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

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Lennard G. Kruger
Specialist in Science and Technology
Resources, Science, and Industry Division

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

Summary

Given the large potential impact broadband access to the Internet 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.

Citing the lagging deployment of broadband in many rural areas, Congress and the Administration acted in 2001 and 2002 to initiate pilot broadband loan and grant programs within the Rural Utilities Service (RUS) at the U.S. Department of Agriculture (USDA). Subsequently, 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. Currently, RUS/USDA houses the only two federal assistance programs *exclusively* dedicated to financing broadband deployment: the Rural Broadband Access Loan and Loan Guarantee Program and the Community Connect Grant Program.

The 110th Congress is considering reauthorization and modification of the program as part of the farm bill. On July 27, 2007, the House passed the Farm, Nutrition, and Bioenergy Act of 2007 (H.R. 2419), which contains authorizing language (Title VI, Rural Development) for the broadband loan and grant programs. On October 25, 2007, the Senate farm bill, the Food and Energy Security Act of 2007 (S. 2302), was approved by the Senate Committee on Agriculture, Nutrition, and Forestry. Additionally, H.R. 2035, H.R. 2174, H.R. 2569, H.R. 2953, S. 541, S. 1032, and S. 1439 have been introduced to address some of the reauthorization issues related to the RUS broadband loan program. On May 11, 2007, RUS released a Proposed Rule seeking to revise the broadband loan program rules and regulations. Some key issues pertinent to a consideration of the RUS broadband programs include restrictions on applicant eligibility, how "rural" is defined with respect to eligible rural communities, how to address assistance to areas with preexisting broadband service, technological neutrality, funding levels and mechanisms, and the appropriateness of federal assistance. Ultimately, any modification of rules, regulations, or criteria associated with the RUS broadband program will likely result in "winners and losers" in terms of which companies, communities, regions of the country, and technologies are eligible or more likely to receive broadband loans and grants.

This report will be updated as events warrant.

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

Introduction

The Rural Utilities Service (RUS) within the U.S. Department of Agriculture (USDA) houses the only two federal assistance programs *exclusively* dedicated to financing deployment of broadband Internet access in rural America. These are: the Rural Broadband Access Loan and Loan Guarantee Program and the Community Connect Grant Program. The two programs initially appeared as pilot programs in 2001 and 2002. The broadband loan program was authorized by the 2002 farm bill (P.L. 107-171); this authorization expired on September 30, 2007.

The 110th Congress is considering the RUS broadband program as part of the reauthorization of the farm bill in 2007. Given concerns over the lagging status of broadband deployment in many rural areas, Congress is likely to examine how the RUS broadband programs might be positioned to most effectively address rural broadband development. This report provides detailed background information on the RUS broadband loan and grant programs, outlines criticisms of how the RUS broadband program has been implemented thus far, and discusses issues that Congress may be asked to consider during the reauthorization process.

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 for private homes, commercial establishments, schools, and public institutions. Currently in the United States, broadband is primarily provided via cable modem (from the local provider of cable television service) or over the telephone line (digital subscriber line or "DSL"). Other broadband technologies include fiber optic cable, fixed wireless, satellite, and broadband over power lines (BPL).

Broadband access enables a number of beneficial applications to individual users and to communities. These include e-commerce, 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. A February 2006 study by the Massachusetts Institute of Technology for the Department of Commerce's Economic Development Administration marked the first attempt to measure the impact of broadband on economic growth. The study found that "between 1998 and 2002, communities in which mass-market broadband was

available by December 1999 experienced more rapid growth in employment, the number of businesses overall, and businesses in IT-intensive sectors, relative to comparable communities without broadband at that time."[1]

Subsequently, a June 2007 report from the Brookings Institution found that for every one percentage point increase in broadband penetration in a state, employment is projected to increase by 0.2 to 0.3% per year. For the entire U.S. private non-farm economy, the study projected an increase of about 300,000 jobs, assuming the economy is not already at full employment.[2]

Access to affordable high-speed Internet service 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.

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,[3] recent surveys and studies have indicated that, in general, rural areas tend to lag behind urban and suburban areas in broadband deployment. For example:

- A September 2004 Department of Commerce report, *A Nation Online: Entering the Broadband Age*, found that a lower percentage of Internet households have broadband in rural areas (24.7%) than in urban areas (40.4%), and that "while broadband usage has grown significantly in all areas since the previous survey, the rural-urban differential continues."[4] The report also found that broadband

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[1] Gillett, Sharon E., Massachusetts Institute of Technology, *Measuring Broadband's Economic Impact*, report prepared for the Economic Development Administration, U.S. Department of Commerce, February 28, 2006, p. 4. Available at [http://www.eda.gov/ImageCache/EDAPublic/documents/pdfdocs2006/mitcmubbimpactreport_2epdf/v1/mitcmubbimpactreport.pdf].

[2] Crandall, Robert, William Lehr, and Robert Litan, *The Effects of Broadband Deployment on Output and Employment: A Cross-sectional Analysis of U.S. Data*, June 2007, 20 pp. Available at [http://www3.brookings.edu/views/papers/crandall/200706litan.pdf].

[3] See for example: National Exchange Carrier Association (NECA), *Trends 2006: Making Progress With Broadband*, 2006, 26 p. Available at [http://www.neca.org/media/trends_brochure_website.pdf].

[4] U.S. Department of Commerce, Economics and Statistics Administration, National Telecommunications and Information Administration, *A Nation Online: Entering the Broadband Age*, September 2004, pp. 12-13.

penetration rates are higher in the West and Northeast than in the South and Midwest.[5]

- A May 2006 report released by the Government Accountability Office (GAO) found that 17% of rural households subscribe to broadband, as opposed to 28% of suburban and 29% of urban households.[6] GAO also found that lower broadband subscription rates in rural areas are related to availability, not to a lesser tendency of rural households to purchase broadband service.[7]

- 2007 data from the Pew Internet & American Life Project indicate that while broadband adoption is growing in urban, suburban, and rural areas, broadband users make up larger percentages of urban and suburban users than rural users. Pew found that the percentage of all U.S. adults with broadband at home is 52% for urban areas, 49% for suburban areas, and 31% for rural areas.[8]

- According to the latest FCC data on the deployment of high-speed Internet connections (released October 2007), high-speed subscribers were reported in 99% of the most densely populated zip codes, as opposed to 90% of zip codes with the lowest population densities.[9]

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 and DSL — the greater the geographical distances among customers, the larger the cost to serve those customers. For example, in providing telecommunications services, investment per subscriber in rural systems averages $2,921 compared to $1,920 for urban.[10] 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.,

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[5] Ibid., p. 12.

[6] U.S. Government Accountability Office, *Broadband Deployment is Extensive throughout the United States, but It Is Difficult to Assess the Extent of Deployment Gaps in Rural Areas*, GAO-06-426, May 2006, p. 12. Available at [http://www.gao.gov/new.items/d06426.pdf].

