No. 234, December 5, 2000, p. 75920.

[10] Rural Utilities Service, USDA, "Broadband Pilot Loan Program," *Federal Register*, Vol. 67, No. 15, January 23, 2002, p. 3140.

[11] Rural Utilities Service, USDA, "Broadband Pilot Grant Program," *Federal Register*, Vol. 67, No. 130, July 8, 2002, p. 45080.

- *Community Connect Grants*—funds broadband deployment into rural communities where it is not yet economically viable for private sector providers to deliver service.
- *Telecommunications Infrastructure Loans and Loan Guarantees*—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*—principally funds end-user equipment to help rural communities use telecommunications to link teachers and medical service providers in one area to students and patients in another.

In addition, a new broadband loan and grant pilot program has been established and funded at $600 million by the Consolidated Appropriations Act, 2018 (P.L. 115-141).

Table A-1 in the Appendix shows the total amount and number of awards provided by the RUS broadband programs for each state between FY2009 and FY2016.

In its April 2017 report, *Rural Broadband Deployment: Improved Consistency with Leading Practices Could Enhance Management of Loan and Grant Programs*, GAO reported that (according to RUS data) since FY2004, RUS has approved 704 broadband projects totaling almost $8.6 billion in loans and $144.8 million in grants to deploy telecommunications or broadband infrastructure networks in rural areas.[12]

Rural Broadband Access Loan and Loan Guarantee Program

Building on the pilot broadband loan program at RUS, Section 6103 of the Farm Security and Rural Investment Act of 2002 (P.L. 107-171) amended the Rural Electrification Act of 1936 to authorize a loan and loan guarantee program to provide funds for the costs of the construction, improvement, and acquisition of facilities and equipment for broadband service in eligible rural communities.[13] Section 6103 made available, from the funds of the Commodity Credit Corporation (CCC), a total of $100 million through FY2007. P.L. 107-171 also authorized any other funds appropriated for the broadband loan program. The program was subsequently reauthorized by Section 6110 of the Food, Conservation, and Energy Act of 2008 (P.L. 110-246), and by Section 6104 of the Agricultural Act of 2014 (P.L. 113-79).

Beginning in FY2004, Congress annually blocked mandatory funding from the CCC. Thus—starting in FY2004—the program was funded as part of annual appropriations in the Distance Learning and Telemedicine account within the Department of Agriculture appropriations bill. Every fiscal year, Congress approves an appropriation (loan subsidy) and a specific loan level (lending authority) for the Rural Broadband Access Loan and Loan Guarantee Program. **Table 1** shows—for the life of the program to date—loan subsidies and loan levels (lending authority) set by Congress in annual appropriations bills.

[12] Government Accountability Office, *Rural Broadband Deployment: Improved Consistency with Leading Practices Could Enhance Management of Loan and Grant Program*, GAO-17-301, April 2017, p. 2, available at https://www.gao.gov/assets/690/684093.pdf.

[13] Title VI of the Rural Electrification Act of 1936 (7 U.S.C. 950bb).

Table 1. Appropriations Funding for the Rural Broadband Access Loan and Loan Guarantee Program

	Direct Appropriations (subsidy level)	Loan Levels Estimated in Annual Appropriations[a]
FY2001 (pilot)	—	$100 million
FY2002 (pilot)	—	$80 million
FY2003	[b]	$80 million
FY2004	$13.1 million	$602 million
FY2005	$11.715 million	$550 million
FY2006	$10.75 million	$500 million
FY2007	$10.75 million	$500 million
FY2008	$6.45 million	$300 million
FY2009	$15.619 million	$400 million
FY2010	$28.96 million	$400 million
FY2011	$22.32 million	$400 million
FY2012	$6.0 million	$212 million
FY2013	$4 million	$42 million
FY2014	$4.5 million	$34.5 million
FY2015	$4.5 million	$24.1 million
FY2016	$4.5 million	$20.6 million
FY2017	$4.5 million	$27.0 million
FY2018	$5 million	$29.0 million

Source: Compiled by CRS from appropriations bills.

a. Actual loan levels for a fiscal year can vary from what is estimated in annual appropriations bill.

b. Program received $40 million composed of $20 million from FY2002 plus $20 million from FY2003 of mandatory funding from the Commodity Credit Corporation, as directed by P.L. 107-171. In the FY2004, FY2005, and FY2006 appropriations bills, mandatory funding from the CCC was canceled.

The Rural Broadband Access Loan and Loan Guarantee Program is codified as 7 U.S.C. 950bb. On July 30, 2015, the RUS published in the *Federal Register* the interim rule (7 C.F.R. part 1738) implementing the Rural Broadband Access Loan and Loan Guarantee Program as reauthorized by the enactment of the Agricultural Act of 2014 (P.L. 113-79),[14] and the interim rule was made final on June 9, 2016. Entities eligible to receive loans include corporations, limited liability companies, cooperative or mutual organizations, Indian tribes or tribal organizations, and state or local governments. Eligible areas for funding must be completely contained within a rural area (or composed of multiple rural areas). Additionally, at least 15% of the households in the proposed funded service areas must be unserved, no part of the proposed service area can have three or more incumbent service providers, and no part of the proposed service area can overlap with the service area of current RUS borrowers or of grantees that were funded by RUS.

Whereas RUS had previously been setting two application periods per year, the latest Notice of Solicitation of Applications (NOSA) announced that RUS is now accepting applications on a rolling basis through September 30, 2018, which will give RUS the ability to request additional

[14] Department of Agriculture, Rural Utilities Service, "Rural Broadband Access Loans and Loan Guarantees," Interim rule, 80 *Federal Register* 45397-45413, July 30, 2015, available at https://www.gpo.gov/fdsys/pkg/FR-2015-07-30/pdf/2015-18624.pdf.

information and modifications to submitted applications if necessary. RUS will evaluate the submitted applications every 90 days, and anticipates at least two evaluation periods for FY2018. The minimum loan amount is $300,000, while the maximum loan amount is $25 million. The NOSA has maintained its definition of broadband service and broadband lending speed at no less than 25 Mbps download and 3 Mbps upload for both mobile and fixed services.[15]

For the latest application information, see http://www.rd.usda.gov/programs-services/farm-bill-broadband-loans-loan-guarantees.

Community Connect Broadband Grants

The Consolidated Appropriations Act of 2004 (P.L. 108-199) appropriated $9 million "for a grant program to finance broadband transmission in rural areas eligible for Distance Learning and Telemedicine Program benefits authorized by 7 U.S.C. 950aaa." Essentially operating the same as the pilot broadband grants, the program provides grant money to applicants proposing to provide broadband on a "community-oriented connectivity" basis to currently unserved rural areas for the purpose of fostering economic growth and delivering enhanced health care, education, and public safety services. Funding for the broadband grant program is provided through annual appropriations in the Distance Learning and Telemedicine account within the Department of Agriculture appropriations bill. **Table 2** shows a history of appropriations for the Community Connect Broadband Grants.

[15] Department of Agriculture, Rural Utilities Service, "Rural Broadband Access Loan and Loan Guarantees Program," Notice of Solicitation of Applications (NOSA), 83 *Federal Register* 13225-13226, March 28, 2018, available at https://www.gpo.gov/fdsys/pkg/FR-2018-03-28/pdf/2018-06175.pdf.

Table 2. Appropriations for the Community Connect Broadband Grants

Fiscal Year	Appropriation
FY2002	$20 million
FY2003	$10 million
FY2004	$9 million
FY2005	$9 million
FY2006	$9 million
FY2007	$9 million
FY2008	$13.4 million
FY2009	$13.4 million
FY2010	$17.9 million
FY2011	$13.4 million
FY2012	$10.4 million
FY2013	$10.4 million
FY2014	$10.4 million
FY2015	$10.4 million
FY2016	$10.4 million
FY2017	$34.5 million
FY2018	$30 million

Source: Compiled by CRS from appropriations bills.

Eligible applicants for broadband grants include most state and local governments, federally recognized tribes, nonprofits, and for-profit corporations.

Funded projects must serve a rural area where broadband service above a specified minimum speed does not exist, deploy free broadband service for at least two years to all community facilities, and offer broadband to residential and business customers. Up to 10% of the grant may be used for the improvement, expansion, construction, or acquisition of a community center that provides online access to the public.

On May 3, 2013, RUS issued a new final rule for Community Connect grants in the *Federal Register*.[16] The final rule changes previous requirements related to matching funds, eligible communities, and application scoring criteria. The final rule also removes the previous definition of broadband service speed (200 kbps). A new threshold for broadband service speed and broadband grant speed (the speed the grantee must deliver) will be provided in an annual Notice of Funding Availability (NOFA) in the *Federal Register*. The NOFA will also specify the deadline for applications, the total amount of funding available, and the maximum and minimum amount of funding available for each grant.

On March 15, 2018, RUS issued a Notice of Solicitation of Applications (NOSA) establishing an application window for FY2018 Community Connect grants through May 14, 2018.[17] The NOSA

[16] Department of Agriculture, Rural Utilities Service, "Community Connect Broadband Grant Program," 78 *Federal Register* 25787-25795, May 3, 2013, available at http://www.gpo.gov/fdsys/pkg/FR-2013-05-03/pdf/2013-10502.pdf.

[17] Department of Agriculture, Rural Utilities Service, "Announcement of Grant Application Deadlines and Funding

established a new minimum threshold for speeds constituting broadband service at 10 Mbps download and 1 Mbps upload for both fixed and mobile broadband. The minimum broadband speed that an applicant must propose to deliver is 25 Mbps download, 3 Mbps upload for both fixed and mobile service to the customer. Further information, including application materials and guidelines, is available at http://www.rd.usda.gov/programs-services/community-connect-grants.

Telecommunications Infrastructure Loans and Loan Guarantees

The Telecommunications Infrastructure Loan and Loan Guarantee Program[18] provides loans and loan guarantees for the construction, maintenance, improvement, and expansion of telephone service and broadband in rural areas. The program was first authorized in 1949 to finance rural telephone service. Since 1995, RUS has required that networks funded by this program offer broadband service as well.

Loans and loan guarantees are available only to rural areas and towns with a population of 5,000 or less. Also, the program cannot fund networks that duplicate similar services in the same area.

The program is authorized to provide several different types of financing, including

- direct Treasury rate loans, which bear interest at the government's cost of money (or the current Treasury rate). Thus, the interest charged varies with the Treasury rate. As Treasury rates increase, so does the cost to the borrower for these loans.
- guaranteed loans, which are provided to borrowers of a nongovernment lender or from the Federal Financing Bank (FFB). The interest rate charged on FFB loans is the Treasury rate plus an administrative fee of one-eighth of 1%. The terms of these loans may vary significantly and allow borrowers more flexibility in meeting their financing needs.
- hardship direct loans, which bear interest at a fixed rate of 5% per year. These loans are intended only for borrowers with extremely high investment costs in terms of per subscriber service. These borrowers also have a very low number of subscribers for each mile of telecommunications line constructed. This low subscriber density inherently increases the cost to serve the most sparsely populated rural areas. Because of the high cost of the investment needed, these borrowers cannot typically afford higher interest rate loans.[19]

The annual loan level for the Telecommunications Infrastructure Loan and Loan Guarantee Program is $690 million. Currently, the 5% hardship loans are not offered—because of low interest rates, the Treasury and FFB loans can currently offer lower interest rates than the 5% offered by hardship loans.

