Tribal Broadband: Status of Deployment and Federal Funding Programs

(name redacted)
Specialist in Science and Technology Policy

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Summary

Tribal areas and communities continue to lag behind other areas and segments of American society with respect to broadband and telecommunications services. High poverty rates and low income levels in tribal lands—along with the fact that many tribal communities are located in remote rural areas (often with rugged terrain)—are major factors that may explain why tribal areas have comparatively poor levels of broadband access, and why providers may lack an economic incentive to serve those areas.

Until recently, data on tribal broadband deployment had been scarce. However, the Federal Communications Commission (FCC) and the National Telecommunications and Information Administration (NTIA) have begun to collect and compile data on tribal broadband deployment. The most recent data show that, as of December 31, 2014, approximately 41% of Americans living on tribal lands lacked access to broadband at speeds of 25 Mbps download/3 Mbps upload. This compares unfavorably to 10% of all Americans lacking access to broadband at those speeds. Tribal areas that are the most lacking in broadband service are rural Alaskan villages and rural tribal lands in the lower 48 states.

Because the presence of robust broadband and improved digital connectivity in tribal areas could play a significant role in revitalizing many tribal communities, the federal government continues to provide some financial assistance to tribal lands for broadband deployment. The Government Accountability Office, in its 2016 report, *Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands*, identified programs in two federal agencies that serve as the primary source of funding for deploying broadband infrastructure in tribal lands and communities. These federal agencies are: the FCC and the Rural Utilities Service (RUS) in the U.S. Department of Agriculture.

Tribal entities and projects are eligible for virtually all federal broadband programs. With a few exceptions, however, there are no carve-outs or dedicated funding streams specifically for tribal applicants or non-tribal entities proposing to serve tribal lands. Thus, annual amounts of federal financial assistance vary depending on the number and quality of tribal-related applications received, and the number of tribal-related broadband awards made by the funding agencies.

Debate has centered on whether federal funding for tribal broadband is sufficient, and the extent to which portions of federal funds available for broadband should be specifically targeted for tribal broadband. In the 114th Congress, while there was no legislation that exclusively directed federal funding for tribal broadband, there were a number of bills that addressed federal funding for broadband generally. In the 115th Congress, notwithstanding whether federal broadband funding programs target tribal lands, whether or not tribal lands will receive additional funding for broadband will likely be determined by the ongoing trajectory of overall federal funding for broadband.

Contents

Tables

Contacts

Background

Broadband—whether delivered via fiber, cable modem, copper wire, satellite, or wirelessly—is increasingly the technology underlying telecommunications services such as voice, video, and data.[1] Since the initial deployment of high-speed Internet in the late 1990s, broadband technologies have been deployed primarily by the private sector throughout the United States. While the number of new broadband subscribers continues to grow, studies and data suggest that the rate of broadband deployment in urban/suburban and high-income areas is outpacing deployment in rural and low-income areas.[2] In particular, tribal communities stand out as being among the most unserved or underserved populations with respect to broadband deployment.

According to the Federal Communications Commission (FCC), "[b]y virtually any measure, communities on tribal lands have historically had less access to telecommunications services than any other segment of the population."[3] According to Census data, about 28.3% of Native Americans live in households below the poverty level (compared to 15.5% nationally), and tribal communities often lack basic infrastructure such as water and sewer systems, and telecommunications.[4]

High poverty rates and low income levels in tribal lands—along with the fact that many tribal communities are located in remote rural areas (often with rugged terrain)—are major factors that explain why tribal areas have comparatively poor levels of broadband access, and why providers may lack an economic incentive to serve those areas. According to the FCC's Office of Native Affairs and Policy (ONAP):

> Understanding the complexity of the digital divide in Indian Country requires an appreciation of the unique challenges facing Tribal Nations, which include deployment, adoption, affordability, and access to spectrum, as well as lack of investment dollars and access to credit and start-up or gap financing. Barriers to the deployment of communications services include rural, remote, rugged terrain, areas that are not connected to a road system, and difficulty in obtaining rights-of-way to deploy infrastructure across some Tribal lands—all of which increase the cost of installing, maintaining, and upgrading infrastructure. Affordability of communications services is affected by often endemic levels of poverty. Because Tribal Nations cannot easily collateralize assets that are held in trust by the federal government, and cannot easily access investment dollars, the ability to obtain credit and financing is limited.[5]

[1] The term "broadband" is typically used interchangeably with "high speed Internet" or "advanced telecommunications." Section 706 of the Telecommunications Act of 1996 (P.L. 104-104) defined advanced telecommunications capability as "high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology."