[7] Ibid., p. 5.

[8] Horrigan, John B., Pew Internet & American Life Project, *Home Broadband Adoption 2007,* June 2007, Available at [http://pewinternet.org/pdfs/PIP_Broadband%202007.pdf]

[9] FCC, *High-Speed Services for Internet Access: Status as of December 31, 2006,* p.4.

[10] Office of Management and Budget, Program Assessment Rating Tool (PART), Department of Agriculture PART Assessments, assessment year 2005, p. 262, available at [http://www.whitehouse.gov/omb/budget/fy2005/pma/agriculture.pdf].

the "middle mile") which refers to the installation of a dedicated line which transmits a signal to and from an Internet backbone which is typically located in or near an urban area.

Cable modem and DSL currently comprise about 70% of broadband deployment nationwide.[11] However, because of the challenges of deploying these technologies in low population density areas, other broadband technologies have been identified as perhaps offering potential in rural areas. These include mobile wireless (cellular), fixed wireless (WIMAX, wi-fi), satellite, and broadband over powerlines (BPL).

Pilot Broadband Loan and Grant Programs

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."[12] 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 FY2001 pilot broadband loan program received applications requesting a total of $350 million. RUS approved funding for 12 applications totaling $100 million. 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.[13]

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[11] *High-Speed Services for Internet Access: Status as of December 31, 2006,* Chart 2.

[12] 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.

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

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."[14]

In response to the July 8, 2002, Notice of Funds Availability, RUS received more than 300 applications totaling more than $185 million in requested grant funding. RUS approved 40 grants totaling $20 million. The pilot program was extended into FY2003, as the Consolidated Appropriations Resolution of 2003 (P.L. 108-7) allocated $10 million for broadband grants. On September 24, 2003, 34 grants were awarded to eligible applicants who did not receive funding during the previous year.

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.[15] Section 6103 made available, from the funds of the Commodity Credit Corporation (CCC), a total of $100 million through FY2007 ($20 million for each of fiscal years 2002 through 2005, and $10 million for each of fiscal years 2006 and 2007). P.L. 107-171 also authorized any other funds appropriated for the broadband loan program.

Beginning in FY2004, Congress has annually blocked mandatory funding from the CCC. Thus — starting in FY2004 — the program has been funded as part of annual appropriations in the Distance Learning and Telemedicine account within the Department of Agriculture appropriations bill. Every fiscal year, Congress has approved an appropriation for the loan program which is used to subsidize a specific loan level (the total amount of lending authority). **Table 1** shows — for the life of the program to date — loan subsidies, loan levels (lending authority), and actual funds announced by RUS yearly for loan applications. Announced available funding typically exceeds yearly loan levels because large balances of unobligated money have been carried over from year to year. However, Section 1401 of the Deficit

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

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

Reduction Act of 2005 (P.L. 109-171) cancelled unobligated funds remaining as of October 1, 2006.

The President's FY2008 budget proposal requested a $6.45 million subsidy to support a loan level of $300 million. On July 19, 2007, both the House and Senate Appropriations Committees approved respective FY2008 agriculture appropriations bills. The House committee approved $6.45 million to support a loan level of $300 million. The Senate committee approved $10.643 million to support a loan level of $495 million. On December 26, 2007, the President signed the Consolidated Appropriations Act, 2008 (P.L. 110-161). The bill provided $6.45 million to support a loan level of $300 million for the broadband loan program.

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

	Budget Authority (subsidy level)	Loan Level (lending authority)	Announced Available Funding for Loans and Loan Guarantees[a]
FY2003	$40 million[b]	$1.455 billion	$1.455 billion[c]
FY2004	$13.1 million	$602 million	$2.211 billion[d]
FY2005	$11.715 million	$550 million	$2.157 billion[e]
FY2006	$10.75 million	$500 million	$1.085 billion[f]
FY2007	$10.75 million	$500 million	$0.998 billion[g]
FY2008	$6.45 million	$300 million	—

a. Because all available funds were not awarded, unobligated balances were carried over from year to year.
b. Composed of $20 million from FY2002 plus $20 million for 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.
c. Rural Utilities Service, USDA, "Rural Broadband Access Loans and Loan Guarantees Program," *Federal Register*, Vol. 68, No. 20, January 30, 2003, pp. 4753-4755.
d. Rural Utilities Service, USDA, "Rural Broadband Access Loans and Loan Guarantees Program," *Federal Register*, Vol. 69, No. 60, March 29, 2004, pp. 16231-16232.
e. Rural Utilities Service, USDA, "Rural Broadband Access Loans and Loan Guarantees Program," *Federal Register*, Vol. 70, No. 42, March 4, 2005, pp. 10595-10596.
f. USDA, Rural Utilities Service, "Rural Development Utilities Programs," powerpoint presentation, April 25, 2006. Available at [http://www.usda.gov/rus/pasd/NARUC-2006April.ppt#322,1].
g. USDA, Rural Utilities Service, "Rural Development Telecommunications Program Overview," powerpoint presentation, October 1, 2007. Available at [http://www.usda.gov/rus/telecom/broadband/workshops/J.PontiMichiganPresentationOct12007.ppt].

The Rural Broadband Access Loan and Loan Guarantee Program is codified as 7 U.S.C. 950bb. Specifically, Treasury rate loans, 4% loans, and loan guarantees are authorized for entities providing broadband service for "eligible rural communities," defined as any area of the United States that is not contained in an incorporated city

or town with a population in excess of 20,000 inhabitants.[16] RUS is required to be technologically neutral in determining whether or not to make a loan, and is instructed to give priority to rural communities with no existing residential broadband service. Loans are used for financing new or improved existing broadband provider facilities. Loans cannot be used to finance installations or equipment at customers' premises.

On January 30, 2003, the RUS published in the *Federal Register* the regulation (7 C.F.R. part 1738) establishing the Rural Broadband Access Loan and Loan Guarantee Program, as authorized by P.L. 107-171.[17] According to the regulation, entities eligible to receive loans include corporations, limited liability companies, cooperative or mutual organizations, Indian tribes, and public bodies. Specifically **not** eligible are individuals, partnerships, and any entity serving 2% or more of the telephone subscriber lines in the United States. All applicants are required to demonstrate adequate credit support — a minimum of 20% of requested loan amount, including cash on hand equivalent to one full year of operating expense.[18]

To be eligible for 4% loans, applicants must be proposing to serve a community with no existing broadband service, a population of 2,500 or less, and a service area with population density of no more than 20 persons per square mile. Additionally, the community must be located in a county with a per capita income of less than or equal to 65% of the national per capita income.