Levels," Notice of Solicitation of Applications (NOSA), 83 *Federal Register* 11494-11499, March 15, 2018, available at https://www.gpo.gov/fdsys/pkg/FR-2018-03-15/pdf/2018-05200.pdf.

[18] For more information, see http://www.rd.usda.gov/programs-services/telecommunications-infrastructure-loans-loan-guarantees.

[19] 2017 USDA Budget Explanatory Notes for Committee on Appropriations, p. 31-2, available at http://www.obpa.usda.gov/31rus2017notes.pdf.

Distance Learning and Telemedicine Program

The Distance Learning and Telemedicine (DLT) Program was established by the 1996 farm bill—the Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127). Though initially providing both grants and loans, since FY2009 only DLT grants have been awarded by RUS.

DLT grants serve as initial capital assets for equipment and software that operate via telecommunications to rural end-users of telemedicine and distance learning. DLT grants do not support connectivity. Grant funds may be used for audio, video, and interactive video equipment; terminal and data terminal equipment; computer hardware, network components, and software; inside wiring and similar infrastructure; acquisition of instructional programming; broadband facilities;[20] and technical assistance. Eligible applicants include most entities in rural areas that provide education or health care through telecommunications, including most state and local governmental entities, federally recognized tribes, nonprofits, for-profit businesses, and consortia of eligible entities.

New Broadband Loan and Grant Pilot Program

Section 779 of the Consolidated Appropriations Act, 2018 (P.L. 115-141) appropriated $600 million to RUS to "conduct a new broadband loan and grant pilot program." The law states that the funding is to "remain available until expended," and that

- at least 90% of the households to be served by a project receiving a loan or grant under the pilot program shall be in a rural area without sufficient access to broadband, defined for this pilot program as 10 Mbps downstream, and 1 Mbps upstream, which shall be reevaluated and redetermined, as necessary, on an annual basis by the Secretary of Agriculture;
- an entity to which a loan or grant is made under the pilot program shall not use the loan or grant to overbuild or duplicate broadband expansion efforts made by any entity that has received a broadband loan from RUS;
- in addition to other available funds, not more than 4% of the funds can be used for administrative costs to carry out the pilot program and up to 3% may be utilized for technical assistance and predevelopment planning activities to support the most rural communities; and
- RUS shall adhere to the notice, reporting, and service area assessment requirements previously established in the 2014 farm bill.

The Explanatory Statement that accompanied the FY2018 Consolidated Appropriations Act states

> The agreement reiterates that funding should be prioritized to areas currently lacking access to broadband service, and investments in broadband shall consider any technology that best serves the goals of broadband expansion. Lastly, the agreement restates the importance of coordination among federal agencies in expanding broadband deployment and adoption and expects the Department to take caution to maximize these limited resources and not overbuild or duplicate existing broadband capable infrastructure.

[20] As of FY2018, purchasing and installing broadband facilities has been added to the approved grant purposes. This purpose is limited to a maximum of 20% of the requested grant amount and must be used for providing distance learning or telemedicine services. The awardee must own the final broadband asset in order for funding to be approved. See USDA Rural Development, *Distance Learning and Telemedicine Grant Program Application Guide Fiscal Year 2018*, p. 7, available at https://www.rd.usda.gov/files/2018-DLT_App-Guide_final.pdf.

According to USDA Secretary Sonny Perdue, the $600 million in appropriated funding for a "new pilot grant and loan combination program," will "provide broadband to under-served rural and tribal areas" and "leverage nearly $1 billion in total new rural broadband projects."[21]

Impact of Universal Service Reform on RUS Broadband Loan Programs

RUS currently has three programs that provide or have provided loans for broadband infrastructure projects: the Rural Broadband Access Loan and Loan Guarantee program (also known as the Farm Bill broadband loan program), the Broadband Initiatives Program (BIP under the ARRA), and the Telecommunications Infrastructure Loan Program (established in 1949 as the Rural Telephone Loan and Loan Guarantee program).[22]

Whereas RUS broadband loans are used as up-front capital to invest in broadband infrastructure, the Federal Communications Commission's (FCC's) Universal Service Fund (USF)—specifically, the high cost fund—has functioned as an ongoing subsidy to keep the operation of telecommunications networks in high cost areas profitable for providers. Many RUS telecommunications and broadband borrowers (loan recipients) receive high cost USF subsidies. In many cases, the subsidy received from USF helps provide the revenue necessary to keep the loan viable. The Telecommunications Infrastructure Loan Program is highly dependent on high cost USF revenues, with 99% (476 out of 480 borrowers) receiving interstate high cost USF support. This is not surprising, given that the RUS Telecommunications Infrastructure Loans are available only to the most rural and high cost areas (towns with populations less than 5,000). Regarding broadband loans, 60% of BIP (stimulus) borrowers draw from state or interstate USF support mechanisms, while 10% of Farm Bill (Rural Broadband Access Loan and Loan Guarantee Program) broadband borrowers receive interstate high cost USF support.[23]

The FCC, in an October 2011 decision, adopted an order that calls for the USF to be transformed, in stages, over a multiyear period—from a mechanism to support voice telephone service to one that supports the deployment, adoption, and use of both fixed and mobile broadband. More specifically, the high cost program is being phased out and a new fund, the Connect America Fund (CAF), which includes the targeted Mobility Fund and new Remote Areas Fund, is replacing it.[24]

During this transition, the uncertainty surrounding the FCC's proposed methodology for distributing Connect America Fund monies has led many small rural providers to postpone or cancel investment in broadband network upgrades.[25] According to RUS, "demand for RUS loans

[21] USDA, "Secretary Perdue Applauds Broadband Investment Included in Omnibus," *Press Release*, March 23, 2018, available at https://www.usda.gov/media/press-releases/2018/03/23/secretary-perdue-applauds-broadband-investment-included-omnibus.

[22] For more information on the RUS portfolio of telecommunications and broadband programs offering loans, loan guarantees, grants, and loan/grant combinations, see CRS Report R42524, *Rural Broadband: The Roles of the Rural Utilities Service and the Universal Service Fund*, by Angele A. Gilroy and Lennard G. Kruger.

[23] Jessica Zufolo, Deputy Administrator, RUS, *Overview of the RUS Telecommunications Loan and Grant Programs*, July 2011, Slide 7, http://www.narucmeetings.org/Presentations/Zufolo_7-2011.pdf.

[24] For more information, see CRS Report R42524, *Rural Broadband: The Roles of the Rural Utilities Service and the Universal Service Fund*, by Angele A. Gilroy and Lennard G. Kruger.

[25] According to a January 2013 survey conducted by NTCA—The Rural Broadband Association, 69% of member companies responding to the survey had either cancelled or postponed $492.7 million in broadband investments due to the uncertainty surrounding the transition to the FCC's Connect America Fund. See NTCA—The Rural Broadband

dropped to roughly 37% of the total amount of loan funds appropriated by Congress in FY2012," and "[c]urrent and prospective RUS borrowers have communicated their hesitation to increase their outstanding debt and move forward with planned construction due to the recently implemented reductions in USF support and Inter-Carrier Compensation (ICC) payments."[26]

Task Force on Agriculture and Rural Prosperity

The Interagency Task Force on Agriculture and Rural Prosperity was created on April 25, 2017, by Executive Order 13790 and was charged with identifying legislative, regulatory, and policy changes to promote agriculture, economic development, job growth, infrastructure improvements, technological innovation, energy security, and quality of life in rural America. The first recommendation of the Task Force's report to the President is to expand e-connectivity in rural and tribal areas.[27]

To help implement this recommendation, the Administration requested $500 million in a discretionary add-on to the FY2018 appropriation which would fund a combination grant/loan program at USDA/RUS to deploy broadband in rural and tribal areas. The Administration also requested $50 million for the National Telecommunications and Information Administration (NTIA) at the Department of Commerce to conduct an assessment, within 12 months, of the current state of broadband access nationwide, including identification of existing infrastructure, gaps, and opportunities for more efficient deployment. This information is intended to help RUS and other federal agencies more effectively target funding to areas where it will have the greatest impact.

The Consolidated Appropriations Act, 2018 (P.L. 115-141) appropriated $600 million to RUS to "conduct a new broadband loan and grant pilot program." The act also appropriated $7.5 million to NTIA to update the national broadband availability map in coordination with the FCC.

Appropriations

The Rural Broadband Access Loan and Loan Guarantee Program, the Community Connect Grant Program, the Telecommunications Infrastructure Loan and Loan Guarantee program, and the Distance Learning and Telemedicine grant program are funded through the annual Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act. The appropriations provided to the broadband loan programs are loan subsidies which support a significantly higher loan level. **Table 3** shows recent and proposed appropriations for the broadband loan program, the Community Connect grant program, the DLT grant program, and Telecommunications Infrastructure loans and loan guarantees.

Association, *Survey: FCC USF/ICC Impacts*, January 2013, available at http://www.ntca.org/images/stories/Documents/Advocacy/SurveyReports/FCC_USF_ICC_ImpactSurvey.pdf.

[26] Letter from RUS to the FCC, February 13, 2013, available at https://prodnet.www.neca.org/publicationsdocs/wwpdf/21513usda.pdf.

[27] U.S. Department of Agriculture, Agriculture and Rural Prosperity Task Force, Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity, October 21, 2017, pp. 17-20, available at https://www.usda.gov/sites/default/files/documents/rural-prosperity-report.pdf. The Task Force recommended that the Administration establish executive leadership to expand e-connectivity across rural America, assess the state of rural e-connectivity, reduce regulatory barriers to infrastructure deployment, assess the efficacy of current programs, and incentivize private capital investment.

The Telecommunications Loan program has, for the most part, been self-sustaining and set at an annual loan level of $690 million with typically little or no annual appropriation or budget authority required to subsidize the loans.

Table 3. Recent and Proposed Appropriations for RUS Broadband Programs

(dollars)

	FY2017 (P.L. 115-31)	FY2018 P.L. 115-141)	FY2019 (Admin. Request)	FY2019 (House Approp. Comm)	FY2019 (Senate Approp. Comm)
Broadband Loans	4.5 million (27 million loan level)	5.0 million (29.8 million loan level)	4.5 million (23.1 million loan level)	5.8 million (29.8 million loan level)	5.8 million (29.8 million loan level)
Telecom Infrastructure Loans	3 million (690 million loan level)	0.863 million (690 million loan level)	0.863 million (690 million loan level)	1.125 million (690 million loan level)	1.725 million (690 million loan level)
Community Connect Grants	34.5 million	30 million	30 million	30 million	30 million
DLT Grants	26.6 million	49 million[a]	23.6 million	32 million	30 million
Broadband Loan and Grant Pilot Program	—	600 million	—	550 million	425 million

Source: CRS, based on congressional budget documents.

a. Includes an additional $20 million to help address the opioid epidemic in rural America.

FY2017

The Administration's FY2017 budget proposal requested zero funding for the broadband loan program and $39.492 million for the Community Connect broadband grant program. In the FY2017 budget justification, RUS stated that the budget request "shifts resources to the broadband grant program and the Distance Learning and Telemedicine grant program."[28] In 2017, RUS will focus its resources on the Broadband Opportunity Council (BOC) recommendation for a regulation rewrite of the traditional Telecommunications Loan Program to expand eligibility to allow applicants that would have been eligible for the broadband program to be eligible for this program. Currently the Telecommunications Loan program (formerly the Telephone Loan program dating back to 1949) maintains an annual loan level of $690 million, and is only available to communities with populations of 5,000 or less.

