Economic Benefits of Broadband Deployment In Rural Areas

Bringing broadband services to rural areas does present some challenges. Because rural systems must contend with lower household density than urban systems, the cost to deploy fiber-to-the-home (FTTH) and digital subscriber line (DSL) systems in urban communities is considerably lower on a per household basis, making urban systems more economical to construct. Other associated rural issues, such as environmental challenges or providing wireless service through mountainous areas, also can add to the cost of deployment. Notwithstanding these challenges and obstacles, a recent analysis by USDA’s Economic Research Service concluded that broadband investment in rural areas yields significant economic and socio-economic gains:

Analysis suggests that rural economies benefit generally from broadband availability. In comparing counties that had broadband access relatively early (by 2000) with similarly situated counties that had little or no broadband access as of 2000, employment growth was higher and nonfarm private earnings greater in counties with a longer history of broadband availability. By 2007, most households (82 percent) with in-home Internet access had a broadband connection. A marked difference exists, however, between urban and rural broadband use—only 70 percent of rural households with in-home Internet access had a broadband connection in 2007, compared with 84 percent of urban households. The rural-urban difference in in-home broadband adoption among households with similar income levels reflects the more limited availability and affordability of broadband in rural settings.

Areas with low population size, locations that have experienced persistent population loss and an aging population, or places where population is widely dispersed over demanding terrain generally have difficulty attracting broadband service providers. These characteristics can make the fixed cost of providing broadband access too high, or limit potential demand, thus depressing the profitability of providing service. Clusters of lower service exist in sparsely populated areas, such as the Dakotas, eastern Montana, northern Minnesota, and eastern Oregon. Other low-service areas, such as the Missouri-Iowa border and Appalachia, have aging and declining numbers of residents. Nonetheless, rural areas in some States (such as Nebraska, Kansas, and Vermont) have higher-than-expected broadband service, given their population characteristics, suggesting that policy, economic, and social factors can overcome common barriers to broadband expansion.

In general, rural America has shared in the growth of the Internet economy. Online course offerings for students in primary, secondary, post-secondary, and continuing education programs have improved educational opportunities, especially in small, isolated rural areas. And interaction among students, parents, teachers, and school administrators has been enhanced via online forums, which is especially significant given the importance of ongoing parental involvement in children’s education.

Telemedicine and telehealth have been hailed as vital to health care provision in rural communities, whether simply improving the perception of locally provided health care quality or expanding the menu of medical services. More accessible health information, products, and services confer real economic benefits on rural communities: reducing transportation time and expenses, treating emergencies more effectively, reducing time missed at work, increasing local lab and pharmacy work, and providing savings to health facilities from outsourcing specialized medical procedures. One study of 24 rural hospitals placed the annual cost of not having telemedicine at $370,000 per hospital. (See http://www.ers.usda.gov/Publications/ERR78/ERR78.pdf, at pages iv and 24.)

Most employment growth in the U.S. over the last several decades has been in the service sector, a sector especially conducive for broadband applications. Broadband allows rural areas to compete for low- and high-end service jobs, from call centers to software development, but does not guarantee that rural communities will get them. Rural businesses have been adopting more e-commerce and Internet practices, improving efficiency and expanding market reach. Some rural retailers use the Internet to satisfy supplier requirements. The farm sector,
a pioneer in rural Internet use, is increasingly comprised of farm businesses that purchase inputs and make sales online. Farm household characteristics such as age, education, presence of children, and household income are significant factors in adopting broadband Internet use, whereas distance from urban centers was not a factor. Larger farm businesses are more apt to use broadband in managing their operation; the more multifaceted the farm business, the more the farm used the Internet.¹

An analysis based on approximately $1.8 billion in approved loans in the Farm Bill Broadband Program (based on multiple technology platforms) yielded the following results (numbers have been rounded):

- Number of communities funded: 2,800
- Average cost per community: $640,000
- Total subscribers: 1.3 million

Most recently, the agency has concluded funding the American Recovery and Reinvestment Act (Recovery Act) Broadband Initiatives Program (BIP) that financed the same types of facilities and entities that are funded under this Farm Bill program. The Recovery Act authorized RUS to issue loans and grants to projects that extend broadband service to unserved and underserved rural areas. The funding provided by the Recovery Act is increasing the availability of broadband and stimulating both short- and long-term economic progress. RUS BIP completed two funding rounds, making a significant investment in projects that will enhance broadband infrastructure in scores of rural communities. This represents a critical investment, designed to rebuild and revitalize rural communities. Without this funding, many communities could not cover the costs of providing broadband service to homes, schools, libraries, health care providers, colleges, and other anchor institutions.