As of September 19, 2007, the broadband loan program received 209 applications, requesting a total of $4.458 billion in loans. Of these, 77 applications were approved (totaling $1.3 billion), 21 were in review (totaling $937 million), and 111 had been returned (totaling $2.24 billion). RUS estimates that 637,000

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[16] Section 772 of the FY2004 Consolidated Appropriations Act (P.L. 108-199) changed the definition of an "eligible rural community" to be defined as "any area of the United States that is not contained in an incorporated city or town with a population in excess of 20,000 inhabitants." Accordingly, the March 29, 2004 Notice of Funds Availability for the Rural Broadband Access Loans and Loan Guarantee Program defined "Eligible Rural Community" as follows:

> The definition of eligible rural community in Section 601(b)(2) of the Rural Electrification Act (7 U.S.C. 950bb)(b)(2), qualifying for financial assistance under the Rural Broadband Access Loan and Loan Guaranty Program, has been amended by provisions in the Consolidated Appropriations Act, 2004, to mean any area of the United States that is not contained in an incorporated city or town with a population in excess of 20,000 inhabitants. Therefore, an applicant no longer must demonstrate that it is not located in an area designated as a standard metropolitan statistical area. This change supersedes and nullifies contrary provisions in regulations implementing the broadband program found at 7 CFR part 1738.

[17] Rural Utilities Service, USDA, "Rural Broadband Access Loans and Loan Guarantees," *Federal Register*, Vol. 68, No. 20, January 30, 2003, pp. 4684-4692.

[18] The cash-on-hand requirement is waived for companies with two previous years of positive cash flow.

households in more than 1,390 rural communities will receive broadband service as a result of approved loans. Of loans approved, 53% were made to corporations, 36% to LLCs, 7% to cooperatives, 3% to municipalities, and 1% to a tribal authority. Eight projects have completed in Kansas, Louisiana, Michigan, North Dakota, Nebraska, South Dakota, Texas, and Washington.[19]

Applications for the Rural Broadband Access Loan and Loan Guarantee program are accepted at any time. The maximum loan amount for 4% loans is $7.5 million. There is no maximum for treasury rate loans, and the minimum level for all loans is $100 thousand. In 2003, the average loan was $11.2 million, while in 2006, the average loan was $44 million.[20] Loans are made for the term equal to the expected service life of financed facilities. Further information, including application materials and guidelines, is available at [http://www.usda.gov/rus/telecom/broadband.htm].

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." On July 28, 2004, RUS published its final rule on the broadband grant program, called the Community Connect Grant Program (7 C.F.R. part 1739, subpart A).[21] 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 (including the pilot grants of FY2002 and FY2003).

The President's FY2008 budget proposal requested no funding for the Community Connect Broadband Grant program. On July 19, 2007, both the House and Senate Appropriations Committees approved respective FY2008 agriculture appropriations bills. The House committee approved $17.82 million for broadband

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[19] USDA, Rural Utilities Service, "Rural Development Telecommunications Program Overview," powerpoint presentation, October 1, 2007. Available at [http://www.usda.gov/rus/telecom/broadband/workshops/J.PontiMichiganPresentationOct12007.ppt].

[20] 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.

[21] Rural Utilities Service, USDA, "Broadband Grant Program," 7 C.F.R. part 1739, *Federal Register*, Vol. 69, No. 144, July 28, 2004, pp. 44896-44903.

grants; the Senate committee approved $8.9 million. The Consolidated Appropriations Act, 2008 (P.L. 110-161) provided $13.5 million for broadband community connect grants.

Table 2. Appropriations for the Community Connect Broadband Grants, FY2002-FY2008

Fiscal Year	Appropriation
FY2002	$20 million
FY2003	$10 million
FY2004	$9 million
FY2005	$9 million
FY2006	$9 million
FY2007	$9 million
FY2008	$13.5 million

Source: Compiled by CRS from appropriations bills.

Eligible applicants for broadband grants include incorporated organizations, Indian tribes or tribal organizations, state or local units of government, cooperatives, private corporations, and limited liability companies organized on a for profit or not-for-profit basis. Individuals or partnerships are not eligible.

Funded projects must: serve a rural area of 20,000 population or less[22] where broadband service does not exist, serve one and only one single community, deploy free basic broadband service (defined as 200 kbps in both directions) for at least two years to all community facilities, offer basic broadband to residential and business customers, and provide a community center with at least ten computer access points within the proposed service area while making broadband available for two years at no charge to users within that community center.

Since the inception of the RUS broadband grant program, $65.4 million in grant money has been awarded to 141 awardees. Awardees must contribute a matching contribution equal to 15% of the requested grant amount.

RUS typically publishes an annual Notice of Funding Availability (NOFA) in the *Federal Register*, which specifies the deadline for applications, the total amount of funding available, and the maximum and minimum amount of funding available

[22] A rural area is defined as "any area of the United States not included within the boundaries of any incorporated or unincorporated city, village, or borough having a population in excess of 20,000 inhabitants." (7 C.F.R. 1739.3)

for each grant. Further information, including application materials and guidelines, is available at [http://www.usda.gov/rus/telecom/commconnect.htm].

Other Broadband Programs

The Rural Broadband Access Loan and Loan Guarantee Program and the Community Connect Broadband Grants are currently the only federal programs *exclusively* dedicated to deploying broadband infrastructure. However, there exist other federal programs that provide financial assistance for various aspects of telecommunications development.[23] Though not explicitly or exclusively devoted to broadband, many of those programs are used to help deploy broadband technologies in rural areas. For example, since 1995, the RUS Rural Telephone Loan and Loan Guarantee program — which has traditionally financed telephone voice service in rural areas under 5,000 inhabitants — has required that all telephone facilities receiving financing must be capable of providing DSL broadband service at a rate of at least 1 megabyte per second.[24] An October 2006 survey of RUS traditional telephone loan program borrowers found that 92% of those borrowers were providing broadband to all of the telephone exchanges in their service territories.[25] The RUS Distance Learning and Telemedicine grants program is used to support deployment of broadband technologies specifically for telemedicine and distance learning applications. **Table 3** shows the number of customers receiving broadband due to USDA financing of telecommunications facilities.

Table 3. Number of Customers Receiving New or Improved Telecommunication Services (Broadband) Through USDA Financing of Telecommunications Facilities

(millions)

FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
0.315	0.31	0.38	0.37	0.24	0.30	0.25	0.24

Sources: U.S. Dept. of Agriculture, *2006 Performance and Accountability Report*, November 2006, p. 82; U.S. Dept. of Agriculture, *FY2008 Budget Summary and Performance Plan*, p. 44.

Note: Customers are defined as access lines financed by the programs.

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[23] See CRS Report RL30719, *Broadband Internet Access and the Digital Divide: Federal Assistance Programs, by* Lennard G. Kruger and Angele A. Gilroy.