According to RUS, funds for the broadband loan program will continue to provide loans in 2015 and 2016 for the costs of construction, improvement, and acquisition of facilities and equipment to provide broadband service to eligible rural communities. The funding in 2016 will provide for approximately three loans for the deployment of broadband infrastructure. No carryover funds will be available for 2017.

[28] 2017 USDA Budget Explanatory Notes for Committee on Appropriations, p. 31-34, available at http://www.obpa.usda.gov/31rus2017notes.pdf.

The FY2017 request of $39.492 million for the Community Connect broadband grant program is almost four times the FY2016 level. According to RUS, funding will support approximately 7 broadband grants in 2016 and 19 broadband grants in 2017.

On April 19, 2016, the House Appropriations Committee approved the FY2017 Agriculture Appropriations Act (H.R. 5054; H.Rept. 114-531). The bill provided $4.56 million to subsidize a loan level of $20 million for the broadband loan program, and $33 million for the Community Connect grant program. According to the bill report, priority for the broadband loan program is to promote broadband availability in those areas where there is not otherwise a business case for private investment in a broadband network. RUS is directed to focus on projects that bring broadband service to underserved households and areas. Additionally, the committee noted that tribal communities continue to struggle with gaining access to broadband. USDA is encouraged to provide a report that identifies the specific challenges Indian Tribal Organizations (ITOs) have in gaining access to broadband and to provide a plan for addressing these challenges, including how the Community Connect program can assist ITOs.

On May 19, 2016, the Senate Appropriations Committee approved its version of the FY2017 Agriculture Appropriations Act (S. 2956; S.Rept. 114-259). The bill provided $4.5 million to subsidize a loan level of $27.043 million for the broadband loan program, and $10.372 million for the Community Connect grant program. Regarding the broadband loan program, the committee stated

> Recognizing the positive changes the Agricultural Act of 2014 made to the Rural Broadband Access Loans and Loan Guarantees programs, the Committee continues to encourage the Department to implement a comprehensive rural broadband strategy including investment in advanced networks that will meet the needs of a 21st century economy. However, the Committee is concerned that the Department of Agriculture has not prioritized funding on cost-effectiveness on a per-household basis or on the affordability of the service being provided to consumers as factors in the awards process. The Committee believes that the best way to ensure that funds under this program are spent to promote affordable broadband availability in those unserved and underserved areas, where there is not otherwise a business case for private investment, is to prioritize awards that reach as many unserved and underserved Americans as possible for each dollar spent and to ensure that affordable service is provided by award recipients. As such, the Committee directs the Department of Agriculture to develop criteria for the consideration of awards under this program that include the cost-effectiveness of award proposals on a per-household basis and the affordability of broadband service to potential subscribers.

Regarding the Community Connect Program's Minimum Broadband Service benchmark, the committee expressed the concern that the program is not in step with current needs and industry standards, and encouraged USDA to increase the program's Minimum Broadband Service definition, which will enable more rural communities to be eligible for Community Connect grants.

The Consolidated Appropriations Act, 2017 (P.L. 115-31) provided $4.5 million to subsidize a broadband loan level of $27.043 million, $34.5 million to Community Connect broadband grants, and $26.6 million for DLT grants. The Explanatory Statement accompanying P.L. 115-31 directed that $1.6 million of the funds for DLT grants be used to provide for upgrades to the equipment and facilities of ambulances (and other emergency transportation vehicles) and to medical facilities, such as hospitals and community health centers.

For the Telecommunications Infrastructure Loan and Loan Guarantee program, the Administration requested a loan level of $345 million in direct Treasury loans and $345 million in FFB loans. The Administration requested an appropriation (budget authority) of $3 million to

subsidize the Treasury loan level, and $11 million in budget authority to subsidize modification of existing Treasury loans (thereby offering current borrowers reduced interest rates).

Both the House and Senate Appropriations Committees (H.R. 5054/H.Rept. 114-531; S. 2956/ S.Rept. 114-259) approved the Administration-requested FY2017 loan level ($345 million for Treasury loans and $345 million for FFB loans) and approved the budget authority request of $3 million to subsidize the Treasury loan level. However, neither the House nor Senate Appropriations Committees approved the Administration's request for $11 million to support loan modifications.

The Consolidated Appropriations Act, 2017 (P.L. 115-31) provided an appropriation of $3.071 million for direct treasury loans to support a total loan level of $690 million for the Telecommunications Infrastructure Loan Program.

FY2018

The Administration's FY2018 budget proposal requested the following for RUS broadband programs:

- Rural Broadband Access Loans—$4.5 million in budget authority to subsidize a broadband loan level of $27 million. According to the budget proposal, this funding level will provide for approximately 3 loans in FY2018.[29]
- Telecommunications Infrastructure Loans—$0.863 million in budget authority to subsidize a loan level of $690 million ($345 million for Treasury loans and $345 million for FFB loans). The subsidy is for Treasury loans. According to the budget proposal, this funding level will provide for approximately 40 loans in FY2018.[30]
- Community Connect and DLT grants—for FY2018, the Administration is proposing transferring Community Connect and DLT grants into a new $162 million "Rural Economic Infrastructure Program," which will also include Rural Development Community Facilities grants and Home Repair grants. Up to $80 million will be directed toward the Appalachian region. According to the Administration, the new account "combines the Rural Development grant programs into one account to provide the Administration with the flexibility to place resources where significant impact can be made for economic infrastructure development."[31]

On July 12, 2017, the House Appropriations Committee approved the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2018 (H.R. 3268; H.Rept. 115-232). The bill provided $4.521 million to subsidize a loan level of $26.991 million for the broadband loan program. Funding provided for the broadband loan program was intended to promote availability in those areas where there is not otherwise a business case for private investment in a broadband network. The committee directed RUS to focus expenditures on projects that bring broadband service to underserved households and areas.

[29] 2018 USDA Budget Explanatory Notes for Committee on Appropriations, Rural Utilities Service, p. 31-34, available at https://www.obpa.usda.gov/31rusexnotes2018.pdf.

[30] Ibid., p. 31-34.

[31] 2018 USDA Budget Explanatory Notes for Committee on Appropriations, Rural Development, p. 28-18, available at https://www.obpa.usda.gov/28rdexnotes2018.pdf.

The House bill provided $122.692 million for the new Rural Economic Infrastructure Account (24% below the Administration request), which would include both Community Connect and DLT grants, along with Community Facilities grants and Home Repair grants. The bill included language requiring at least 15% of the account resources ($18.4 million) be allocated to each program area. The committee noted that tribal communities continue to struggle with gaining access to broadband service, and encouraged the Secretary to provide a report that identifies the specific challenges Indian Tribal Organizations (ITOs) have in gaining access to broadband service and provide a plan for addressing these challenges, including how the Community Connect program can assist ITOs.

Regarding telecommunications loans, the House matched the Administration proposal, providing a loan level of $690 million ($345 million in direct Treasury loans and $345 million in FFB loans) with an appropriation of $0.863 million to subsidize direct Treasury loans.

Additionally, the House Appropriations Committee report directed USDA to continue coordinating with the FCC, NTIA, and other related federal agencies to ensure that policies tied to one federal program do not undermine the objectives and functionality of another. The committee directed the department to prepare a report, in collaboration with the FCC and DOC, detailing areas of responsibility toward addressing rural broadband issues. The report shall include, but not be limited to, how the programs work complimentarily to one another; how they address broadband issues in unserved and underserved areas, including tribal lands; identify barriers to infrastructure investment in rural areas and tribal lands; data speeds which fixed, wireless, and mobile broadband users in rural areas and tribal lands experience; and cost estimates to increase speeds to 25 Mbps in unserved communities and communities currently being served by speeds less than 25 Mbps.

On July 20, 2017, the Senate Appropriations Committee approved its version of the FY2018 agriculture appropriations bill (S. 1603; S.Rept. 115-131). The bill provided $4.53 million to subsidize a loan level of $27.043 million for the broadband loan program, $30 million for the Community Connect grant program, and $26.6 million for DLT grants. Unlike the House and the Administration request, the committee did not include funding for Rural Economic Infrastructure grants. For telecommunications loans, the Senate matched the House bill and the Administration proposal, providing a loan level of $690 million ($345 million in direct Treasury loans and $345 million in FFB loans) with an appropriation of $0.863 million to subsidize direct Treasury loans.

Regarding the broadband loan program, the committee encouraged RUS to focus expenditures on projects that bring broadband service to currently unserved households, and directed RUS to report back to the committee on administrative efforts to eliminate duplicative or overbuilding of broadband technology. The committee also recommended that USDA explore a pilot grant program to demonstrate the use of multistrand fiber-optic cable that exists as part of electrical transmission infrastructure to provide state-of-the-art broadband services to currently underserved rural schools and medical centers within a mile of the existing cable.

The Consolidated Appropriations Act, 2018 (P.L. 115-141) provided $5 million to subsidize a broadband loan level of $29.851 million, $30 million to Community Connect broadband grants, and $49 million for DLT grants, which included an additional $20 million to address the opioid epidemic in rural America. P.L. 115-141 also appropriated $600 million to RUS to "conduct a new broadband loan and grant pilot program."

FY2019

The Administration's FY2019 budget proposal requested the following for RUS broadband programs:

- Rural Broadband Access Loans—$4.5 million in budget authority to subsidize a broadband loan level of $23.149 million. According to the budget proposal, this funding level will provide for approximately three loans in FY2019.[32]
- Telecommunications Infrastructure Loans and Loan Guarantees—$0.863 million in budget authority to subsidize a loan level of $690 million ($172.6 million for Treasury loans and $517.4 million for FFB loans). The subsidy is for Treasury loans. According to the budget proposal, this funding level will provide for approximately 30 loans in FY2019.[33]
- Community Connect Grants—$30 million, which will support approximately 13 broadband grants in FY2019.[34]
- Distance Learning and Telemedicine Grants—$23.6 million, which will support approximately 72 projects in FY2019.[35]

On May 16, 2018, the House Appropriations Committee approved the FY2019 Agriculture Appropriations bill (H.R. 5961; H.Rept. 115-706). The bill would provide the following:

- Rural Broadband Access Loans—$5.83 million in budget authority to subsidize a broadband loan level of $29.851 million.
- Telecommunications Infrastructure Loans and Loan Guarantees—$1.125 million in budget authority to subsidize direct Treasury loans set at a level of $465 million. Along with a loan level $225 million for FFB guaranteed loans, the total loan level is $690 million.
- Community Connect Grants—$30 million.
- Distance Learning and Telemedicine Grants—$32 million.
- Broadband Loan and Grant Pilot Program—$550 million. This appropriation would continue the pilot program that was funded (at $600 million) in the FY2018 Consolidated Appropriations Act, 2018 (P.L. 115-141).

In the committee report, the committee expressed its view that "it is important for Departments to avoid efforts that could duplicate existing networks built by private investment or those built leveraging and utilizing other federal programs." As such, the committee "directs the Secretary of Agriculture to coordinate with the Federal Communications Commission (FCC) and the National Telecommunications Information Administration (NTIA) to ensure wherever possible that broadband loans and grants issued under the pilot program are being targeted to areas that are currently unserved."