[2] See for example Federal Communications Commission, *2016 Broadband Progress Report*, FCC 16-6, released January 29, 2016, available at https://www.fcc.gov/document/fcc-releases-2016-broadband-progress-report. Also see John B. Horrigan and Maeve Duggan, Pew Research Center, *Home Broadband 2015*, December 21, 2015, available at http://www.pewinternet.org/files/2015/12/Broadband-adoption-full.pdf.

[3] Federal Communications Commission, "In the Matter of Extending Wireless Telecommunications Services to Tribal Lands," *Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 99-266, FCC 00-209, Adopted June 8, 2000, p. 5, available at http://wireless.fcc.gov/auctions/general/releases/fc000209.pdf.

[4] Government Accountability Office, *Additional Coordination and Performance Measurement Needed for High-Speed Internet Access Programs on Tribal Lands*, GAO-16-222, January 2016, p. 5, available at http://www.gao.gov/assets/680/674906.pdf.

[5] Federal Communications Commission, Office of Native Affairs and Policy, *2012 Annual Report*, released March 19, 2013, p.7, available at http://transition.fcc.gov/cgb/onap/ONAP-AnnualReport03-19-2013.pdf.

The presence of robust broadband and improved digital connectivity in tribal areas could play a significant role in revitalizing many tribal communities. The FCC's 2010 National Broadband Plan[6] identified broadband as a basic infrastructure necessary for improving economic growth, job creation, global competitiveness, and a better way of life. According to ONAP, "[t]he lack of robust communications services presents serious impediments to Tribal Nations' efforts to preserve their cultures and build their internal structures for self-governance, economic opportunity, health, education, public safety, and welfare."[7]

Status of Tribal Broadband

Until recently, data on tribal broadband had been scarce. The Government Accountability Office (GAO) noted in 2006 that "[t]he rate of Internet subscribership for Native American households on tribal lands is unknown because neither the Census Bureau nor FCC collects this data at the tribal level."[8]

The FCC and the National Telecommunications and Information Administration (NTIA) have begun to collect and compile data on tribal broadband deployment.[9] The most recent data are available in the FCC's *2016 Broadband Progress Report*, which has data on fixed (non-wireless) broadband availability and adoption in tribal lands.[10] According to the FCC, as of December 31, 2014, approximately 41% of Americans living on tribal lands[11] lacked access to broadband at speeds of 25 Mbps download/3 Mbps upload.[12]This is an improvement over 2013 data (63% without broadband) and 2012 data (68%).[13]

Table 1 shows the numbers and percentages of Americans without fixed broadband service with respect to tribal lands and the United States as a whole. In particular, the data show a significant gap between rural tribal lands (68% of population without broadband) versus urban tribal lands (14% without broadband).

[6] Federal Communications Commission, *Connecting America: The National Broadband Plan*, March 2010, 360 pages, available at https://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf.

[7] FCC, Office of Native Affairs and Policy, *2012 Annual Report*, p. 6.

[8] Government Accountability Office, *Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands*, GAO-06-189, January 2006, p.4, available at http://www.gao.gov/assets/250/248920.pdf.

[9] According to GAO, the Census Bureau began collecting Internet adoption data beginning in 2013. Five years of these data are required to accurately profile areas with small populations. Data will be released in late 2018, and will contain an estimate for Internet adoption in Native American populations. See GAO, *Additional Coordination and Performance Measurement Needed for High-Speed Internet Access Programs on Tribal Lands*, p. 25.

[10] Broadband availability refers to whether or not broadband service is offered, while broadband adoption refers to the extent to which American households actually subscribe to and use broadband.

[11] The FCC assessed census blocks that have been identified by the Census Bureau as federally recognized tribal lands for the 2010 Census. For more information, see *2016 Broadband Progress Report,* pp. 64-65.

[12] FCC, *2016 Broadband Progress Report,* p. 34. In 2015, the FCC raised its minimum broadband benchmark speed from 4 Mbps/1 Mbps to 25 Mbps/3 Mbps. The level at which the minimum broadband threshold speed should be set has been controversial, see CRS Insight IN10438, *Is Broadband Deployment Reasonable and Timely?*, by (name redac ted) .