RUS awarded $3.4 billion to 297 recipients in 45 States and 1 U.S. territory for infrastructure projects. Eighty-nine percent of the awards and 92 percent of the total dollars awarded are for 285 last-mile projects ($3.25 billion), which will provide broadband service to households and other end users. Four percent of the awards and five percent of the total dollars awarded are for 12 middle-mile projects ($173 million) that will provide necessary backbone services such as interoffice transport, backhaul, Internet connectivity, or special access to rural areas. The projects funded will bring broadband service to 2.8 million households, reaching nearly 7 million people, 364,000 businesses, and 32,000 anchor institutions across more than 300,000 square miles. These projects also overlap with 31 tribal lands and 124 persistent poverty counties, traditionally the most costly to serve areas.

As noted in the ERS study, rural areas with dispersed populations or demanding terrain generally have difficulty attracting broadband service providers because the fixed cost of delivering broadband service can be too high. Yet broadband is a key to economic growth. For rural businesses, broadband gives access to national and international markets and enables new, small, and home-based businesses to thrive. Broadband access affords rural residents the connectivity they need to obtain healthcare, education, financial, and many other essential goods and services.

Catalog of Federal Domestic Assistance

The Catalog of Federal Domestic Assistance (CFDA) number assigned to this program is 10.886, Rural Broadband Access Loans and Loan Guarantees. The Catalog is available on the Internet and the General Services Administration’s (GSA’s) free CFDA Web site at http://www.cfda.gov.

Executive Order 12372

This rule is excluded from the scope of Executive Order 12372, Intergovernmental Consultation, which may require a consultation with State and local officials. See the final rule related notice entitled, “Department Programs and Activities Excluded from Executive Order 12372” (50 FR 47034).

Information Collection and Recordkeeping Requirements

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35, as amended), the information collection for this program has been approved by the Office of Management and Budget under OMB Control Number: 0572–0130.

National Environmental Policy Act Certification

The Administrator has determined that this rule will not significantly affect the quality of the human environment as defined by the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.). Therefore, this action does not require an environmental impact statement or assessment.

Regulatory Flexibility Act Certification

It has been determined that the Regulatory Flexibility Act is not applicable to this rule because the Agency is not required by 5 U.S.C. 551 et seq. or any other provision of law to publish a notice of proposed rulemaking with respect to the subject matter of this rule.

Executive Order 12988

This rule has been reviewed under Executive Order 12988, Civil Justice Reform. The Agency has determined that this rule meets the applicable standards provided in section 3 of the Executive Order. In addition, all state and local laws and regulations that are in conflict with this rule will be preempted, no retroactive effect will be given to this rule, and, in accordance with Sec. 212(e) of the Department of Agriculture Reorganization Act of 1994 (7 U.S.C. Sec. 6912(o)), administrative appeal procedures, if any, must be exhausted before an action against the Department or its agencies may be initiated.

Unfunded Mandates

This rule contains no Federal mandates (under the regulatory provisions of Title II of the Unfunded Mandates Reform Act of 1995) for State, local, and tribal governments for the private sector. Thus, this rule is not subject to the requirements of section 202 and 205 of the Unfunded Mandates Reform Act of 1995.

Executive Order 13132, Federalism

The policies contained in this rule do not have any substantial direct effect on states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Nor does this rule impose substantial direct compliance costs on state and local governments. Therefore, consultation with the states is not required.

Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

USDA has undertaken a series of regulation Tribal consultation sessions to gain input by Tribal officials concerning the impact of this rule on Tribal governments, communities, and individuals. These sessions will establish a baseline of consultation for future actions, should any become necessary, regarding this rule. Reports from these sessions for consultation will

¹ Broadband Internet’s Value for Rural America. Peter Stenberg, Mitch Morehart, Stephen Vogel, John Cromartie, Vince Brenerman, and Dennis Brown.
be made part of the USDA annual reporting on Tribal Consultation and Collaboration. USDA will respond in a timely and meaningful manner to all Tribal government requests for consultation concerning this rule and will provide additional venues, such as webinars and teleconferences, to periodically host collaborative conversations with Tribal leaders and their representatives concerning ways to improve this rule in Indian country.