The committee also noted that tribal communities continue to struggle with gaining access to broadband service, and encouraged the Secretary to provide a report that identifies the specific challenges Indian Tribal Organizations (ITOs) have in gaining access to broadband service and provide a plan for addressing these challenges, including how the Community Connect program can assist ITOs.

On May 24, 2018, the Senate Appropriations Committee approved its FY2019 Agriculture Appropriations bill (S. 2976; S.Rept. 115-259). The bill would provide the following:

[32] 2019 USDA Budget Explanatory Notes for Committee on Appropriations, Rural Utilities Service, p. 31-29, available at https://www.obpa.usda.gov/FY19explan_notes.html.

[33] Ibid., p. 31-21.

[34] Ibid., p. 31-30.

[35] Ibid., p. 31-29.

- Rural Broadband Access Loans—$5.83 million in budget authority to subsidize a broadband loan level of $29.851 million.
- Telecommunications Infrastructure Loans and Loan Guarantees—$1.725 million in budget authority to subsidize direct Treasury loans set at a level of $345 million. Along with a loan level of $345 million for FFB guaranteed loans, the total loan level is $690 million.
- Community Connect Grants—$30 million.
- Distance Learning and Telemedicine Grants—$30 million.
- Broadband Loan and Grant Pilot Program—$425 million.

The committee encouraged RUS to focus expenditures on projects that bring broadband service to currently unserved households, and directed RUS to report back to the committee on administrative efforts to eliminate duplicative or overbuilding of broadband technology. The committee also recommended that USDA explore a pilot grant program to demonstrate the use of multistrand fiber-optic cable that exists as part of electrical transmission infrastructure to provide state-of-the-art broadband services to currently underserved rural schools and medical centers within a mile of the existing cable; encouraged RUS to coordinate with the FCC and other relevant federal entities when making determinations of sufficient broadband access, to ensure the most accurate and up-to-date broadband coverage data are used, while being cognizant of potential problems of overbuilding; encouraged the Secretary to utilize appropriate grant program funds to locate buried, antiquated infrastructure facilities prior to construction of new utilities infrastructure financed by RUS; and urged RUS to ensure the agency's criteria and application processes provide for fair consideration of open access projects by accounting for the unique structures and opportunities such projects present in advancing broadband deployment in unserved and underserved communities.

Past Criticisms of RUS Broadband Programs

RUS broadband programs have been awarding funds to entities serving rural communities since FY2001. Since their inception, a number of criticisms have emerged.

Loan Approval and Application Process

Perhaps the major criticism of the broadband loan program was that not enough loans are approved, thereby making it difficult for rural communities to take full advantage of the program. As of June 22, 2009, the broadband loan program received 225 applications, requesting a total of $4.7 billion in loans. Of these, 97 applications were approved (totaling $1.8 billion), 120 were returned (totaling $2.7 billion), and 8 are pending (totaling $170 million).[36] According to RUS officials, 28% of available loan money was awarded in 2004, and only 5% of available loan money was awarded in 2005.[37]

The loan application process has been criticized as being overly complex and burdensome, requiring applicants to spend months preparing costly market research and engineering assessments. Many applications are rejected because the applicant's business plan is deemed insufficient to support a commercially viable business. The biggest reason for applications being returned has been insufficient credit support, whereby applicants do not have sufficient cash-on-

[36] Private communication, USDA, June 23, 2009.

[37] GAO, *Broadband Deployment is Extensive throughout the United States, but It Is Difficult to Assess the Extent of Deployment Gaps in Rural Areas*, p. 33.

hand (one year's worth is required in most cases). The requirement for cash-on-hand is viewed as particularly onerous for small start-up companies, many of whom lack sufficient capital to qualify for the loan. Such companies, critics assert, may be those entities most in need of financial assistance.

In report language to the FY2006 Department of Agriculture Appropriations Act (P.L. 109-97), the Senate Appropriations Committee (S.Rept. 109-92) directed the RUS "to reduce the burdensome application process and make the program requirements more reasonable, particularly in regard to cash-on-hand requirements." The committee also directed USDA to hire more full-time employees to remedy delays in application processing times.

At a May 17, 2006, hearing held by the Senate Committee on Agriculture, Nutrition, and Forestry, the Administrator of the RUS stated that RUS is working to make the program more user friendly, while at the same time protecting taxpayer investment:

> As good stewards of the taxpayers' money, we must make loans that are likely to be repaid. One of the challenges in determining whether a proposed project has a reasonable chance of success is validating the market analysis of the proposed service territory and ensuring that sufficient resources are available to cover operating expenses throughout the construction period until such a time that cash flow from operations become sufficient. The loan application process that we have developed ensures that the applicant addresses these areas and that appropriate resources are available for maintaining a viable operation.[38]

According to RUS, the loan program was initially overwhelmed by applications (particularly during a two-week period in August 2003), and as the program matured, application review times have dropped.[39] On May 11, 2007, RUS released a Proposed Rule which sought to revise regulations for the broadband loan program. In the background material accompanying the Proposed Rule, RUS stated that the average application processing time in 2006 was almost half of what it was in 2003.[40]

Eligibility Criteria

Since the inception of the broadband grant and loan programs, the criteria for applicant eligibility have been criticized both for being too broad and for being too narrow. An audit report released by USDA's Office of Inspector General (IG) found that the "programs' focus has shifted away from those rural communities that would not, without Government assistance, have access to broadband technologies."[41] Specifically the IG report found that the RUS definition of rural area has been "too broad to distinguish usefully between suburban and rural communities,"[42] with the result that, as of March 10, 2005, $103.4 million in loans and grants (nearly 12% of total funding awarded) had been awarded to 64 communities located near large cities. The report cited

[38] Testimony of Jim Andrew, Administrator, Rural Utilities Service, U.S. Department of Agriculture, "Broadband Program Administered by USDA's Rural Utilities Service," full committee hearing before the Senate Committee on Agriculture, Nutrition, and Forestry, 109th Congress, May 17, 2006.

[39] Rural Utilities Service, private communication, January 18, 2007.

[40] Rural Utilities Service, Department of Agriculture, "Rural Broadband Access Loans and Loan Guarantees," Proposed Rule, *Federal Register*, Vol. 72, No. 91, May 11, 2007, p. 26744.

[41] U.S. Department of Agriculture, Office of Inspector General, Southwest Region, *Audit Report: Rural Utilities Service Broadband Grant and Loan Programs*, Audit Report 09601-4-Te, September 2005, p. I, http://www.usda.gov/oig/webdocs/09601-04-TE.pdf.

[42] Ibid., p. 6.

examples of affluent suburban subdivisions qualifying as rural areas under the program guidelines and receiving broadband loans.[43]

On the other hand, eligibility requirements have also been criticized as too narrow. For example, the limitation of assistance only to communities of 20,000 or less in population excludes small rural towns that may exceed this limit, and also excludes many municipalities seeking to deploy their own networks.[44] Similarly, per capita income requirements can preclude higher income communities with higher costs of living (e.g., rural Alaska), and the limitation of grant programs only to underserved areas excludes rural communities with existing but very limited broadband access.[45]

Loans to Communities With Existing Providers

The IG report found that RUS too often has given loans to communities with existing broadband service. The IG report found that "RUS has not ensured that communities without broadband service receive first priority for loans," and that although RUS has a system in place to prioritize loans to unserved communities, the system "lacks a cutoff date and functions as a rolling selection process—priorities are decided based on the applicants who happen to be in the pool at any given moment."[46] The result is that a significant number of communities with some level of preexisting broadband service have received loans. According to the IG report, of 11 loans awarded in 2004, 66% of the associated communities served by those loans had existing service. According to RUS, 31% of communities served by all loans (during the period 2003 through early 2005) had preexisting competitive service (not including loans used to upgrade or expand existing service).[47] In some cases, according to the IG report, "loans were issued to companies in highly competitive business environments where multiple providers competed for relatively few customers."[48] At the May 1, 2007, hearing before the House Subcommittee on Specialty Crops, Rural Development, and Foreign Agriculture, then-RUS Administrator James Andrews testified that of the 69 broadband loans awarded since the program's inception, 40% of the communities approved for funding were unserved at the time of loan approval, and an additional 15% had only one broadband provider.[49]

Awarding loans to entities in communities with preexisting competitive service raised criticism from competitors who already offer broadband to those communities. According to the National Cable and Telecommunications Association (NCTA), "RUS loans are being used to unfairly subsidize second and third broadband providers in communities where private risk capital already has been invested to provide broadband service."[50] Critics argued that providing loans in areas

[43] Ibid., p. 8.

[44] Martinez, Michael, "Broadband: Loan Fund's Strict Rules Foil Small Municipalities," *National Journal's Technology Daily*, August 23, 2005.

[45] GAO, *Broadband Deployment is Extensive throughout the United States, but It Is Difficult to Assess the Extent of Deployment Gaps in Rural Areas*, pp. 33-34.

[46] Ibid., p. 13.

[47] Ibid., p. 14.

[48] Ibid., p. 15.

[49] Testimony of James Andrew, Administrator, Rural Utilities Service, U.S. Department of Agriculture, before the Subcommittee on Specialty Crops, Rural Development, and Foreign Agriculture, House Committee on Agriculture, May 1, 2007.

[50] Letter from Kyle McSlarrow, President and CEO, National Cable & Telecommunications Association to the Honorable Mike Johanns, Secretary of the U.S. Department of Agriculture, May 16, 2006.

with preexisting competitive broadband service creates an uneven playing field and discourages further private investment in rural broadband.[51] In response, RUS stated in the IG report that its policies are in accordance with the statute, and that they address "the need for competition to increase the quality of services and reduce the cost of those services to the consumer."[52] RUS argued that the presence of a competitor does not necessarily mean that an area is adequately served, and additionally, that in order for some borrowers to maintain a viable business in an unserved area, it may be necessary for that company to also be serving more densely populated rural areas where some level of competition already exists.[53]

Follow-Up Audit by USDA Office of Inspector General

In 2008, as directed by the House Appropriations Committee (H.Rept. 110-258, FY2008 Agriculture appropriations bill), the IG reexamined the RUS broadband loan and loan guarantee program to determine whether RUS had taken sufficient corrective actions in response to the issues raised in the 2005 IG report. The IG concluded "the key problems identified in our 2005 report—loans being issued to suburban and exurban communities and loans being issued where other providers already provide access—have not been resolved."[54]

Specifically, the follow-up IG report found that between 2005 and 2008, RUS broadband borrowers providing services in 148 communities were within 30 miles of cities with 200,000 inhabitants, including communities near very large urban areas such as Chicago and Las Vegas.

The IG report also found that since 2005 "RUS has continued providing loans to providers in markets where there is already competing service."[55] Of the 37 applications approved since September 2005, 34 loans were granted to applicants in areas where one or more private broadband providers already offered service. These 34 borrowers received $873 million to service 1,448 communities. The IG report found that since 2005, 77% of communities which were expected to receive service from a project financed by an approved RUS broadband loan had at least one existing broadband provider present, 59% had two or more existing providers, and 27% had three or more existing providers.[56]

In an official response to the follow-up IG report, RUS fundamentally disagreed with the IG criticisms, stating that the loans awarded between 2005 and 2008 were provided "in a way entirely consistent with the statutory requirements of the underlying legislation governing administration of the program, the regulations and guidance issued by the Department to implement the statute, and the intent of Congress."[57] Specifically, RUS argued that its May 11, 2007, Proposed Rule, and the subsequent changes to the broadband loan and loan guarantee statute made by the 2008 farm bill, both addressed concerns over loans to nonrural areas and to communities with preexisting broadband providers. However, the Final Rule based on the Proposed Rule and the 2008 farm bill had not yet been released and implemented during the

[51] Testimony of Tom Simmons, Vice President for Public Policy, Midcontinent Communications, before Senate Committee on Agriculture, Nutrition, and Forestry, May 17, 2006.