[13] FCC, *2016 Broadband Progress Report,* p. 39.

Table 1. Americans Without Access to Fixed Broadband

(25 Mbps/3 Mbps)

	Population	Percentage of Population
United States	33,982,000	10%
- Rural Areas	23,430,000	39%
- Urban Areas	10,552,000	4%
Tribal Lands	1,574,000	41%
- Rural Areas	1,291,000	68%
- Urban Areas	283,000	14%

Source: FCC, *2016 Broadband Progress Report*, p. 34.

Table 2 shows broadband availability within the various categories of tribal lands. Areas that are the most lacking in broadband service are rural Alaskan villages and rural tribal lands in the lower 48 states. **Table 3** shows tribal lands without access to fixed broadband by state.

Table 2. Tribal Lands Without Access to Fixed Broadband

(25 Mbps/3 Mbps)

	Population	Percentage of Population
Tribal Lands	1,573,925	41%
- Rural Areas	1,291,330	68%
- Urban Areas	282,595	14%
Alaskan Villages	128,638	49%
- Rural Areas	113,706	70%
- Urban Areas	14,932	15%
Hawaiian Home Lands	367	1%
- Rural Areas	307	7%
- Urban Areas	60	0%
Tribal Lands in the Lower 48 States	588,324	58%
- Rural Areas	469,818	72%
- Urban Areas	118,506	33%
Tribal Statistical Areas	856,596	34%
- Rural Areas	707,499	66%
- Urban Areas	149,097	10%

Source: FCC, 2016 Broadband Progress Report, p. 35.

Table 3. Tribal Lands Without Access to Fixed Broadband by State

(25 Mbps/3 Mbps)

	Population Without Access	% of Population on Tribal Lands
All Tribal Lands	1,573,925	41%
Tribal Lands in the Lower 48 States and an Alaskan Reservation	588,324	58%
Alabama	188	67%
Alaska	1,375	100%
Arizona	162,382	95%
California	29,052	51%
Colorado	11,875	87%
Connecticut	119	36%
Florida	1,762	51%
Idaho	27,666	95%
Iowa	126	13%
Kansas	4,955	100%
Louisiana	725	95%
Maine	1,310	52%
Massachusetts	2	2%
Michigan	4,265	13%
Minnesota	12,047	33%
Mississippi	2,895	38%
Montana	40,944	65%
Nebraska	6,393	85%
Nevada	7,563	72%
New Mexico	108,604	80%
New York	5,472	41%
North Carolina	8,910	99%
North Dakota	19,295	80%
Oklahoma	36,739	42%
Oregon	5,517	64%
South Dakota	19,261	32%
Texas	615	32%
Utah	24,919	78%
Washington	17,104	13%
Wisconsin	13,042	33%
Wyoming	13,202	48%

	Population Without Access	% of Population on Tribal Lands
Tribal Statistical Areas	856,596	34%
California	54	2%
New York	1,168	46%
Oklahoma	855,350	34%
Washington	24	0%
Alaskan Villages	128,638	49%
Hawaiian Home Lands	367	1%

Source: FCC, *2016 Broadband Progress Report*, pp. 72-73.

Finally, **Table 4** shows 2012-2014 fixed broadband adoption rates for tribal lands and the United States as a whole. Broadband adoption in this table reflects the percentage of households that actually subscribe to broadband service offering speeds of at least 25 Mbps/3 Mbps. While broadband adoption in tribal lands has risen significantly since 2012, it should be noted that adoption rates in tribal lands declined by 5% between 2013 and 2014.

Table 4. Fixed Broadband Adoption Rates, 2012-2014

(25 Mbps/3 Mbps)

	2014	2013	2012
United States	37%	29%	11%
- Non-Urban Core Areas	33%	28%	11%
- Urban Core Areas	40%	30%	11%
Tribal Lands	28%	33%	7%
- Non-Urban Core Areas	25%	29%	7%
- Urban Core Areas	33%	36%	7%

Source: FCC, *2016 Broadband Progress Report*, p. 46.