E-Government Act Compliance

The Agency is committed to the E-Government Act, which requires Government agencies in general to provide the public the option of submitting information or transacting business electronically to the maximum extent possible.

Background

A. Introduction

The Agency improves the quality of life in rural America by providing investment capital for deployment of rural telecommunications infrastructure. Financial assistance is provided to rural utilities; municipalities; commercial corporations; limited liability companies; public utility districts; Indian tribes; and cooperative, nonprofit, limited-dividend, or mutual associations. In order to achieve the goal of increasing economic opportunity in rural America, the Agency finances infrastructure that enables access to a seamless, nationwide telecommunications network. With access to the same advanced telecommunications networks as its urban counterparts, especially broadband networks designed to accommodate distance learning, telework, and telemedicine, rural America will eventually see improving educational opportunities, health care, economies, safety and security, and ultimately higher employment. The Agency shares the assessment of Congress, State and local officials, industry representatives, and rural residents that broadband service is a critical component to the future of rural America. The Agency is committed to ensuring that rural America will have access to affordable, reliable, broadband services and to provide a healthy, safe, and prosperous place to live and work.

B. Regulatory History

On May 13, 2002, the Farm Security and Rural Investment Act of 2002, Public Law 107–171 (2002 Farm Bill) was signed into law. The 2002 Farm Bill amended the Rural Electrification Act of 1936 to include Title VI, the Rural Broadband Access Loan and Loan Guarantee Program (Broadband Loan Program), to be administered by the Agency. Title VI authorized the Agency to approve loans and loan guarantees for the costs of construction, improvement, and acquisition of facilities and equipment for broadband service in eligible rural communities. Under the 2002 Farm Bill, the Agency was directed to promulgate regulations without public comment. Implementing the program required a different lending approach for the Agency than it employed in its earlier telephone program because of the unregulated, competitive, and technologically diverse nature of the broadband market. Those regulations were published on January 30, 2003.

In an attempt to enhance the Broadband Loan Program and to acknowledge growing criticism of funding competitive areas, the Agency proposed to amend the program’s regulations on May 11, 2007 at 72 FR 26742 to make eligibility of certain service areas more restrictive than set out in the 2002 Farm Bill. In addition to eligibility changes, the proposed rule included, among others, changes to persistent problems the Agency had encountered while implementing the program over the years, especially regarding equity requirements, the market survey, and the legal notice requirements. As the Agency began analysis of the public comments it received on the proposed regulations, the Food, Conservation, and Energy Act of 2008, more commonly known as the 2008 Farm Bill, was working its way through Congress. The proposed rule and key aspects of the public comments were shared with Congress during its deliberations, and the majority of the proposed changes in the proposed rule were incorporated into the legislation, with some modifications. For instance, the proposed rule lowered the equity requirement from 20 percent of the loan value to 10 percent. Congress enacted that change.

Other changes the Congress incorporated included several new restrictions not found in the 2002 Farm Bill. These were in response to growing public criticism of federally funded competition. First, funding is restricted in areas that contain 3 or more incumbent service providers, which is defined as serving not less than 5 percent of the proposed service area for each existing service provider. Second, a requirement was added that at least 25 percent of the households in the proposed service area do not have access to more than one incumbent service provider. And third, for incumbent service providers that were merely upgrading the quality of broadband service in their existing service territory, the prior restrictions on competition (i.e., 3 or more providers) would be waived.

In response to the debate on what was rural, the 2008 Farm Bill relaxed the restriction to allow urbanized areas that were not adjacent and contiguous to areas with a population of more than 50,000 inhabitants to be eligible for funding. And lastly, the 2008 Farm Bill incorporated the concept of not requiring market studies for applicants that relied on a penetration rate of less than 20 percent for the loan to be feasible.

In the public interest of having a Broadband Program in place to quickly address the needs of the hundreds of applications that were not funded under the Recovery Act, and in light of the fact that the great majority of changes herein are mandated by the 2008 Farm Bill, or have been proposed in the Agency’s prior rule, put out for comment, the Agency proceeded forward with certain changes to the Broadband Loan Program by publishing an interim rule in the Federal Register at 76 FR 13770, on March 14, 2011.