[52] *Audit Report: Rural Utilities Service Broadband Grant and Loan Programs*, p. 17.

[53] Rural Utilities Service, private communication, January 18, 2007.

[54] U.S. Department of Agriculture, Office of Inspector General, Southwest Region, Audit Report Rural Utilities Service Broadband Loan and Loan Guarantee Program, Report No. 09601-8-Te, March 2009, p. 9.

[55] Ibid., p. 5.

[56] Ibid., pp. 5-6.

[57] Ibid., p. 14.

2005-2008 period examined by the IG, and RUS was compelled by law to continue awarding broadband loans under the existing law and rules.

During 2009 and 2010, the Rural Broadband Access Loan and Loan Guarantee program was in hiatus while RUS implemented the Broadband Initiatives Program (Recovery Act grants and loans) and developed new regulations implementing the 2008 farm bill. On March 14, 2011, the new rules were released. According to then-RUS Administrator Jonathan Adelstein, "this regulation and other measures taken by the agency have addressed all the concerns raised by the OIG," and on March 24, 2011, "the OIG notified RUS that it has closed its audits of the RUS broadband loan program."[58]

2014 GAO Report

In May 2014, GAO released its report, *USDA Should Evaluate the Performance of the Rural Broadband Loan Program*.[59] In the report, GAO analyzed rural broadband loans awarded between the years 2003 and 2013. GAO found that of the 100 loans awarded (worth $2 billion), 43% were no longer active due to 25 loans rescinded and 18 defaulted (RUS rejected 149 of the 249 applications received); that RUS loans can help promote limited broadband deployment and economic development, but performance goals do not fully align with the program's purpose; and that FCC reforms of the Universal Service Fund and intercarrier compensation have created temporary uncertainty that may be hindering investment in broadband.

To address its findings, GAO made two recommendations to the Secretary of Agriculture: evaluate loans made by RUS through the broadband loan program to identify characteristics of loans that may be at risk of rescission or default; and align performance goals under the "enhance rural prosperity" strategic objective in the Annual Performance Report to the broadband loan program's purpose, to the extent feasible.[60]

Broadband Loan Reauthorization in the Farm Bill

The Rural Broadband Access Loan and Loan Guarantee program is authorized by Section 601 of the Rural Electrification Act of 1936. Since the program was established in the 2002 farm bill, it has been subsequently reauthorized and modified by the 2008 and 2014 farm bills. The 2018 farm bill seeks to again reauthorize and modify the program, as well as addressing other RUS broadband programs and issues.

2008 Farm Bill

The 110th Congress considered reauthorization of the Rural Broadband Access Loan and Loan Guarantee program as part of the 2008 farm bill. The following are some key issues which were considered during the debate over reauthorization of the RUS broadband loan and loan guarantee program.

[58] Testimony of Jonathan Adelstein, Administrator of RUS, before the House Subcommittee on Communications and Technology, Committee on Energy and Commerce, April 1, 2011, p. 8, http://republicans.energycommerce.house.gov/Media/file/Hearings/Telecom/040111/Adelstein.pdf.

[59] Government Accountability Office, *USDA Should Evaluate the Performance of the Rural Broadband Loan Program*, May 2014, 56 pp., available at http://www.gao.gov/assets/670/663578.pdf.

[60] Ibid., pp. 31-32.

Restricting Applicant Eligibility

The RUS broadband program was criticized for excluding too many applicants due to stringent financial requirements (e.g., the requirement that an applicant have a year's worth of cash-on-hand) and an application process—requiring detailed business plans and market surveys—that some viewed as overly expensive and burdensome to complete. During the reauthorization process, Congress considered whether the criteria for loan eligibility should be modified, and whether a more appropriate balance could be found between the need to make the program more accessible to unserved and often lower-income rural areas, and the need to protect taxpayers against bad loans.

Definition of "Rural Community"

The definition of which communities qualify as "rural" had been changed twice by statute since the broadband loan program was initiated. Under the pilot program, funds were authorized under the Distance Learning and Telemedicine Program, which defines "exceptionally rural areas" (under 5,000 inhabitants), "rural areas" (between 5,000 and 10,000), and "mid-rural areas" (between 10,000 and 20,000). RUS determined that communities of 20,000 or less would be eligible for broadband loans in cases where broadband services did not already exist.

In 2002, this definition was made narrower by the Farm Security and Rural Investment Act (P.L. 107-171), which designated eligible communities as any incorporated or unincorporated place with fewer than 20,000 inhabitants, and which was outside any standard metropolitan statistical area (MSA). The requirement that communities not be located within MSA's effectively prohibited suburban communities from receiving broadband loans. However, in 2004, the definition was again changed by the FY2004 Consolidated Appropriations Act (P.L. 108-199). The act broadened the definition, keeping the population limit at 20,000, but eliminating the MSA prohibition, thereby permitting rural communities near large cities to receive loans. Thus the current definition used for rural communities is the same as what was used for the broadband pilot program, except that loans can now be issued to communities with preexisting service.

The definition of what constitutes a "rural" community is always a difficult issue for congressional policymakers in determining how to target rural communities for broadband assistance. On the one hand, the narrower the definition the greater the possibility that deserving communities may be excluded. On the other hand, the broader the definition used, the greater the possibility that communities not traditionally considered "rural" or "underserved" may be eligible for financial assistance.

A related issue is the scope of coverage proposed by individual applications. While many of the loan applications propose broadband projects offering service to multiple rural communities, RUS identified a trend toward larger regional and national proposals, covering hundreds or even more than 1,000 communities.[61] The larger the scope of coverage, the greater the complexity of the loan application and the larger the possible benefits and risks to taxpayers.

Preexisting Broadband Service

Loans to areas with competitive preexisting service—that is, areas where existing companies already provide some level of broadband—sparked controversy because loan recipients are likely to compete with other companies already providing broadband service.

[61] Rural Utilities Service, private communication, January 18, 2007.

During reauthorization, Congress was asked to more sharply define whether and/or how loans should be given to companies serving rural areas with preexisting competitive service.[62] On the one hand, some argued that the federal government should not be subsidizing competitors for broadband service, particularly in sparsely populated rural markets which may be able only to support one provider. Furthermore, keeping communities with preexisting broadband service eligible may divert assistance from unserved areas that are most in need. On the other hand, many suburban and urban areas currently receive the benefits of competition between broadband providers—competition which can potentially drive down prices while improving service and performance. It is therefore appropriate, others argued, that rural areas also receive the benefits of competition, which in some areas may not be possible without federal financial assistance. It was also argued that it may not be economically feasible for borrowers to serve sparsely populated unserved communities unless they are permitted to also serve more lucrative areas which may already have existing providers.

Technological Neutrality

The 2002 farm bill (P.L. 107-171) directed RUS to use criteria that are "technologically neutral" in determining which projects to approve for loans. In other words, RUS is prohibited from typically valuing one broadband technology over another when assessing loan applications. As of November 10, 2008, 37% of approved and funded projects employed fiber-to-the-home technology, 17% employed DSL, 25% fixed wireless, 19% hybrid fiber-coaxial (cable), and 2% broadband over powerlines (BPL).[63] No funding has been provided for projects utilizing satellite broadband.[64]

While decisions on funded projects were required to be technologically neutral, RUS (through the Secretary of Agriculture) had the latitude to determine minimum required data transmission rates for broadband projects eligible for funding. According to the statute, "the Secretary shall, from time to time as advances in technology warrant, review and recommend modifications of rate-of-data transmission criteria for purposes of the identification of broadband service technologies."

Some argued that the minimum speed thresholds should be raised to ensure that rural areas receive "next-generation" broadband technologies with faster data rates capable of more varied and sophisticated applications. On the other hand, significantly raising minimum data rates could exclude certain technologies—for example, typical data transmission rates for fiber and some wireless technologies exceed what is offered by "current generation" technologies such as DSL and cable. Proponents of keeping the minimum threshold at a low level argued that underserved rural areas are best served by any broadband technology that is economically feasible to deploy, regardless of whether it is "next" or "current" generation.

---

[62] The statute (7 U.S.C. 950bb) allows States and local governments to be eligible for loans only if "no other eligible entity is already offering, or has committed to offer, broadband services to the eligible rural community."

[63] USDA, Rural Utilities Service, "FCC/USDA Rural Broadband Educational Workshop," power point presentation, November 20, 2008, http://www.usda.gov/rus/telecom/broadband/workshops/FCC_USDABroadbandWorkshopNov20.pdf.

[64] According to the GAO, satellite companies state that RUS's broadband loan program requirements "are not readily compatible with their business model or technology," and that "because the agency requires collateral for loans, the program is more suited for situations where the providers, rather than individual consumers, own the equipment being purchased through the loan. Yet, when consumers purchase satellite broadband, it is common for them to purchase the equipment needed to receive the satellite signal, such as the reception dish." Satellite companies argue that in some rural areas, satellite broadband might be the most feasible and cost-effective solution. See GAO, Broadband Deployment is Extensive throughout the United States, but It Is Difficult to Assess the Extent of Deployment Gaps in Rural Areas, pp. 34-35.

P.L. 110-246

The Food, Conservation, and Energy Act of 2008 became law on June 18, 2008 (P.L. 110-246). Section 6110, "Access to Broadband Telecommunications Services in Rural Areas," reauthorized the RUS broadband loan and loan guarantee program and addressed many of the criticisms and issues raised during the reauthorization process. The following summarizes broadband-related provisions that changed previous law.

Eligibility and Selection Criteria

- Defines rural area as any area other than (1) a city or town that has a population of greater than 20,000 and (2) an urbanized area contiguous and adjacent to a city or town with a population greater than 50,000. The Secretary may, by regulation only, consider not to be rural an area that consists of any collection of census blocks contiguous to each other with a housing density of more than 200 housing units per square mile and that is contiguous with or adjacent to an existing boundary of a rural area.
- Provides that the highest priority is to be given to applicants that offer to provide broadband service to the greatest proportion of households currently without broadband service. Eligible entities are required to submit a proposal to the Secretary that meets the requirements for a project to offer to provide service to a rural area and agree to complete build out of the broadband service within three years.
- Prohibits any eligible entity that provides telecommunications or broadband service to at least 20% of the households in the United States from receiving an amount of funds under this section for a fiscal year in excess of 15% of the funds authorized and appropriated for the broadband loan program.
- Directs the Secretary of Agriculture "from time to time as advances in technology warrant," to review and recommend modifications in rate-of-data transmission criteria for the purpose of identifying eligible broadband service technologies. At the same time, the Secretary is prohibited from establishing requirements for bandwidth or speed that have the effect of precluding the use of evolving technologies appropriate for use in rural areas.