[24] In the Rural Electrification Loan Restructuring Act (P.L. 103-129, the 1993 farm bill), Congress amended the Rural Electrification Act to require that facilities financed under this program be capable of providing broadband service at the rate of 1 megabyte per second (7 U.S.C. 935(d)(3)(B)(iv)(I)(cc).

[25] USDA, Rural Utilities Service, Rural Development Telecommunications home page, [http://www.usda.gov/rus/telecom/].

The other major vehicle for funding telecommunications development in rural areas is the Universal Service Fund (USF).[26] Subsidies provided by USF's Schools and Libraries Program and Rural Health Care Program are used for a variety of telecommunications services, including broadband access. While the USF's High Cost Program does not *explicitly* fund broadband infrastructure, subsidies are used, in many cases, to upgrade existing telephone networks. Regarding the USF High Cost Program, the Congressional Budget Office has found that "current policy implicitly provides funds for broadband in rural areas," adding that:

> Whether such upgrades are motivated by the intention to provide broadband or better conventional telephone service is not immediately clear. However, the fact that wireline carriers as a whole have been losing subscribers and long-distance revenue over the past half decade suggests that at least part of the new investment in local loops has been made with the expectation of generating revenue from broadband subscriptions.[27]

In the 110th Congress, legislation to reform universal service — which could have a significant impact on the amount of financial assistance available for broadband deployment in rural and underserved areas — has been introduced (H.R. 42, H.R. 2054, S. 101, S. 711). For more information on universal service, see CRS Report RL33979, *Universal Service Fund: Background and Options for Reform*, by Angele A. Gilroy.

In addition to federal support for broadband deployment, there are programs and activities ongoing at the state and local level. Surveys, assessments, and reports from the American Electronics Association,[28] Technet,[29] the Alliance for Public Technology,[30] the California Public Utilities Commission,[31] the AEI-Brookings Joint Center,[32] and the National Conference of State Legislatures[33] have explored state and

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[26] For more information on the Universal Service Fund, see CRS Report RL30719, *Broadband Internet Access and the Digital Divide: Federal Assistance Programs, by* Lennard G. Kruger and Angele A. Gilroy.

[27] Congressional Budget Office, *Factors That May Increase Future Spending from the Universal Service Fund*, CBO Paper, June 2006, p. 25. Available at [http://www.cbo.gov/ftpdocs/72xx/doc7291/06-16-UniversalService.pdf].

[28] American Electronics Association, *Broadband in the States 2003: A State-by-State Overview of Broadband Deployment*, May 22, 2003. Available at [http://www.aeanet.org/publications/idet_broadbandstates03.asp].

[29] TechNet, *The State Broadband Index: An Assessment of State Policies Impacting Broadband Deployment and Demand*, July 17, 2003, 48 p. Available at [http://www.analysys.com/pdfs/technetbroadband.pdf].

[30] Alliance for Public Technology, *A Nation of Laboratories: Broadband Policy Experiments in the States*, March 5, 2004, 48 p. Available at [http://www.apt.org/publications/reports-studies/broadbandreport_final.pdf].

[31] California Public Utilities Commission, *Broadband Deployment in California*, May 5, 2005, 83 p. Available at [http://www.cpuc.ca.gov/PUBLISHED/REPORT/45539.htm].

[32] Wallsten, Scott, AEI-Brookings Joint Center for Regulatory Studies, *Broadband* (continued...)

local broadband programs. A related issue is the emergence of municipal broadband networks (primarily wireless and fiber based) and the debate over whether such networks constitute unfair competition with the private sector.

Criticisms of RUS Broadband Programs

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

Loan Approval and Application Process

Perhaps the major criticism of the broadband loan program is that not enough loans are approved, thereby making it difficult for rural communities to take full advantage of the program. As of May 1, 2007, the broadband loan program had received 198 applications, requesting a total of $4.3 billion in loans. Of these, 69 applications were approved (totaling $1.21 billion), 21 were in review (totaling $950 million), and 108 had been returned (totaling $2.14 billion).[34] According to RUS officials, 28% of available loan money was awarded in 2004, and only 5% of available loan money was awarded in 2005.[35]

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 is insufficient credit support, whereby applicants do not have sufficient cash-on-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.

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[32] (...continued)
Penetration: An Empirical Analysis of State and Federal Policies, Working Paper 05-12, June 2005, 29 p. Available at [http://aei-brookings.org/admin/authorpdfs/page.php?id=1161].

[33] For a summary of selected state broadband bills, see [http://www.ncsl.org/programs/telecom/broadband0906.htm]

[34] 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. Available at [http://agriculture.house.gov/testimony/110/h70501b/Andrew.doc]. A listing of approved and pending broadband loan applications is available at [http://www.usda.gov/rus/telecom/broadband.htm].

[35] 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.

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.[36]

According to RUS, the loan program was initially overwhelmed by applications (particularly during a two week period in August 2003), and as the program matures, application review times have dropped.[37] On May 11, 2007, RUS released a Proposed Rule which seeks 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.[38]

Eligibility Criteria

Since the inception of the broadband grant and loan programs, the criteria for applicant eligibility has 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."[39] Specifically the IG report found that the RUS definition of rural area has been "too

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[36] 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.

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

[38] 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.

[39] 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. Available at [http://www.usda.gov/oig/webdocs/09601-04-TE.pdf].

broad to distinguish usefully between suburban and rural communities,"[40] 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 examples of affluent suburban subdivisions qualifying as rural areas under the program guidelines and receiving broadband loans.[41]

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.[42] 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.[43]

Loans to Communities With Existing Providers

The USDA Rural Broadband Access statute (7 U.S.C. 950bb) specifies that the program "shall give priority to eligible rural communities in which broadband service is not available to residential customers." 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."[44] 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).[45] 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."[46] At the May 1, 2007 hearing before the House Subcommittee on Specialty Crops, Rural Development, and Foreign Agriculture, RUS Administrator James Andrews testified that of the 69 broadband loans awarded since the program's inception, 40% of the communities

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[40] Ibid., p. 6.

[41] Ibid., p. 8.

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

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

[44] Ibid., p. 13.

[45] Ibid., p. 14.

[46] Ibid., p. 15

approved for funding were unserved at the time of loan approval, and an additional 15% had only one broadband provider.[47]

Awarding loans to entities in communities with preexisting competitive service has 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."[48] Critics argue that providing loans in areas with preexisting competitive broadband service creates an uneven playing field and discourages further private investment in rural broadband.[49] 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."[50] RUS argues 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.[51]

Issues for Reauthorization

The current authorization for the Rural Broadband Access Loan and Loan Guarantee program expired on September 30, 2007. It is expected that the 110th Congress will consider reauthorization of the program as part of a possible 2007 farm bill. Any modification of rules, regulations, or criteria associated with the RUS broadband program will likely result in "winners and losers" in terms of which companies, communities, regions of the country, and technologies are eligible or more likely to receive broadband loans and grants.