C. Comments and Responses

In its Interim Rule, published in the Federal Register March 14, 2011 at 76 FR 13770, the agency requested comments regarding the new procedures implementing the 2008 Farm Bill. The agency received seven sets of comments from the following organizations/individuals:

- National Cable & Telecommunications Association
- Eastern Rural Telecom Association
- United States Telecom Association
- The Associations (Western Telecommunications Alliance; Organization for the Promotion and Advancement of Small Telecommunications Companies; and National Telecommunications Cooperative Association)
- Monte R. Lee and Company
- XATel Communications
- Jaclyn Bee

These comments have been summarized and addressed below:

Broadband Lending Speed

Comment: Several respondents took issue with the definition of Broadband Lending Speed. The respondents asserted that the differentiation in speeds proposed between wireline and wireless technologies is in violation of the agency’s “technology neutral” mandate and should be eliminated.
Several respondents also stated that the initial speeds set forth in the Notice of
Funds Availability (NOFA) are too low and must be increased to keep pace with
the rapidly growing need for increased consumer bandwidth demands. One
respondent said the bifurcation between wireline speed and wireless speed
would create a “rural—rural divide,” subjecting some areas, mainly the most
rural, to a lower standard.

Response: With regard to the charge
that the agency is in violation of its
“technology neutral” mandate, RUS
believes, in fact, that it is protecting
this mandate by establishing different
performance thresholds based on the
limitations of different technologies.
Specifically, in the preamble to the
interim rule published in the Federal
Register March 14, 2011 (76 FR 13770),
the agency states: “In order to treat all
eerging technologies equally, the
Agency may designate a different
broadband lending speed for fixed and
mobile broadband service.” Further, this
policy is consistent with the statutory
directive provided in the 2008 Farm Bill
(Pub. L. 110–234): “The Secretary shall
determine the availability of
broadband search.sc.egov.usda.gov/
Achieving a fair and unbiased prioritization method is
difficult at best, particularly in an
industry as diverse in service providers and
technologies as the broadband
industry is. The agency has clearly
placed the highest priority on
applications proposing to serve
unserved areas. Further, those areas
where three-quarters of the households
do not have access to broadband service
are the 2nd level of priority. Beyond
that, applications with a varying mix
of served and unserved households and
that are within the statutory
requirements (between 25 percent and
74 percent served) will be processed as
received. As can be seen, the agency has
clearly established a prioritization
regime that targets the greatest
proportion of unserved households.

Regarding the issue of factoring “scalability” into prioritization process,
the agency does not believe this is
practicable in keeping with its
“technology neutral” mandate. Specifically, different technologies have
different degrees of evolution
capabilities and hence different
“scalability” requirements that are not
comparable.

With regard to the number of
incumbent service providers within a
proposed service area, the agency
intends to use all available resources to
identify incumbents, including
knowledge of the existing territory
through field staff visits, as well as state
and federal mapping resources, such as
the National Broadband Map. When
determining whether an area is eligible
for financing, the agency will rely on
responses to the applicants’ proposed
funded service area maps from
incumbents. The agency through its
own competitive analysis may identify
other providers that did not respond to
the public notice. In determining the
feasibility of a project in such a
situation, the agency would of course
factor in all identified, non-incumbent
service providers.

Finally, attempting to consider future
development of a certain level of
broadband service is not practical.
Relying on advertised deployment has
proven to be inaccurate in many
instances.

Public Notice Process (Notification)

Comment: One respondent objected to
the 30-day notification window within
which existing service providers can
provide notice that they are providing
services in the applicant’s proposed
service territory. Specifically, the
respondent stated that 30 days was not
sufficient enough time to conduct a
manual search of the agency’s database
to determine on an ongoing basis if
indeed an application had been filed to
serve an existing entity’s territory. The
respondent recommends that either the
agency increase the timeframe to 45 to
60 days or create an internet-based
subscription service that would
automatically alert subscribers to that
service that an application had been
filed in a particular service territory.

Response: The agency has established
a subscription service. See

RUS Protection of Previously Funded
Entities

Comment: One respondent was
supportive of the policy of “not loaning
against” existing RUS borrowers. One
respondent strongly opposed this
policy, stating this “* * * prohibition
on funding areas served by existing RUS
recipients demonstrates that the agency
recognizes that subsidized entry has
effects on incumbent providers serving the same area.”

Response: The agency’s policy of “not
lending against itself” is primarily
designed to protect taxpayer investment
in publicly funded areas. However,
borrowers are expected to maintain
investment levels sufficient to ensure
that borrowers provide modern
broadband services. If it becomes
apparent that previously funded
borrowers are not providing adequate
broadband service and meeting
customer demands, the agency will
reconsider this policy. So, if necessary in
order to expand access to an area where
an RUS borrower is not providing
adequate broadband service, the Agency
may lend against its borrower.