Loans to Communities With Existing Providers

- Prohibits the Secretary from making a loan in any area where there are three or more incumbent service providers unless the loan meets all of the following requirements: (1) the loan is to an incumbent service provider that is upgrading service in that provider's existing territory; (2) the loan proposes to serve an area where not less than 25% of the households are offered service by not more than 1 provider; and (3) the applicant is not eligible for funding under another provision of the Rural Electrification Act. Incumbent service provider is defined as an entity providing broadband service to not less than 5% of the households in the service territory proposed in the application. Also prohibits the Secretary from making a loan in any area where not less than 25% of the households are offered broadband service by not more than one provider unless a prior loan has been made in the same area.

Financial Requirements

- Directs the Secretary to consider existing recurring revenues at the time of application in determining an adequate level of credit support. Requires the Secretary to ensure that the type, amount, and method of security used to secure a loan or loan guarantee is commensurate to the risk involved with the loan or loan guarantee, particularly when the loan or loan guarantee is issued to a financially healthy, strong, and stable entity. The Secretary is also required, in determining the amount and method of security, to consider reducing the security in areas that do not have broadband service.
- Allows the Secretary to require an entity to provide a cost-share in an amount not to exceed 10% of the amount of the loan or loan guarantee.
- Retains the current law rate of interest for direct loans—which is the rate equivalent to the cost of borrowing to the Department of the Treasury for obligations of comparable maturity or 4%.
- Directs that loan or loan guarantee may have a term not to exceed 35 years if the Secretary determines that the loan security is sufficient.
- In case of substantially underserved trust areas (for example, Indian lands), where the Secretary determines a high need exists for the benefits of the program, the Secretary has the authority to provide loans with interest rates as low as 2% and may waive nonduplication restrictions, matching fund requirements, credit support requirements, or other regulations.

Loan Application Requirements

- Allows the Secretary to require an entity that proposes to have a subscriber projection of more than 20% of the broadband service market in a rural area to submit a market survey. However, the Secretary is prohibited from requiring a market survey from an entity that projects to have less than 20% of the broadband market.
- Requires public notice of each application submitted, including the identity of the applicant, the proposed area to be served, and the estimated number of households in the application without terrestrial-based broadband. Authorizes the Secretary to take steps to reduce the costs and paperwork associated with applying for a loan or loan guarantee under this section by first-time applicants, particularly those who are smaller and start-up internet providers.
- Allows the Secretary to establish a preapplication process under which a prospective applicant may seek a determination of area eligibility. Provides that an application, or a petition for reconsideration of a decision on such an application, that was pending on the date 45 days before enactment of this act and that remains pending on the date of enactment of this act is to be considered under eligibility and feasibility criteria in effect on the original date of submission of the application.

Other Provisions

- Authorizes the Rural Broadband Access Loan and Loan Guarantee program at $25 million to be appropriated for each of fiscal years 2008 through 2012.

- Requires that the Secretary annually report to Congress on the rural broadband loan and loan guarantee program. The annual report is to include information pertaining to the loans made, communities served and proposed to be served, speed of broadband service offered, types of services offered by the applicants and recipients, length of time to approve applications submitted, and outreach efforts undertaken by USDA.
- Section 6111 provides for a National Center for Rural Telecommunications Assessment. The center is to assess the effectiveness of broadband loan programs, work with existing rural development centers to identify appropriate policy initiatives, and provide an annual report that describes the activities of the center, the results of research carried out by the center, and any additional information that the Secretary may request. An appropriation of $1 million is authorized for each of the fiscal years 2008 through 2012.
- Section 6112 directs the Chairman of the Federal Communications Commission (FCC), in coordination with the Secretary, to submit to Congress a report describing a comprehensive rural broadband strategy. Requires the report to be updated during the third year after enactment.

Implementation of P.L. 110-246

During 2009 and 2010, the Farm Bill Broadband Loan Program was on hiatus as RUS implemented the Broadband Initiatives Program (BIP) established under the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). At the same time, final regulations implementing the broadband loan program as reauthorized by the 2008 farm bill were on hold and were being refined to reflect, in part, RUS experience in implementing BIP. Subsequently, on March 14, 2011, an Interim Rule and Notice was published in the *Federal Register* setting forth the rules and regulations for the broadband loan program as reauthorized by P.L. 110-246.[65] While the rule was immediately effective, RUS accepted public comment before ultimately releasing a final rule.

Meanwhile, pursuant to Section 6112 of P.L. 110-246, the FCC released on May 22, 2009, its report on rural broadband strategy, entitled *Bringing Broadband to Rural America*.[66] The report made a series of recommendations including improved coordination of rural broadband efforts among federal agencies, states, and communities; better assessment of broadband needs, including technological considerations and broadband mapping and data; and overcoming challenges to rural broadband deployment.

2014 Farm Bill

On January 27, 2014, the conference report for the Agricultural Act of 2014 was filed (H.Rept. 113-333). The conference agreement was approved by the House on January 29, approved by the Senate on February 4, and signed into law (P.L. 113-79) by the President on February 7, 2014.

P.L. 113-79 amended Section 601 of the Rural Electrification Act of 1936 (7 U.S.C. 950bb) to reauthorize the Rural Broadband Access Loan and Loan Guarantee Program through FY2018. P.L. 113-79 also included provisions to redefine project area eligibility with respect to existing broadband service, increase the program's transparency and reporting requirements, define a

[65] U.S. Department of Agriculture, Rural Utilities Service, "7 CFR Part 1738, Rural Broadband Access Loans and Loan Guarantees," 76 Federal Register 13770-13796, March 14, 2011.

[66] Michael J. Copps, Acting Chairman, Federal Communications Commission, Bringing Broadband to Rural America: Report on a Rural Broadband Strategy, May 22, 2009, 83 pp.

minimum level of broadband service, require a study on the gathering and use of address-level data, and establish a new Rural Gigabit Network Pilot Program. The conference agreement did not include a Senate bill proposal (S. 954) to create a new grant component to the existing broadband loan and loan guarantee program, nor did the conference agreement adopt the Senate bill's broadening of the definition for eligible rural areas.

Specifically, Section 6104 of P.L. 113-79 made the following changes to the Rural Broadband Access Loan and Loan Guarantee program:

- Project area eligibility—provides that an eligible area is one where not less than 15% of the households in the proposed service territory are unserved or have service levels below the minimum acceptable level of broadband service (which is set at 4 Mbps/1 Mbps).
- Priority—directs RUS to give the highest priority to applicants that offer to provide broadband service to the greatest proportion of unserved households or households that do not have residential broadband service that meets the minimum acceptable level of broadband service, as certified by the affected community, city, county, or designee; or demonstrated on the broadband map of the affected state if the map contains address-level data, or the National Broadband Map if address-level data are unavailable. RUS shall provide equal consideration to all qualified applicants, including those that have not previously received grants, loans, or loan guarantees. Also gives priority to applicants that offer to provide broadband service not predominantly for business service, but if at least 25% of customers in the proposed service territory are commercial interests.
- Evaluation period—directs RUS to establish not less than two evaluation periods for each fiscal year to compare loan and loan guarantee applications and to prioritize loans and loan guarantees to all or part of rural communities that do not have residential broadband service that meets the minimum acceptable level of broadband service.
- Market survey requirement—provides that survey information must be certified by the affected community, city, county, or designee; and demonstrated on the broadband map of the affected state if the map contains address-level data, or the National Broadband Map if address-level data are unavailable.
- Notice requirement—directs RUS to maintain a fully searchable database on the internet that contains a list of each entity that has applied for assistance, the status of each application, and a detailed description of each application. For each entity receiving assistance, the database shall provide the name of the entity, the type of assistance being received, the purpose for which the entity is receiving the assistance, and each semiannual report submitted.
- Reporting—requires semiannual reports from loan recipients for three years after completion of the project describing in detail the use of the assistance, and the progress toward fulfilling project objectives.
- Default and deobligation—directs RUS to establish written procedures for recovering funds from loan defaults, deobligating awards that demonstrate an insufficient level of performance or fraudulent spending, awarding those funds to new or existing applicants, and minimizing overlap among programs.
- Service area assessment—directs RUS to promptly post on its website a list of the census block groups that an applicant proposes to service. RUS will provide

not less than 15 days for broadband service providers to voluntarily submit information about the broadband services that the providers offer in the groups or tracts listed so that RUS may assess whether the applications submitted meet the eligibility requirements. If no broadband service provider submits this information, RUS will consider the number of providers in the group or tract to be established by reference to the most current National Broadband Map or any other data RUS may collect or obtain through reasonable efforts.

- Definition of broadband service—establishes "the minimum acceptable level of broadband service" as at least 4 Mbps downstream and 1 Mbps upstream. At least once every two years, the Secretary shall review and may adjust this speed definition and may consider establishing different minimum speeds for fixed and mobile (wireless) broadband.
- Terms and conditions—in determining the terms and conditions of assistance, the Secretary may consider whether the recipient would be serving an area that is unserved (or has service levels below the minimum acceptable level of broadband service), and if so, can establish a limited initial deferral period or comparable terms necessary to achieve the financial feasibility and long-term sustainability of the project.
- Report to Congress—adds requirements to the content of the annual report to Congress, including the number of residences and businesses receiving new broadband services; network improvements, including facility upgrades and equipment purchases; average broadband speeds and prices on a local and statewide basis; any changes in broadband adoption rates; and any specific activities that increase high-speed broadband access for educational institutions, health care providers, and public safety service providers.
- Reauthorization—reauthorizes the broadband loan and loan guarantee program through FY2018 at the current level of $25 million per year.
- Study on providing effective data for the National Broadband Map—directs USDA, in consultation with DOC and the FCC, to conduct a study of the ways data collected by RUS could most effectively be shared with the FCC to support the development and maintenance of the National Broadband Map. The study shall include a consideration of the circumstances under which address-level data could be collected by RUS and appropriately shared with the FCC.

In addition, Section 6105 authorized a new Rural Gigabit Network Pilot Program. Specifically, USDA was authorized to provide grants, loans, or loan guarantees for projects that would extend ultra-high-speed broadband service (defined as 1 gigabit per second downstream capacity) to rural areas where ultra-high-speed service is not provided in any part of the proposed service territory. The pilot program was authorized at $10 million per year for the years FY2014 through FY2018. However, no funding was appropriated for this pilot program over that period, and the Rural Gigabit Network Pilot Program was not implemented.

Implementation of P.L. 113-79

On July 30, 2015, the RUS published in the *Federal Register* the interim rule (7 C.F.R. part 1738) implementing the Rural Broadband Access Loan and Loan Guarantee Program as reauthorized by

the February 7, 2014 enactment of the Agricultural Act of 2014 (P.L. 113-79).[67] Publication of the interim rule allowed the program to go forward, initially with two application periods per year. The interim rule was made final on June 9, 2016.

2018 Farm Bill

With the 2014 farm bill expiring on September 30, 2018, the 115th Congress is considering reauthorization of the RUS broadband loan and loan guarantee program and other broadband-related provisions in the 2018 farm bill.