On May 11, 2007, RUS released a Proposed Rule which seeks to revise regulations for the broadband loan program and address many of the criticisms of the program. Specifically, the Proposed Rule addresses: (1) funding in competitive

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[47] 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.

[48] 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.

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

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

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

markets and new eligibility requirements; (2) new equity and market survey requirements; and (3) new legal notice requirements to increase transparency.[52]

Congress will likely consider approaches in the Proposed Rule as part of formulating the RUS broadband program reauthorization. The following are some key issues pertinent to a consideration of the RUS broadband programs.

Restricting Applicant Eligibility

The RUS broadband program has been 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 view as overly expensive and burdensome to complete. During the reauthorization process, Congress may wish to consider whether the criteria for loan eligibility should be modified, and whether a more appropriate balance can 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.

The Proposed Rule issued by RUS on May 11, 2007, would substantially modify applicant eligibility restrictions. First, the Proposed Rule would eliminate the requirement for a market survey for applicants proposing to serve 15% or less of a community.[53] Second, the existing "credit support requirement," would be replaced by an "equity requirement." Under the Proposed Rule, the equity requirement would be reduced from 20% to 10% for applicants proposing to serve areas where at least 40% of households have no broadband access or service from only one provider. Additionally, the current requirement for a year's worth of cash-on-hand would be eliminated. Instead, once RUS has completed its review of the loan application, the applicant would be notified if additional cash requirements are needed to support the feasibility of the loan. This would be the case if RUS financial analysis indicates that cash from operations and previous cash infusions cannot sustain a positive cash position throughout the forecast period. Finally, the Proposed Rule seeks to give RUS the authority to modify or waive the provisions of the equity requirement as long as those modifications do not result in a projected negative cash position, and if those modifications are required to provide broadband in areas with no service or with only one existing broadband provider.[54]

Definition of "Rural Community"

The definition of which communities qualify as "rural" has 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,

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[52] 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.

[53] Ibid., p. 26750.

[54] Ibid., p. 26754.

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.

The Proposed Rule released by RUS on May 11, 2007 would narrow the definition of an Eligible Rural Community. In addition to excluding cities or towns with populations over 20,000, the Proposed Rule would exclude communities located within an Urban Area, as defined by the Bureau of the Census as all territory, population, and housing units located within an urbanized area or an urban cluster. Also excluded is any area that has four or more existing broadband service providers (excluding the applicant).[55]

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 sees a coming trend towards larger regional and national proposals, covering hundreds or even more than a thousand communities.[56] 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

While the majority of broadband loans (and all broadband grants) are awarded to entities serving areas without preexisting broadband service, and while RUS is

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[55] Ibid., p. 26751.

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

directed by statute to "give priority to eligible rural communities in which broadband service is not available to residential customers," a significant number of Treasury-rate loans have been awarded in areas with preexisting service. Loans to areas with competitive preexisting service — that is, areas where existing companies already provide some level of broadband — have sparked controversy because loan recipients are likely to compete with other companies already providing broadband service.

During reauthorization, Congress may be asked to more sharply define whether and/or how loans should be given to companies serving rural areas with preexisting competitive service.[57] On the one hand, one could argue 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 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, it is argued, that rural areas also receive the benefits of competition, which in some areas may not be possible without federal financial assistance. It is 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.

The Proposed Rule released by RUS on May 11, 2007, would prohibit funding for any community where there are four or more Existing Broadband Service Providers. To be recognized as an Existing Broadband Service Provider, an incumbent service provider must provide evidence and certify to RUS that 10% of the households passed by their facilities are purchasing their broadband service.[58] Applicants would be required to prepare a legal notice stating the intent to offer broadband service in a particular community. The legal notice would be published on the RUS web page. Incumbent providers would then have 30 days to submit information to RUS which would be used to determine if the incumbent is classified as an Existing Broadband Service Provider.[59]

New market entrants and start-ups, as well as incumbent applicants seeking to expand their service area, are required to enter areas where at least 40% of households either have no broadband service or access to only one broadband service provider. According to RUS:

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[57] 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."

[58] 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. 26749.

[59] Ibid., p. 26755.

> This requirement addresses the need to reach unserved or underserved areas while also permitting service to more lucrative areas, which may be served by up to three Existing Service Providers, in order to attract feasible loan proposals which are supportable from project revenues. Permitting service in areas with up to three Existing Service Providers addresses the need for applicants to leverage revenues from lower-cost users (typically those in more densely populated areas within a city or town) in order to provide service to rural households in higher cost areas, while excluding areas with higher levels of competition where loan feasibility is unlikely.[60]

Additionally, the Proposed Rule states that loans to incumbent service providers can be used to upgrade existing facilities without serving additional customers, as long as the upgrades enhance existing broadband service, and as long as there are no more than three other Existing Broadband Service providers in the area.[61]

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 September 2007, 35% of approved and funded projects employed fiber-to-the-home technology, 20% employed DSL, 25% fixed wireless, 19% hybrid fiber-coaxial (cable), and 1% broadband over powerlines (BPL).[62] No funding has been provided for projects utilizing satellite broadband.[63]

While decisions on funded projects are required to be technologically neutral, RUS (through the Secretary of Agriculture) does have 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." To date, RUS broadband loan and grant programs have required a

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[60] Ibid., p. 26749.

[61] Ibid.

[62] USDA, Rural Utilities Service, "Rural Development Telecommunications Program Overview," powerpoint presentation, October 1, 2007. Available at [http://www.usda.gov/rus/telecom/broadband/workshops/J.PontiMichiganPresentationOct12007.ppt].

[63] 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.

minimum threshold of 200 kbps (kilobytes per second) in both directions (both uploading and downloading). While the 200 kbps minimum matches the standard definition of broadband that is used by the Federal Communications Commission (FCC), it is considered a low threshold that captures almost all existing broadband technology.[64]

Some have argued that the minimum threshold of 200 kbps 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 could argue 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.

Funding

Under the 2002 farm bill (P.L. 107-171), broadband loan subsidies were funded at a total of $100 million through FY2007 ($20 million for each of fiscal years 2002 through 2005, and $10 million for each of fiscal years 2006 and 2007). This $100 million was to be transferred from funds of the Commodity Credit Corporation (CCC). However, beginning in FY2004, Congress has annually blocked mandatory funding from the CCC, thus ensuring that the program was funded solely through annual appropriations.

During reauthorization, the 110th Congress may wish to consider whether the mandatory CCC funding mechanism provided in the 2002 farm bill should be retained, eliminated, or modified. Also at issue is whether the current funding levels for the RUS broadband programs are optimal. Given the relatively low utilization of the broadband loan program, should funding remain at current levels or below, or alternatively, if modifications are made to ensure fuller utilization, and given the need to bridge the digital divide, should funding be increased? A related issue is whether more money should be shifted from the broadband loan program to the Community Connect broadband grant program, in order to better address the need for broadband in lower income rural communities that may not be able to meet financial criteria necessary to qualify for loans.