Federal Funding for Tribal Broadband

A precise accounting of federal funding for tribal broadband is problematic. A comprehensive listing of all federal funding programs for broadband is found in the publication, *Guide to Federal Funding of Broadband Projects*, compiled by NTIA.[14] Tribal entities or projects are eligible for virtually all of these programs; but with a few exceptions,[15] there are no carve-outs or dedicated funding streams *specifically* for tribal applicants or non-tribal entities proposing to serve tribal lands. Thus, annual amounts of federal financial assistance vary depending on the number and

[14] U.S. Department of Commerce, National Telecommunications and Information Administration, *BroadbandUSA: Guide to Federal Funding of Broadband Projects*, September 2015, 28 p., available at http://www2.ntia.doc.gov/files/broadband_fed_funding_guide.pdf.

[15] Most notably, the Tribal Mobility Fund, which is part of the FCC's Universal Service/Connect America Fund.

quality of tribal-related applications received, and the number of tribal-related broadband awards made by the funding agencies. Compounding the challenge in assessing federal funding for tribal broadband, some programs may not formally track funding to tribal areas, making it difficult to come up with an accurate overall number from year to year.

The Government Accountability Office, in its 2016 report, *Challenges to Assessing and Improving Telecommunications for Native Americans on Tribal Lands*, identified programs in two federal agencies that serve as the primary source of funding for deploying broadband infrastructure in tribal lands and communities. These federal agencies are the FCC and the Rural Utilities Service (RUS) in the U.S. Department of Agriculture.

FCC

The FCC has established a Universal Service Fund (USF) which provides financial support to ensure that telecommunications services are available to all Americans.[16] The USF currently administers four programs: the High Cost/Connect America Fund Program; the Schools and Libraries Program; the Rural Health Care Program/Health Connect Fund; and the Low Income Program.[17] In its report, GAO identified three of those programs as subsidizing telecommunications carriers providing broadband to areas that include tribal lands. Additionally, on March 31, 2016, the FCC adopted an Order that modernizes the Lifeline Program and reorients its focus on broadband services.[18]

High Cost/Connect America Fund Program

The High Cost Fund Program, which is transitioning into the Connect America Fund (CAF), provides subsidies to telecommunications providers offering broadband in rural areas. According to GAO, "the High Cost and Connect America Fund distributed about $20 billion in subsidies to providers between 2010 and 2014, portions of which went to providers that serve tribal lands."[19] Of the total, GAO was unable to determine the amount of funding that went to tribal lands.

As part of the CAF, the FCC established a Mobility Fund which consists of two phases. Phase I of the Mobility Fund ($300 million) includes $50 million for a Tribal Mobility Fund to extend wireless voice and broadband infrastructure into tribal lands. On February 28, 2014, the FCC announced completion of the Tribal Mobility Fund Phase I auction, with five wireless providers becoming eligible to receive a total of up to approximately $50 million in one-time support. Since July 2014, $16.6 million in initial disbursements have been made.[20] As yet unscheduled, Phase II of the Mobility Fund ($500 million per year) will designate $100 million per year for Phase II of the Tribal Mobility Fund.

[16] For more information on the USF, see CRS Report RL30719, *Broadband Internet Access and the Digital Divide: Federal Assistance Programs*, by (name redacted) and (name redacted) .

[17] The Low Income Program (which includes the Lifeline and Link-Up programs) has traditionally subsidized telephone service for low-income residents, including those in tribal lands. For more information, see CRS Report R44487, *Federal Lifeline Program: Frequently Asked Questions*, by (name redacted) .

[18] FCC, "In the Matter of Lifeline and Link Up Reform and Modernization," *Third Report and Order, Further Report and Order, and Order on Reconsideration*, WC Docket No. 11-42, FCC 16-38, adopted March 31, 2016, released April 27, 2016, 224 p., available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0427/FCC-16-38A1.pdf.

[19] GAO, *Additional Coordination and Performance Measurement Needed for High-Speed Internet Access Programs on Tribal Lands*, p. 17.

[20] FCC, *2016 Broadband Progress Report*, p. 55.