House

On April 12, 2018, H.R. 2, the Agriculture and Nutrition Act of 2018, was introduced by Representative Conaway. Subtitle B of Title VI ("Connecting Rural Americans to High Speed Broadband") would reauthorize the Rural Broadband Access Loan and Loan Guarantee Program and make a number of changes to the RUS rural broadband programs.[68] On April 18, 2018, the House Agriculture Committee approved H.R. 2 (H.Rept. 115-661) with amendments. On June 21, 2018, the House passed H.R. 2

As passed by the House, Subtitle B of Title VI contains the following sections:

- requires the Secretary to set a minimum acceptable standard of broadband service of 25 Mbps/3 Mbps, and to establish projections of minimum acceptable standards of broadband service for 5, 10, 15, 20, and 30 years into the future. The Secretary shall review and may adjust those minimum levels at least once every two years. Projects eligible for a rural broadband loan or loan guarantee must provide broadband service at the minimum level, and must be determined capable of meeting future minimum speed standards (either projected or actual, whichever is lower) over the life of the loan or loan guarantee. However, if an applicant shows that it would be cost prohibitive to meet the minimum acceptable level of broadband service for the entirety of a proposed service territory due to its unique characteristics, the Secretary and the applicant may agree to utilize substitute standards for any unserved portion of the project. Section also requires RUS to issue a report on ways to incentivize use of loan guarantee programs, to streamline the RUS loan and loan guarantee programs, to identify opportunities to provide technical assistance and predevelopment planning activities, and to identify and evaluate emerging broadband technologies (§6101);
- provides $350 million for each of fiscal years 2019 to 2023 for grants to be available in combination with associated loans under the rural broadband, electric infrastructure, and telecommunications infrastructure loan and loan guarantee programs. Projects eligible for the loan/grant combinations must offer retail broadband service to rural households, serve an area with a density of less than 12 service points per road mile, provide service that meets the minimum broadband service standard set by the Secretary, provide service in an area where no incumbent provider delivers fixed terrestrial broadband service at or above the

[67] Department of Agriculture, Rural Utilities Service, "Rural Broadband Access Loans and Loan Guarantees," Interim rule, 80 *Federal Register* 45397-45413, July 30, 2015, available at https://www.gpo.gov/fdsys/pkg/FR-2015-07-30/pdf/2015-18624.pdf.

[68] See House Committee on Agriculture, "Section-by-Section, H.R. 2, the Agriculture and Nutrition Act of 2018," pp. 41-43, available at https://agriculture.house.gov/uploadedfiles/agriculture_and_nutrition_act_of_2018_section_by_section.pdf.

minimum broadband speed, and provide service in an area where no eligible borrower (other than the applicant) has outstanding RUS telecommunications debt or is subject to a current RUS telecommunications grant agreement. The maximum federal share of the total project cost varies by the density of the project service area: no more than 75% for an area with a density of less than 4 service points per road mile, 50% for a density between 4 and 9, and 25% for a density between 9 and 12. For rural broadband borrowers only, the Secretary may provide grant funds in the form of payment assistance to reduce the borrower's interest rate or periodic principal payments, or both (§6102);

- requires the Secretary to provide both a direct lending program and a guaranteed lending program to finance rural broadband projects (§6103);
- allows a recipient of grants, loans, or loan guarantees provided by the Office of Rural Development to use not more than 10% of the amount for rural broadband infrastructure projects, including both retail and nonretail activities (§6104(a));
- allows a recipient of electric grants, loans, or loan guarantees to set aside not more than 10% of the amount for retail broadband service which must meet the minimum acceptable level of broadband service (§6104(b));
- authorizes from fiscal years 2019 through 2023 an Innovative Broadband Advancement Program (replacing the Rural Gigabit Network Pilot Program),[69] which would provide grants, loans, or both to eligible entities for the purpose of demonstrating innovative broadband technologies or methods of broadband deployment that significantly reduce the cost of broadband deployment (§6105);
- requires the Secretary to submit a single report to Congress describing all the broadband financing activities administered by the Secretary (§6106);
- permits the Secretary to obligate funds to approved applications for rural broadband and telecommunications infrastructure loans and loan guarantees while conditioning the disbursement of funds on the successful completion of environmental, historic, or other reviews of the project (§6107);
- requires one application period per year (currently set at two per year) (§6108);
- eliminates the priority for applicants with a proposed service area where at least 25% of the customers are commercial interests (§6109);
- provides five years for applicants to complete the buildout of a project (currently set at three years) (§6110);
- permits the telephone loan program to refinance rural broadband loans and permits the broadband loan program to refinance other telecommunications loans (§6111);
- eliminates reporting requirements for location of residences and businesses and for broadband adoption rates (§6112);
- sets an authorization level of $150 million for each of fiscal years 2019 through 2023, and delays the termination of authority to make loans and loan guarantees until September 30, 2023 (§6113);
- authorizes RUS to make rural broadband loans or loan guarantees to middle mile infrastructure projects (§6114); and

[69] The Rural Gigabit Network Pilot program was authorized in the 2014 farm bill. However, no funding was appropriated for this pilot program, and it was not implemented.

- requires the Secretary, beginning on October 1, 2020, to consider any portion of a service territory subject to an outstanding grant agreement as unserved for the purposes of broadband loan programs if broadband service is not provided at a minimum of 10 Mbps/1 Mbps, unless the broadband provider has begun or already constructed broadband facilities in that area which would meet the minimum acceptable broadband service standard (§6115).

Other broadband-related provisions would

- reauthorize the DLT program through FY2023 at $82 million per year (§6002);
- require federal broadband program coordination between USDA and NTIA, and between USDA and the FCC, and require a report to Congress from all three agencies on how best to coordinate federally supported broadband programs and activities (§6116);
- ensure that any community that meets the definition of "rural" or "rural area" is eligible for guaranteed loans in the rural broadband program (§6202(b));
- require the Secretary to collect fees on loan guarantees in amounts that when combined with any appropriated funds equal the subsidy on such guarantees (§6203(b));
- repeal the provision authorizing the National Center for Rural Telecommunications Assessment (§6601(b)(2)); and
- streamline the Forest Service application process required to construct broadband infrastructure on federal land (§8507).

Senate

On June 11, 2018, the 2018 Senate farm bill, S. 3042, was introduced by Senator Roberts. The Agriculture Improvement Act of 2018 was approved on June 13, 2018 by the Committee on Agriculture, Nutrition, and Forestry and ordered to be reported with an amendment in the nature of a substitute favorably. On June 28, 2018, the Senate passed its version of H.R. 2.

Section 6206, "Access to broadband telecommunications services in rural areas," would amend Section 601 of the Rural Electrification Act of 1936. Changes to the Rural Broadband Access Loan and Loan Guarantee Program include the following:

- Grant Authority—includes matching grants as an eligible funding mechanism; a grant shall not exceed 50% of the development costs of the project. However, the Secretary can adjust the federal share up to 75% if the Secretary determines that the project would serve particularly remote, unserved, and low-income areas;
- Eligible Projects—provides that 90% or more of a proposed service area must be unserved or have service levels below the minimum acceptable level of broadband service (codified at 25 Mbps/3 Mbps) in order to be eligible for a grant, loan, or loan guarantee. Under current law, that threshold is 15% or more. Additionally, under H.R. 2 as passed by the Senate, eligible projects cannot have broadband service in any part of the proposed service territory by two or more incumbent service providers (current law is three or more incumbents);
- Priorities—directs the Secretary to give priority to applications that propose to provide service to unserved areas and to offer the maximum level of broadband service to the highest proportion of rural households. To identify unserved communities, the Secretary is directed to consult data from the FCC and the

NTIA, review other sources for data validation, and perform site-specific testing to verify the unavailability of residential broadband service. Also directs the Secretary to prioritize projects involving low-income, remote, and low-population areas; partnerships with state, local, and tribal governments, nonprofit institutions, community anchor institutions, private entities, and philanthropic organizations; and broadband for precision agriculture on cropland and ranchland. Eliminates priority for applicants with a proposed service area where at least 25% of the customers are commercial interests, and eliminates requirement for not less than two application evaluation periods per year;

- Buildout—changes the buildout requirement from no later than three years to no later than five years;
- Coordination—requires the Secretary to coordinate with the FCC to ensure that any grants, loans, or loan guarantees complement and do not conflict with universal service high-cost support;
- Application Process—provides that prospective applicants may seek a determination of area eligibility and directs the Secretary to provide feedback on project proposals regarding how the proposal could be changed to improve the likelihood of application approval;
- Technical Assistance and Training—the Secretary may provide technical assistance and training to help applicants prepare applications and related documentation, with this effort funded by not less than 3% or more than 5% of the annual appropriation;
- Broadband Buildout Data—as a condition of receiving assistance, the recipient of the grant, loan, or loan guarantee shall provide complete, reliable, and precise geolocation information that indicates the location of new broadband service that is being provided or upgraded within the service territory;
- Environmental Reviews—the Secretary may obligate, but not disperse, funding before the completion of otherwise required environmental, historical, or other types of reviews if the Secretary determines that a subsequent site-specific review shall be adequate and easily accomplished for the location of towers, poles, or other broadband facilities in the service area without compromising the project or the required reviews;
- Authorization—sets an authorization level of $150 million for each of fiscal years 2019 through 2023, and delays the termination of authority to make loans and loan guarantees until September 30, 2023; and
- Oversight and Accountability—at least 1% of the annual appropriation shall be set aside to conduct oversight and implement accountability measures and related activities.

Other broadband-related provisions in H.R. 2, as passed by the Senate, include the following:

- Section 6116, "Single Application for Broadband," allows for no more than 10% of any Rural Development grant, loan, or loan guarantee to be used to fund eligible projects providing broadband facilities and service;
- Section 6207, "Community Connect Grant Program," codifies the existing Community Connect Grant Program, authorizing the program at $50 million per year through FY2023. Defines an eligible service area as having broadband service capacity less than speeds of 10 Mbps download and 1 Mbps upload;

- Section 6208, "Transparency in the Telecommunications Infrastructure Loan Program," requires transparency for the Telecommunications Infrastructure Loan and Loan Guarantee Program;
- Section 6209, "Refinancing of Broadband and Telephone Loans," provides RUS with the authority to refinance telephone and broadband loans;
- Section 6301, "Distance Learning and Telemedicine," reauthorizes the DLT program at the current authorization level of $75 million per year through FY2023, and sets aside 20% of DLT grant funding for applications related to substance use disorder treatment services;
- Section 6305, "Council on Rural Community Innovation and Economic Development," includes a provision establishing an interagency Rural Broadband Integration Working Group which will make recommendations on actions federal agencies can take to identify and address regulatory barriers, incentivize investment, promote best practices, align funding decisions, and otherwise support wired broadband deployment and adoption; and
- Section 12516, "Precision Agriculture Connectivity," establishes the Task Force for Reviewing the Connectivity and Technology Needs of Precision Agriculture in the United States.

Differences Between House and Senate Bills

The following are some key differences between the House and Senate bills with respect to the rural broadband loan and loan guarantee program.

Eligible Projects

Under current law, projects eligible for rural broadband loans and loan guarantees can only (with some exceptions) serve areas in which 15% or more of households are unserved or have service levels below the minimum acceptable level of broadband service. Additionally under current law, an eligible service area can have no more than two incumbent broadband service providers. The House bill does not change the current service area eligibility threshold for rural broadband loans and loan guarantees.

On the other hand, the Senate bill would require that rural broadband loans, loan guarantees, and grants can only serve areas in which 90% or more of households are unserved or have service levels below the minimum acceptable level of broadband service. The Senate bill also provides that an eligible service area can have no more than one incumbent broadband service provider.

Grant Authority

Both the House and Senate bills add a grant component to the current farm bill broadband loan and loan guarantee program. In the House bill, grants are only available in combination with associated loans under the rural broadband, electric infrastructure, and telecommunications infrastructure loan and loan guarantee programs. Additionally, project areas must serve hard-to-reach communities—specifically areas with a density of less than 12 service points per road mile and where no incumbent provider delivers fixed terrestrial broadband service at or above the minimum broadband speed. The maximum federal share of a total project cost varies by the density of the project service area, ranging from a 25% to 75% federal share.