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[64] Critics of the FCC's broadband definition of 200 kbps have pointed to higher download and upload speeds typically offered in other countries. See Turner, Derek S., Free Press, *Broadband Reality Check II: The Truth Behind America's Digital Divide*, August 2006, pp 5-9. Available at [http://www.freepress.net/docs/bbrc2-final.pdf]. For further discussion of international broadband speeds and prices, including the differences between advertised and actual speeds, see Kende, Michael, Analysis Consulting Limited, *Survey of International Broadband Offerings*, October 4, 2006, 12 p. Available at [http://www.analysys.com/pdfs/BroadbandPerformanceSurvey.pdf].

Appropriateness of Federal Assistance

Finally, there is the broader issue of whether government intervention in the broadband marketplace is appropriate or effective. Some argue that federal investment in broadband deployment could distort private sector investment decisions in a dynamic and rapidly evolving marketplace,[65] and question whether other strategies — such as deregulation, tax incentives, or spectrum policy — may be more effective in fostering increased broadband deployment.

On the other hand, proponents of financial assistance counter that the available data show, in general, that the private sector will invest in areas where it expects the greatest return — areas of high population density and income. Without some governmental assistance in underserved areas, they argue, it is reasonable to conclude that broadband deployment will lag behind in many rural and low income areas.[66]

Activities in the 110th Congress

On January 31, 2007, Secretary of Agriculture Mike Johanns released the Administration's 2007 farm bill proposal. The Administration proposal would reauthorize the Rural Broadband Access Loan and Loan Guarantee program and would allocate $500 million in mandatory spending to reduce the backlog in a number of Rural Development loan and grant programs, including the broadband loan program.

The President's FY2008 budget proposal was released on February 5, 2007. The Administration requested a $6.45 million (subsidy) to support a loan level of $300 million. Noting that this is a $200 million reduction from the FY2007 level, the budget documents stated that the "funding is sufficient to meet expected demand," and that:

> Regulations are being changed to correct certain weaknesses that have become apparent since the program was established a few years ago. The new regulations will ensure that program funds are focused on rural areas that are lacking existing providers, and that applicants meet high enough standards to ensure long term success.[67]

The FY2008 budget proposal requested no funding for the Community Connect Broadband Grant program.

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[65] See Leighton, Wayne A., *Broadband Deployment and the Digital Divide: A Primer*, a Cato Institute Policy Analysis, No. 410, August 7, 2001, 34 pp. Available at [http://www.cato.org/pubs/pas/pa410.pdf].

[66] See for example: Cooper, Mark, Consumer Federation of America and Consumers Union, *Expanding the Digital Divide & Falling Behind on Broadband*, October 2004, 33 pages. Available at [http://www.consumersunion.org/pub/ddnewbook.pdf].

[67] U.S. Dept. of Agriculture, *FY2008 Budget Summary and Performance Plan*, p. 44.

In the May 11, 2007 issue of the *Federal Register*, RUS released its Proposed Rule seeking to revise the broadband loan program rules and regulations (7 C.F.R. Part 1738). RUS accepted public comments on the Proposed Rule through July 10, 2007.

House Farm Bill

On May 1, 2007, the House Subcommittee on Specialty Crops, Rural Development and Foreign Agriculture held a hearing on the RUS broadband programs. Testimony was heard from RUS Administrator James Andrew and public witnesses.[68] On June 6, 2007 the Subcommittee on Specialty Crops, Rural Development and Foreign Agriculture, chaired by Representative McIntyre, approved proposals for sections under its jurisdiction of H.R. 2419, the Farm Bill Extension Act of 2007. Title VII (Rural Development) of the Subcommittee markup included provisions on the Rural Broadband Access Loan and Loan Guarantee Program and the Community Connect Grant program. On July 19, 2007, the full committee approved H.R. 2419; on July 23, 2007, H.R. 2419 (H.Rept. 110-256, Part I) was reported (amended) as the Farm, Nutrition, and Bioenergy Act of 2007. H.R. 2419 was passed by the House on July 27, 2007. The following summarizes the broadband provisions (section 6023, section 6024, and section 6031), as passed by the House, which would change current law:

- Defines eligible rural community as any area of the United States that is not (1) included within the boundaries of any city, town, borough, or village, whether incorporated or unincorporated, with a population of more than 20,000; or (2) included within the urbanized area contiguous and adjacent to such a city or town.

- Prohibits loans to any community in which there are three or more incumbent service providers, unless the loan is to an incumbent service provider of the community, unless other providers in that community are notified of the application, and unless the application proposes to substantially increase the quality of broadband service and the provision of service to underserved households inside and outside the community. Incumbent service providers are defined as an entity providing service to at least 5% of the households in the service area proposed in the application. Also prohibits loans for new construction to any community in which more than 75% of households may obtain affordable broadband service, on request, from at least one incumbent service provider.

- Directs RUS to give priority, in the following order, to applications from eligible rural communities that have (i) no incumbent service provider; (ii) one incumbent service provider; or (iii) two incumbent service providers who, together, serve not more than 25% of the households in the service area proposed in the application.

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[68] Testimony is available at [http://agriculture.house.gov/hearings/statements.html].

- Directs RUS 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, particularly when the loan is issued to a financially healthy, strong, and stable entity. The Secretary shall consider reducing the loan security required in areas that do not have broadband service.

- Directs the Secretary to take steps to reduce the cost and paperwork associated with applying for a loan or loan guarantee by first-time applicants (particularly smaller and start-up Internet providers), while maintaining the ability of the Secretary to make an analysis of the risk associated with the loan.

- Allows loan recipients to decide over how many years to amortize the loan, up to 35 years, provided that the Secretary of Agriculture determines that the loans are adequately secure. In determining the loan term, the Secretary shall consider whether the recipient is or would be serving an area that is not receiving broadband services.

- States that an entity is not eligible for a loan if it serves more than 10% of the telephone subscriber lines installed in the United States. Not more than 25% of loans made in a single fiscal year may be approved for entities that serve more than 2% of the telephone subscriber lines in the United States.

- Authorizes for appropriation such sums as necessary for each of fiscal years 2008 through 2012. For each fiscal year, 10% of funding shall be reserved for entities serving eligible tribal communities. Amounts unobligated by June 30 of the fiscal year shall be made available to eligible entities in any state.

- Authorizes the Community Connect Grant Program through FY2012 at $25 million per year. Requires a matching contribution of 15%. Priority is given to grants that will enhance community access to telemedicine and distance learning resources.

- Requires detailed program reports from RUS to the House Committee on Agriculture and the Senate Committee on Agriculture, Nutrition, and Forestry.

- Establishes a National Center for Rural Telecommunications Assessment.