Similarly, this is the reason why the
Agency may make loans where an
existing entity is providing some
broadband service but limits its service
 territory only to the more dense areas
(in town). A loan that leverages in town
customers’ revenues in order to expand
service beyond town limits can achieve
greater access for more sparsely
populated rural areas.

Prompt Review of Loan Applications

Comment: One respondent called on
the agency to “review applications in a
timely fashion.” Specifically, the
respondent supported a 180-day deadline for application processing.

Response: The quality and “completeness” of applications play a vital role in the ability of the agency to promptly process loans. Those applications that are complete and contain all of the required supporting information and documentation can be processed more quickly. Applications with missing information, for example, cause major delays.

The Agency, through this rulemaking, has clearly established what constitutes a complete application. All other applications will be promptly returned. RUS strives to offer the best customer service and will continue its goal to provide shorter application processing times. Both the agency and the applicants share the responsibility for ensuring prompt application processing.

Additional Cash Requirement

Comment: One respondent, while recognizing “the need to require additional constraints on newly formed and under performing companies,” stated that allowing only 50 percent of the projected revenues as a contribution to the “Additional Cash Requirement” provision was too burdensome and most likely would result in infeasible applications. The respondent recommended that a leniency test should be established for existing companies that project negative cash flow for material reasons (such as tax planning, cash used for other businesses, etc.). In addition, the respondent expressed concern regarding the costs of video content, arguing that, for many rural providers, video service is not a revenue producer, but rather is offered as a means to increase overall subscriber penetration rates. As such the respondent proposed eliminating 50 percent of the expense projection associated with providing video service when determining the additional cash requirements.

Response: Rather than penalizing start-ups or companies experiencing shortages of cash flow, the additional cash requirement provision allows applicants that are in a weak financial situation to maintain eligibility by providing a method for augmenting their security for the project and increasing the likelihood that the project can be completed. Hence, it provides an avenue for moving less stable projects forward.

With regard to video expenses, the agency sees no reason to arbitrarily “reduce” any expense category. In fact, for the reason offered by the respondent, if revenues to be derived by the incurrence of such an expense are insufficient to cover that expense, decreasing the expense category in the pro forma only inflates or overstates profits in what may be an otherwise unprofitable proposal.

Government Subsidized Competition

Comment: One respondent objected strongly to what it referred to as the “continuing problem of RUS subsidizing broadband deployment in areas where other providers already offer broadband service.” The respondent argues that in a competitive environment, “a program in which a government agency funds one set of competitors against other companies that have invested private capital to provide the same service in the same geographic areas is wholly inappropriate and should be terminated.” The respondent recommended that a competitive award process be used to target unserved areas with grant funds—those being areas that cannot on their own support a business case to attract investment. The respondent also noted that loans were allowed to be made in areas where two existing providers are offering service, because the statute (Farm Bill) provides for such a scenario. Citing an extreme, hypothetical example, the respondent noted that even though one provider may be currently offering service to 100 percent of an area and the other provider is offering service to 25 percent of the same area, the provisions of the Farm Bill would enable a third provider to be funded in the same area. Finally, the respondent stated that “RUS should amend the rules to make clear that [loans to companies for] upgrades [as opposed to new service territory] are subject to the same requirements as [for loans for] initial builds.” The respondent requested that this perceived “loophole” be closed.

Response: At its base, the number of incumbent service providers merely establishes whether a proposed service territory is eligible or not. It in no way implies that funds would be awarded, since other factors affecting feasibility (like competition and service offerings) must also be considered. In the example offered (however impracticable), most likely a loan would not be feasible unless the incumbents’ services were of such poor quality that a new entrant would be welcome and would easily take away subscribers. The respondent also recommends that the agency use grant funds to target those areas deemed undesirable and left unserved by incumbents, noting that a “business case” will not work in those areas. First, the 2008 Farm Bill does not provide any grant authority for the Broadband Program. This is precisely why it is permissible for applicants to be able to provide service where some service already exists. The Treasury rate government financing provides for continued, long-term investment while leveraging private capital in a fiscally responsible manner. The ability of an applicant to reach out to long ignored, unserved households outside “the business case” of incumbents relies on those applicants finding a balance between low cost and high cost service territories, which will create some duplicative (but necessary) service areas.