In the Senate bill, grants are subject to the same service area eligibility criteria as broadband loans and loan guarantees (no less than 90% unserved, no more than 1 incumbent). The maximum

federal share for a grant is 50%, although USDA can adjust the federal share up to 75% if the Secretary determines that the project would serve particularly remote, unserved, and low-income areas.

Definition of Minimum Broadband Service

Both the House and Senate bills set the minimum broadband service speed at 25 Mbps (download)/3 Mbps (upload), to be reviewed by the Secretary at least once every two years. Additionally, the House bill requires USDA to establish projections of minimum acceptable standards of broadband service for 5, 10, 15, 20, and 30 years into the future. Unless cost prohibitive, projects eligible for a rural broadband loan or loan guarantee must provide broadband service at the minimum level, and must be determined capable of meeting future minimum speed standards over the life of the loan or loan guarantee.

Middle Mile Projects

The House bill authorizes RUS to make rural broadband loans or loan guarantees to middle mile infrastructure projects, which are defined as any broadband infrastructure that does not connect directly to end user locations (including anchor institutions) and may include interoffice transport, backhaul, internet connectivity, data centers, or special access transport to rural areas. The Senate bill does not contain a middle mile infrastructure provision.

Reauthorization Levels

For rural broadband loans and loan guarantees, the House bill sets an authorization level of $150 million for each of fiscal years 2019 through 2023. Additionally, the House bill provides $350 million for each of fiscal years 2019 to 2023 for grants to be available in combination with associated loans and loan guarantees.

The Senate bill sets an authorization level for broadband loans, loan guarantees, and grants of $150 million for each of fiscal years 2019 through 2023.

Other Legislation in the 115th Congress

Aside from the 2018 farm bills and annual appropriations legislation, the following bills have been introduced into the 115th Congress that seek to impact the RUS broadband programs:

- H.R. 800 (Huffman), introduced on February 1, 2017, as the New Deal Rural Broadband Act of 2017, would establish an Office of Rural Broadband within USDA; authorize a "Breaking Ground on Rural Broadband Program" to make grants, loans, or loan guarantees to eligible entities for serving rural and underserved areas ($20 billion to remain available until September 30, 2022); establish a Tribal Broadband Assistance Program ($25 million for each of fiscal years 2017 through 2022); establish a broadband grant program to accompany the Rural Broadband Loan program; modify the Telecommunications Infrastructure Loan program by raising the threshold for an eligible rural area from 5,000 to 20,000 population and by permitting RUS to give preference to loan applications that support regional telecommunications development; and direct USDA to establish and maintain an inventory of any real property that is owned, leased, or otherwise managed by the federal government on which a broadband facility could be constructed, as determined by the Under Secretary

for Rural Broadband Initiatives. Referred to the Committee on Agriculture, and in addition to the Committees on Natural Resources and Energy and Commerce.

- H.R. 1084 (Kelly of Illinois), introduced on February 15, 2017, as the Today's American Dream Act, would direct GAO to submit to Congress a report on the efficiency and effectiveness of efforts by federal agencies to expand access to broadband service, including the RUS telecommunications and broadband programs. Referred to the Committee on Ways and Means, and in addition to the Committees on Education and the Workforce, Agriculture, Financial Services, Small Business, Energy and Commerce, the Judiciary, and Oversight and Government Reform.
- H.R. 4232 (Pocan), introduced on November 2, 2017, as the Broadband Connections for Rural Opportunities Program (BCROP) Act, would amend Section 601 of the Rural Electrification Act of 1936 (7 U.S.C. 950bb) to establish a broadband grant program to accompany the Rural Broadband Loan program. Also would raise the broadband loan program authorization from $25 million to $50 million. Referred to the Committees on Energy and Commerce and on Agriculture.
- H.R. 4291 (Stefanik), introduced on November 7, 2017, as the Precision Farming Act, would utilize Rural Utilities Service loans and loan guarantees under the rural broadband access program to provide broadband service for agricultural producers, and would provide universal service support for installation charges for broadband service for agricultural producers in order to improve precision farming and ranching. Referred to the Committees on Energy and Commerce and on Agriculture.
- H.R. 4308 (Lujan Grisham), introduced on November 8, 2017, as the Rural Broadband Expansion Act, would authorize the Rural Utility Service's Community Connect broadband grant program at $100 million for each of fiscal years 2019 through 2023. Referred to the Committees on Agriculture and on Energy and Commerce.
- H.R. 5172 (O'Halleran), introduced on March 6, 2018, would assist Indian tribes in maintaining, expanding, and deploying broadband systems. Referred to the Committee on Agriculture, and in addition to the Committee on Energy and Commerce.
- H.R. 5213 (Hartzler), introduced on March 8, 2018, would prohibit the Rural Utilities Service from providing assistance for the provision of broadband service with a download speed of less than 25 megabits per second or an upload speed of less than 3 megabits per second, and clarify the broadband loan and loan guarantee authority provided in Section 601 of the Rural Electrification Act of 1936. Referred to the Committee on Agriculture, and in addition to the Committee on Energy and Commerce.
- H.R. 6073 (Cramer), introduced on June 12, 2018, as the RURAL Broadband Act of 2018, would prohibit USDA from providing broadband loans or grants for projects that overbuild or otherwise duplicate broadband networks operated by another provider that have received universal service support from the FCC or previous broadband assistance from RUS. Referred to the Committee on Agriculture, and in addition to the Committee on Energy and Commerce.
- S. 1676 (Gillibrand), introduced on July 31, 2017, as the Broadband Connections for Rural Opportunities Program (BCROP) Act, would amend Section 601 of the

Rural Electrification Act of 1936 (7 U.S.C. 950bb) to establish a broadband grant program to accompany the Rural Broadband Loan program. Also would raise the broadband loan program authorization from $25 million to $50 million. Referred to the Committee on Agriculture, Nutrition, and Forestry.

- S. 2654 (Smith), introduced on April 12, 2018, as the Community Connect Grant Program Act of 2018, would amend the Rural Electrification Act of 1936 to authorize the Community Connect Grant Program at an annual level of $50 million per year. Defines "eligible broadband service" as operating at or above the applicable minimum download and upload speeds established by the FCC in defining the term "advanced telecommunications capability." Referred to Committee on Agriculture, Nutrition, and Forestry.
- S. 2970 (Daines), introduced on May 24, 2018, as the RURAL Broadband Act of 2018, would prohibit USDA from providing broadband loans or grants for projects that overbuild or otherwise duplicate broadband networks operated by another provider that have received universal service support from the FCC or previous broadband assistance from RUS. Referred to the Committee on Agriculture, Nutrition, and Forestry.
- S. 3080 (Murkowski), introduced on June 18, 2018, as the Food Security, Housing, and Sanitation Improvements in Rural, Remote, and Frontier Areas Act of 2018, would amend the Rural Electrification Act of 1936 to include a satellite project or technology within the definition of broadband service. Referred to the Committee on Agriculture, Nutrition, and Forestry.

Appendix. Rural Development Telecom Awards

Table A-1. Rural Development Telecom Awards, FY2009-FY2016

($ millions)

	2009-2014		2015		2016		TOTAL	
	Amount	# Awards	Amount	# Awards	Amount	# Awards	Amount	# Awards
AL	60.4	19	1.3	3	0.45	2	62.1	24
AK	149.4	40	3.8	7	1.4	4	154.6	51
AZ	46.4	25	0	0	0.21	1	46.6	26
AR	279.8	45	25.7	3	10.3	7	315.8	55
CA	46.2	27	0.46	2	2.1	7	48.7	36
CO	85.8	29	0.26	1	0.18	1	86.2	31
FL	49.4	6	0.35	2	0	0	49.8	8
GA	112.4	20	0.90	2	1.5	6	114.8	28
HI	1.7	5	0	0	0	0	1.7	5
ID	51.3	26	0.48	1	12.7	1	64.5	28
IL	155.8	33	0.15	1	0.62	2	156.6	36
IN	128.2	14	0	0	0.55	2	128.7	16
IA	290.2	53	40.9	6	15.2	2	346.3	61
KS	373.1	47	0.14	1	26.5	3	399.7	51
KY	321.8	42	0.56	3	0.97	3	323.4	48
LA	54.8	16	0	0	1.4	3	56.3	19
ME	23.4	44	2.7	7	1.6	5	27.8	56
MD	74.4	31	0.10	1	0	0	74.5	32
MA	0.50	1	0	0	0.64	2	1.1	3
MI	126.8	24	0.98	3	0.54	2	128.3	29
MN	327.4	63	30.9	4	7.8	7	366.1	74
MS	50.3	25	1.7	3	2.0	4	53.9	32
MO	214.8	56	0.67	3	0	0	215.4	59
MT	359.8	25	30.3	3	30.7	5	420.8	33
NE	153.2	34	4.2	2	0.31	2	157.7	38
NV	20.1	10	0.38	1	1.4	3	21.9	14
NH	3.9	8	0.92	2	5.5	1	10.3	11
NJ	0.32	2	0	0	0	0	0.32	2
NM	191.5	34	5.8	2	14.4	3	211.7	39
NY	64.8	42	0.48	2	0.22	1	65.5	45
NC	153.6	30	0	0	1.3	5	154.8	35
ND	376.6	39	60.3	5	55.3	2	492.3	46

	2009-2014		2015		2016		TOTAL	
OH	46.0	33	0.25	1	0.39	2	46.7	36
OK	308.6	74	22.9	4	4.5	6	336.1	84
OR	75.3	34	0.20	1	0.99	1	75.6	36
PA	4.4	18	0	0	1.0	4	5.4	22
PR	1.7	4	0	0	0	0	1.7	4
SC	205.4	21	14.0	6	1.3	4	220.7	31
SD	133.5	25	1.1	4	17.6	5	152.2	34
TN	235.9	38	0.63	2	3.5	8	240.1	48
TX	326.5	61	13.4	1	14.7	2	354.6	64
UT	22.2	15	0.33	2	0.30	1	22.8	18
VT	124.8	13	0	0	0	0	124.8	13
VA	103.8	28	3.4	2	2.4	3	109.6	33
WA	149.4	32	0.38	1	0.46	1	150.2	34
WV	48.3	19	0	0	1.2	3	49.5	22
WI	336.9	72	9.3	7	1.1	4	347.3	83
WY	54.1	10	0	0	0	0	54.1	10
VI	0.75	1	0	0	0	0	0.75	1
Western Pacific	122.8	7	0.49	1	0	0	123.3	8
TOTAL	**6,648.7**	**1,420**	**280.9**	**102**	**244.2**	**130**	**7,174.0**	**1,652**

Source: USDA, Rural Development, *2016 Progress Report*.

Notes: Includes the four RUS loan and grant programs: Rural Broadband Loan and Loan Guarantee Program, Telecommunications Infrastructure Loan and Loan Guarantee Program, Community Connect Grant Program, and Distance Learning and Telemedicine Grant Program. Data for 2009-2014 includes the 2009-2010 Broadband Initiatives Program funds appropriated by the American Recovery and Reinvestment Act (ARRA).

Author Information

Lennard G. Kruger
Specialist in Science and Technology Policy

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not

subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.