- Requires USDA to submit a comprehensive rural broadband strategy to the House Committee on Agriculture and the Senate Committee on Agriculture, Nutrition, and Forestry.

Senate Farm Bill

On October 25, 2007, the Senate farm bill, the Food and Energy Security Act of 2007, was approved by the Senate Committee on Agriculture, Nutrition, and Forestry. Title VI, "Rural Development and Investment" contains provisions (primarily section 6110, "Access to broadband telecommunications services in rural areas") which address reauthorization of the Rural Broadband Access Loan and Loan Guarantee Program. The bill was reported by the Committee on November 2, 2007 (S. 2302; S.Rept. 110-220). The Food and Energy Security Act of 2007 (H.R. 2419, as amended) was passed by the Senate on December 14, 2007. The following summarizes broadband-related provisions which would change current law:

- Defines rural area as any area other than: (1) a city or town that has a population of greater than 50,000; (2) an urbanized area contiguous and adjacent to a city or town with a population greater than 50,000; and (3) any collection of census blocks contiguous to each other with a housing density of more than 200 housing units per square mile.

- Prohibits loans or loan guarantees for a project in any specific area in which broadband service is offered by three or more terrestrial service providers that offer services comparable to the services proposed by the applicant. Provider is considered to offer broadband service in a rural area if it offers service at not more than average prices compared with similar services offered in the nearest urban area. An eligible entity must offer broadband service to at least 25% of households not offered broadband service by a terrestrial broadband service provider and must agree to complete buildout of broadband service proposed in application within three years after the loan is received.

- Directs Secretary to give priority to applicants that offer broadband to the greatest proportion of households that, prior to the provision of the service, had no terrestrial broadband service provider.

- Directs the Secretary to ensure that the type, amount, and method of security used to secure the loan is commensurate to the risk involved, particularly if the loan is issued to a financially-healthy, strong, and stable entity. Directs the Secretary to consider the recurring revenues of the entity at the time of application in determining an adequate level of credit support.

- Requires an eligible entity to provide a cost share not to exceed 10% of the amount of the loan or loan guarantee requested. Recurring revenues, including broadband service client revenues, may be credited toward the cost share.

- In case of Indian land, where more than 20% of residents do not have broadband service, 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.

- Directs the Secretary to include a notice of application on its website for a period of not less than ninety days; included on the website will be the name of the applicant, a description and geographical representation of the proposed area of broadband service, a map and numerical estimate of the households that have no terrestrial broadband service in the proposed service area of the project, and any other relevant information. Prohibits the Secretary from making proprietary information available.

- Directs the Secretary to establish, by regulation, procedures to ensure prompt processing of applications. Annual reports describing processing times and explanations for extensions are required. Time limits for responding to applications are prescribed, including that the Secretary shall make a decision whether to approve the loan not later than 180 days after a complete application is submitted.

- Directs that the Secretary may require an entity projecting a subscriber base of more than 20% of the service market to submit a market survey; the Secretary may not require a market survey from an entity proposing to serve less than 20%.

- For direct loans, directs the Secretary to determine interest rates at the lower of 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 30 years if the Secretary determines that the loan security is sufficient.

- Authorizes for appropriation $25 million for each of fiscal years 2008 through 2012.

- Establishes a National Center for Rural Telecommunications Assessment.

- Directs the Chairman of the FCC, in coordination with the Secretary, to submit an annual report to the House Committee on Energy and Commerce, House Committee on Agriculture, Senate Committee on Commerce, Science and Transportation, and Senate Committee on Agriculture, Nutrition, and Forestry describing a comprehensive rural broadband strategy.

- Directs GAO, not later than 30 months after enactment, to submit a study to the House Committee on Agriculture and the Senate Committee on Agriculture, Nutrition, and Forestry which examines how RUS makes decisions in allocating federal broadband benefits, what economic forces prompt applicants to seek federal funding rather than relying on the private market, how RUS awards impact

the expansion of broadband infrastructure by the private sector; and to recommend what changes to federal policy are needed to further encourage technology expansion by private broadband service providers.

- "Connect the Nation Act." Directs the Department of Commerce to award grants encouraging state initiatives to improve broadband service. The grants would go to nonprofit organizations which would — working with state agencies — develop and implement statewide initiatives to identify, track, and map the availability and adoption of broadband services within states. Authorizes $40 million for each of fiscal years FY2008 through FY2012.

Appropriations Legislation

On July 19, 2007, the House Appropriations Committee approved the FY2008 Agriculture, Rural Development, Food and Drug Administration, and Related Agencies appropriations bill (H.R. 3161; H.Rept. 110-258). The Committee approved $6.45 million to support a loan level of $300 million for the broadband loan program, and $17.82 million for broadband community connect grants (twice the FY2007 level). In report language, the Committee expressed concern over broadband loans to areas with existing providers, and directed the USDA Office of the Inspector General to conduct a comprehensive follow-up study reexamining the RUS broadband loan program. Specifically, the report is directed to detail: how many unserved households were included in approved RUS Broadband Loan Program applications; how many applications were granted to applicants proposing to serve areas where one or more private broadband providers already offered service; how many approved loans (and their total amount) have defaulted since the program's inception; and how many applicants who have been approved for loans have subsequently withdrawn from the program due to the eventually discovered infeasibility of the approved project.

In report language, the House Appropriations Committee also expressed concern over the administration of the broadband loan program, and noted USDA's failure to obligate available resources to fund broadband projects. According to the Committee, USDA will carry over $10.643 million from FY2007 to FY2008, which will support an additional program (loan) level of $495 million. Regarding the proposed RUS broadband loan program rule, the Committee "expects the Department to prioritize deployment of broadband service to households with no or limited broadband access." Finally, the Committee recommended $250,000 to the USDA Economic Research Service to research deployment of broadband service to households with no or limited access to broadband, and to study the economic impact of not having broadband on rural communities and their growth, community facilities, access to healthcare, and well being.

Also on July 19, 2007, the Senate Appropriations Committee approved its version of the FY2008 agriculture appropriations bill (S. 1859; S.Rept. 110-134). The Committee approved $10.643 million to support a loan level of $495 million for the broadband loan program, and $8.9 million for broadband grants.

On December 26, 2007, the President signed the Consolidated Appropriations Act, 2008 (P.L. 110-161). The bill provided $6.45 million to support a loan level of $300 million for the broadband loan program, and $13.5 million for broadband community connect grants. The Joint Explanatory Statement accompanying P.L. 110-161 directed USDA to evaluate and report on the potential of a combination loan/grant broadband program to expand the reach and more effectively utilize broadband resources.