With regard to upgrades within an incumbent’s own service territory, this allows those areas to keep pace with technology improvements and to upgrade facilities based on customer demand. Again, this (like the number of service providers) is an eligibility criterion. It does not guarantee funding. Should the competitive environment not support a new loan, the loan would not be made.

Discount USF and ICC Revenues in Feasibility Analysis

Comment: One respondent encourages the agency to “reconsider how it evaluates the business case for applicants that are heavily dependent on high-cost universal service support and intercarrier compensation” revenues. The respondent argued that “the way that RUS considers USF receipts takes on even more urgency in light of the FCC’s proposals to reform the high-cost universal service support regime.” The respondent encourages RUS to discount the amount of any high-cost support when assessing financial feasibility. The respondent had similar concerns with respect to intercarrier compensation revenues. Further, the respondent encouraged RUS not to award any new loans until the interim rule is final and the FCC moves forward and presumably resolves the USF/ICC reforms.

Response: The Agency is working closely with the FCC to ensure that rural communities continue to have access to broadband services. In light of recent actions by the FCC, the Agency is revising its underwriting procedures to correspond with new FCC principals regarding universal service revenues.

Navigant Study

Comment: One respondent asserts that “the interim rules perpetuate many of the same problems that have plagued the Broadband Loan Program for the last decade and, absent changes, will not be an effective mechanism for achieving the national goal of universal broadband
activity.” The respondent claims documentation in support of this in a report prepared by Dr. Jeffery Eisenach and Kevin Caves of Navigant Economics. The report was issued as an assessment of the American Re-investment and Recovery Act (Recovery Act) Broadband Initiatives Program (BIP). The respondent, in referencing the report, claims that “RUS consistently has provided broadband funding to entities in areas where broadband already is made available by cable operators and other broadband providers without government subsidy.” In addition, the report states that RUS, in its Recovery Act program, defined eligibility for BIP funding based on the percentage of geographic area that was unserved, rather than the percentage of households that were unserved.

Response: As the study was related to the BIP program, its findings are not applicable to this final rule proceeding. The BIP program was a one-time funding opportunity under the Recovery Act and has concluded. No new applications or financing will occur under that program. However, since the issues raised imply that the RUS, in its implementation of this final rule, is acting in a manner inconsistent with its statute implementing the Farm Bill program, we address the concerns raised in the report below.

The study, Evaluating the Cost-Effectiveness of RUS Broadband Subsidies: Three Case Studies, suffers from a number of fundamental flaws:

1. The study frequently misquotes, misinterprets, or misattributes statutory and regulatory language associated with rural broadband development.
2. The study creates a more lenient definition of what it considers “served” than is used by RUS, or the FCC to support its claim that BIP projects provide duplicative service.
3. The study relies heavily on data that became available only after the BIP application evaluation process had to be completed.
4. The study employs questionable metrics to determine key statistical data. These flaws, individually and when taken together, produce meaningful inaccuracies in both the evidence and arguments in the study. When claims within the study are compared to the relevant legislation and/or information, it is clear that the study’s conclusion—that RUS’ ARRA broadband program served areas that it should not have—is inaccurate. RUS complied with all applicable legislation using information available at the time of the application assessments.

1. Misrepresentation of ARRA’s Goals
   The study claims: “ARRA requires that NTIA and RUS limit funding to ‘unserved’ or ‘underserved’ areas, and specifically instructs RUS to give priority to underserved areas” (p. 2). The study goes on to state that BIP provides duplicative service to areas that already have broadband access, and therefore RUS did not limit funding to unserved and underserved areas.

   The claim above misrepresents ARRA’s requirements regarding broadband development and RUS’ administrative role under BIP. ARRA does require that BIP funds be used to serve areas with limited access to broadband service, requiring that “at least 75 percent of the area to be served by a project receiving funds, grants, or loan guarantees shall be in a rural area without sufficient access to high speed broadband service to facilitate rural economic development.” However, it does not limit funding to unserved and underserved areas.2 In fact, ARRA explicitly allows up to 25 percent of the project area to be in areas that have broadband service. When evaluating BIP applications, RUS used available information to follow ARRA guidelines to ensure that funding is limited to areas that fall within this requirement.

   In addition, ARRA provides “that priority for awarding such funds shall be given to project applications for broadband systems that will deliver end users a choice of more than one service provider” (p. 3). Awarding funds to provide a choice of more than one service provider will, by definition, involve funding projects in areas where some service already exists.

2. Lenient and Misattributed Definition of Unserved
   The study exaggerates the extent of duplicative services by using a definition of broadband speed that is not consistent with ARRA's economic development goals.

   The study applies a misleading label of “RUS definition” to the notion that an unserved housing unit is: “an occupied housing unit not passed by (a) wireline-based broadband services (cable or DSL); or (b) fixed wireless broadband services.” (p. 19)3

   However, this definition is incorrect. BIP NOFAs #1 and #2 (74 FR 33104, 7/9/09 and 75 FR 3820, 1/22/10, respectively) offer different definitions of “unserved”, but neither excludes mobile broadband:

   NOFA #1 definition: “composed of one or more contiguous census blocks where at least 90% of households lack access to facilities-based, terrestrial broadband service, either fixed or mobile, at the minimum broadband speed: at least 768 kbps downstream and at least 200 kbps upstream to end users, or providing sufficient capacity in a middle mile project to support the provision of broadband service to end users.”

   NOFA #2 definition: “a service area with no access to facilities-based terrestrial broadband; at the minimum broadband transmission speed [at least 768 kbps downstream and at least 200 kbps upstream to end users, or providing sufficient capacity in a middle mile project to support the provision of broadband service to end users]."4

   RUS’ definitions of unserved are not based on technology, as implied by the incorrect definition stated in the study. Instead, RUS’s funding decisions were based on a minimum broadband speed, below which an area is considered to be without “sufficient access to high speed broadband service to facilitate rural economic development.”5

3 In developing the BIP program, RUS determined that broadband speeds below 768 kbps downstream and 200 kbps upstream to end users could not be suitable for economic development purposes.6 BIP funding decisions were made using information available at the time of application review on the existence of service availability at speeds reaching at least this minimum level of service. The study’s analyses, however, do not utilize data for service availability at this minimum speed. Instead, the study’s analyses accept a 600 kbps threshold that does not meet the minimum speed determined to be suitable for economic development purposes. Tables Four, Six, and Eight of

2 See Federal Register, 74 FR 33104, Notices, Department of Agriculture Rural Utilities Service RIN 0572–ZA01, Broadband Initiatives Program, definitions for “unserved” and “broadband”.

3 See Federal Register, 75 FR 3820, Notices, Department of Agriculture Rural Utilities Service RIN 0572–ZA01, Broadband Initiatives Program, definitions for “unserved” and “broadband”.

4 See the American Recovery and Reinvestment Act of 2009.

5 This standard was established following the FCC’s definition of “Basic Broadband” service, defined as a connection speed tier of between 768Kbps and 1.5Mbps. See FCC 08–88, June 12, 2008, Statement of Chairman Kevin J. Martin, Pg. 43.
the study and the associated Figures Three, Seven, and Ten are thereby all inaccurate because they count services at speeds under 768/200 kbps.

The study further asserts that 3G technology will soon be updated to exceed the FCC established 768 kbps threshold, and therefore should have been included in RUS’ considerations regardless of the technology’s current speed. However, a fair and reasonable evaluation of applications by RUS could not have been made using future, proposed, uncommitted investment possibilities.

3. Information Available After the BIP Application Evaluation Process

The following tables and figures cite information that became available after the BIP application evaluation process; these graphics are the foundation for the study’s arguments and conclusions:
- Tables Four, Six, and Eight of the study make use of data from NTIA’s National Broadband Map (NBM), which was not available at the time of the BIP application evaluation process.
- Figure Six cites the Kansas Corporation Commission, Report to the Legislature Regarding the Availability of Broadband Services in the State of Kansas (January 2011), which is after the BIP application evaluation process was complete.
- Warren’s Cable Factbook is cited for Figures 2, 3, 5, and 7. The study does not include the date of the edition used. The latest edition for 2011 was released in December 2010.
- Information that became available after completion of the application evaluation process is not relevant for comparison to BIP funding decisions, which were made using the information available at the time of application review. The latest information can help inform future funding decisions under other programs, but are not relevant for assessing the quality or results of the BIP decision making processes.

4. Questionable Analytical Methodologies

In order to estimate the cost of the BIP program to the taxpayer, the report uses a “cost per incremental household passed” metric. Costs did not involve only extensions of existing networks, for which a cost per incremental household passed metric might be appropriate. Instead, the entire scope of the BIP-funded network’s coverage must be considered to accurately evaluate the cost per home passed. The “cost per incremental household passed” metric would only be appropriate if an applicant were an incumbent provider applying for funding to extend and/or enhance its network to reach unserved or underserved areas. However, none of the three awards examined in the study meet this condition.