Legislation in the 110th Congress

H.R. 2035 (Herseth Sandlin)

Rural Broadband Improvement Act. Narrows the definition of "eligible rural community" in order that communities in suburban areas and near urban areas would no longer be eligible for broadband loans. Specifically, an eligible rural community would be defined as any area that is not included within a community of more than 15,000 inhabitants, that is not included within the boundaries of an urbanized area or urban cluster, and that is not located within 10 miles of any such city, town, village, or borough, or any urbanized area of urban cluster. Additionally, seeks to limit loans awarded to applicants proposing to serve areas that already have a broadband provider. Borrowers serving eligible communities that are at least 50% already served would only be eligible for an RUS broadband loan equivalent to the portion of households that remain unserved. Introduced April 25, 2007; referred to the Committee on Agriculture and the Committee on Energy and Commerce.

H.R. 2174 (Salazar)

Rural Broadband Initiative Act of 2007. Establishes an Office of Rural Broadband Initiatives within the Department of Agriculture which will administer all rural broadband grant and loan programs previously administered by the Rural Utilities Service. Also establishes a National Rural Broadband Innovation Fund which would fund experimental and pilot rural broadband projects and applications. Introduced May 3, 2007; referred to Committee on Agriculture and to Committee on Energy and Commerce.

H.R. 2419 (Peterson)

Farm, Nutrition, and Bioenergy Act of 2007. Reauthorizes broadband program at the Rural Utilities Service through FY2012. Introduced May 22, 2007; referred to Committee on Agriculture, and in addition to Committee on Foreign Affairs. Reported by House Committee on Agriculture (H.Rept. 110-256) on July 23, 2007. Passed by House, July 27, 2007. Passed by Senate with an amendment, December 14, 2007.

H.R. 2569 (Graves)

Rural Broadband Deployment Act. Codifies certain changes proposed by USDA to the rules governing eligibility for the rural broadband access program. Specifically, would relax market survey requirements and eliminate the credit support requirement, including the cash-on-hand requirement. Introduced June 5, 2007; referred to Committee on Agriculture, and in addition to the Committee on Energy and Commerce.

H.R. 2720 (Kind)

FARM 21 Act of 2007. Amends the Farm Security and Rural Investment Act of 2002 to direct that the Secretary of USDA shall make available funds of the Commodity Credit Corporation to the rural broadband loan program as follows: $10 million for each of fiscal years 2008 through 2012. Also specifies criteria to be applied by USDA in considering applications for all rural development projects. Introduced June 14, 2007; referred to Committee on Agriculture, and in addition to the Committees on Education and Labor, Foreign Affairs, and Ways and Means.

H.R. 2764 (Lowey)

Consolidated Appropriations Act, 2008. Provides $6.45 million to support a loan level of $300 million for the broadband loan program, and $13.5 million for broadband community connect grants. Signed by President, December 26, 2007.

H.R. 2953 (Space)

Rural Broadband Access Enhancement Act. Seeks to redefine "eligible rural community, streamline application process and lowers equity requirements, restricts loans to communities with existing broadband providers, eliminates limitation on eligibility based on number of subscriber lines, sets 35 year maximum on term of loan repayment, and directs USDA/RUS to meet specific reporting requirements. Introduced July 10, 2007; referred to Committee on Agriculture and Committee on Energy and Commerce.

H.R. 3161 (DeLauro)

Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations, 2008. Provides $6.45 million to support a loan level of $300 million for the broadband loan program, and $17.82 million for broadband community connect grants. Introduced July 24, 2007; referred to Committee on Appropriations. Reported by Committee on Appropriations, July 24, 2007 (H.Rept. 110-258; placed on Union Calendar.

S. 541 (Feingold)

Rural Opportunities Act of 2007. Directs the FCC to collect more detailed broadband deployment data and to periodically revise its definition of broadband above 200 kbps. Directs the Secretary of Agriculture to report on the adoption or planned adoption of the recommendations contained in the September 2005 audit report by the Inspector General of the United States Department of Agriculture. Introduced February 8, 2007; referred to Committee on Agriculture, Nutrition and Forestry.

S. 1032 (Clinton)

Rural Broadband Initiative Act of 2007. Establishes an Office of Rural Broadband Initiatives within the Department of Agriculture which will administer all rural broadband grant and loan programs previously administered by the Rural Utilities Service. Also establishes a National Rural Broadband Innovation Fund which would fund experimental and pilot rural broadband projects and applications. Introduced March 29, 2007; referred to Committee on Agriculture, Nutrition, and Forestry.

S. 1439 (Roberts)

Rural Broadband Improvement Act of 2007 (Section 1). Section 2 reauthorizes the RUS broadband program through 2012, and makes available from funds of the Commodity Credit Corporation $20 million for fiscal years 2008 through 2010, and $10 million for fiscal years 2011 and 2012. Section 3 clarifies an "eligible rural area" as any area other than a city or town with a population greater than 20,000, the urbanized area contiguous and adjacent to such a city or town, and an area determined by the Secretary of Agriculture to be predominantly urban in character. Additionally, loans are not allowed unless the Secretary determines that no duplication of terrestrial lines, facilities, or systems would result. However, the Secretary can waive the prohibition on duplication if at least 75% of end users served by the proposed project are without broadband access, and if it is determined that such duplication is necessary in order to furnish or improve broadband service in an eligible rural area. Loan applicants must submit to RUS broadband deployment data for each existing incumbent broadband service provider in the proposed project service area. A 30-day public comment period will be initiated for each proposed loan.

Section 4 accelerates the loan application process by requiring a 180-day processing period while simplifying and/or eliminating certain loan application requirements, and authorizes RUS to hire additional staff, if necessary, to process loan applications. Section 5 eliminates the current statute's prohibition on awarding loans to any entity serving 2% or more of the telephone subscriber lines in the United States. Section 6 establishes a $20 million per year grant program at RUS which would be awarded to state-selected nonprofit organizations in order to help states develop and implement initiatives to identify and track the availability and adoption of broadband services within rural areas. Section 7 reduces the current 20% credit support requirement to a 10% equity requirement for broadband loan applicants. This requirement may be modified or waived if the applicant meets certain standards of financial feasibility. Section 8 sets a maximum term of the loan at 35 years, and Section 9 clarifies the technological neutrality standard as including DSL, fiber-optic cable, coaxial cable, wireless technology, and satellite. Introduced May 21, 2007; referred to Committee on Agriculture, Nutrition, and Forestry.

S. 1859 (Kohl)

Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations, 2008. Provides $10.643 million to support a loan level of $495 million for the broadband loan program, and $8.9 million for broadband grants. Introduced July 24, 2007; referred to Committee on Appropriations. Reported to Senate (S.Rept. 110-134) July 24, 2007; placed on Senate Legislative Calendar.

S. 2302 (Harkin)

Food and Energy Security Act of 2007. Reauthorizes broadband program at the Rural Utilities Service through FY2012. Introduced November 2, 2007. Senate Committee on Agriculture, Nutrition, and Forestry reported measure to Senate (S.Rept. 110-220) November 2, 2007; placed on Senate Legislative Calendar.