Another approach the study uses to calculate the “actual taxpayer cost” is based on the interest rates charged to the awardees on the BIP loans. The study argues that the taxpayer is losing the difference in interest revenue between what could have been charged at the market rate and the actual interest rate being charged to awardees. The interest rate charged by RUS is “equal to the cost of borrowing to the Department of Treasury for obligations of comparable maturity”. This adheres to the ARRA requirement that loans carry the interest rate as defined in the Farm Bill 2008. The study’s approach reinterprets the law and suggests that RUS could behave like a commercial lending institution by charging market rates on the BIP loans. By using a much higher interest rate to calculate the total taxpayer cost, the study thereby inflates the cost per household passed in Tables Five, Seven, and Nine. As it is, the cost per total household passed of each project in the study is lower than both the RUS and FCC benchmarks.

The study’s method for estimating DSL boundaries is similarly faulty. Appendix 1 explains that DSL boundaries were determined by “generating a 12,000 foot radius” around “the location of the dominant central office of each wirecenter.” Such a projected radius model cannot be used to predict estimate the number of DSL subscribers that can be supported by in-place equipment. The 12,000 foot radius is technically arbitrary and no useful conclusions about potential service availability can be drawn from it alone. The study supplies no facts about DSL service availability, penetration rates, or connection speeds, nor does it supply any facts about route mileage, wire gauge, line bridging and tapping, or any other influencing technical elements.

To estimate service coverage for fixed wireless broadband and mobile wireless broadband, the study relies exclusively on carriers’ advertised coverage maps. RUS opened and advertised a public comment period for any and all existing providers and other stakeholders to provide information on coverage within the areas proposed by BIP applicants. RUS received many public comment responses, however it did not take those comments from carrier providers or other stakeholders purely at face value. Instead, RUS also gathered on-the-ground data and observations. Moreover, the study’s analytical approach did not differentiate between a service provided via a wireless carrier’s owned-and-operated network and service that is provided through roaming agreements with third-party owned networks. This flaw undermines the study’s conclusions that depend on various mobile wireless carriers’ statements that 3G and 4G upgrades are a fait accompli; many of these rural networks’ owners would likely have to find funding and develop business cases on their own before they could (or would) be upgraded.

5. Conclusion and Summary

The study’s critique is seriously flawed. Despite an obvious effort to “cherry pick” three extreme case studies, the source material cited in this response demonstrates that the study did not successfully identify any inconsistencies between RUS’ administrative decisions and the ARRA legislation or broadband availability data at the time of application evaluations.

Miscellaneous

Comment: One respondent, while noting the benefits of internet access, stated that they are benefits “of a more affluent society that is not currently in trillions of dollars in debt.” The respondent requests that, considering the high costs of program administration, implementation should be delayed.

Response: The agency appreciates the respondent’s concerns. However, broadband deployment will increase economic development, raise revenues and create jobs. These benefits far outweigh the initial capital expenditures of building this critical infrastructure today.

Comment: One respondent took issue with MEConnect Authority in Maine.

Response: The respondent should contact the appropriate state officials responsible for administering that program. The Rural Utilities Service is not a regulatory agency.

List of Subjects in 7 CFR Part 1738

Broadband, Loan programs—communications, Rural areas, Telephone, Telecommunications.

Accordingly, the interim rule amending 7 CFR part 1738, which was published at 76 FR 13770 on March 14, 2011, is adopted as a final rule with the following change:

See NOFA #1 and NOFA #2.
PART 1738—RURAL BROADBAND ACCESS LOANS AND LOAN GUARANTEES

1. The authority citation for part 1738 continues to read as follows:


2. Amend §1738.153 by revising paragraph (a) and the third sentence of paragraph (b) to read as follows:

§1738.153 Loan terms and conditions.

(a) Unless requested to be shorter by the applicant, broadband loans must be repaid with interest within a period that, rounded to the nearest whole year, is equal to the expected composite economic life of the assets to be financed, as determined by the Agency based upon acceptable depreciation rates. Expected composite economic life means the depreciated life plus three years.

(b) * * * Principal payments will be deferred until two years after the date of the first advance of loan funds.

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