On March 30, 2016, the FCC approved modernization and reform of its universal service program supporting the nation's small rural carriers, known as "rate-of-return" carriers.[21] As part of this action, the FCC sought public comment on a proposal advanced by the National Tribal Telecommunications Association (NTTA) that would implement a Tribal Broadband Factor (TBF) when calculating the amount of support available to small rural telecommunications carriers. Under the proposal, rate-of-return carriers serving tribal lands would be eligible to receive a TBF of 1.25 times the support other carriers would receive.[22]

Schools and Libraries (E-Rate) Program

The E-rate Program subsidizes discounts to providers offering telecommunications services, Internet access, and internal connections to schools and libraries. According to the GAO report, "the E-rate program provided about $13 billion in discounts to schools and libraries between 2010 and 2014, portions of which went to schools and libraries on tribal lands."[23] Of that total, "at least $1 billion of that amount supports tribal institutions."[24]

Lifeline Program

The Lifeline Program provides a subsidy to providers serving low-income households, thereby eliminating or significantly reducing the monthly cost to low-income households for telecommunications service. While traditionally geared towards subsidizing telephone service, a March 31, 2016, FCC Order transitions Lifeline towards subsidizing broadband service. While low-income non-tribal households are eligible for a $9.25 per month subsidy, low-income households in tribal areas are eligible for a subsidy of $34.25 per month plus a one-time initiation of service discount of up to $100 for Link Up support.

Rural Health Care Program/Healthcare Connect Fund

The Rural Health Care Support Mechanism provides discounts to rural care providers for broadband connectivity. According to GAO, "[a]lthough the Healthcare Connect Fund does not specifically target tribal institutions, assistance may be provided to a service provider (or group of providers) that serve tribal lands."[25] The Healthcare Connect Fund provided $52 million in 2014, "a portion of which went to tribal lands."[26]

RUS Broadband Funding Programs

The Rural Utilities Service of the U.S. Department of Agriculture maintains a portfolio of telecommunications programs to finance broadband deployment and infrastructure in rural areas.[27] This portfolio consists of over $6.7 billion in telecommunications investments, which

[21] FCC, "In the Matter of Connect America Fund," *Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking*, WC Docket No. 10-90, FCC 16-33, adopted March 23, 2016, released March 30, 2016, 249 p., available at http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0330/FCC-16-33A1.pdf.

[22] Ibid., pp. 138-142.

[23] GAO, *Additional Coordination and Performance Measurement Needed for High-Speed Internet Access Programs on Tribal Lands*, p. 17.

[24] Ibid., p. 27.

[25] Ibid., p. 17.

[26] Ibid.

[27] See CRS Report RL33816, *Broadband Loan and Grant Programs in the USDA's Rural Utilities Service*, by Lennard (continued...)

includes grant programs as well as $4.3 billion in telecommunications loans. According to RUS, "since 2009, RUS Telecommunications programs have invested over $157 million in projects serving Tribal Lands, Tribal Organizations, American Indians, and Alaska Natives."[28]

RUS broadband programs include the Community Connect Grant Program, the Distance Learning and Telemedicine Grant Program, the Rural Broadband Access Loan and Loan Guarantee Program, and the Telecommunications Infrastructure Loan and Loan Guarantee Program.

Community Connect Grant Program

The Community Connect Program[29] provides grant money to applicants proposing to provide broadband on a "community-oriented connectivity" basis to currently unserved rural areas. Federally-recognized tribes are eligible to apply for Community Connect grants. According to RUS, Community Connect has provided a total of $77.4 million in grants since 2009. Of that amount, the program "has provided nearly $14 million to assist tribal communities lacking access to high-speed Internet."[30]

Distance Learning and Telemedicine Program

Distance Learning and Telemedicine (DLT) grants[31] serve as initial capital assets for equipment (e.g., video conferencing equipment, computers) that operate via telecommunications to rural end-users of telemedicine and distance learning. Federally-recognized tribes are eligible to apply for DLT grants. According to RUS, since 2009, DLT "has financed nearly $43 million in equipment to expand access to education and health care services in tribal areas."[32]

Rural Broadband Access Loan and Loan Guarantee Program

The Rural Broadband Access Loan and Loan Guarantee Program (also known as the Farm Bill Broadband Loan and Loan Guarantee Program)[33] provides loans and loan guarantees for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide broadband service in eligible rural areas. Indian tribes or tribal organizations are eligible to apply. According to RUS, since 2009, "nearly $10 million" has been used to increase tribal connectivity.[34]

Telecommunications Infrastructure Loans and Loan Guarantee Program

The Telecommunications Infrastructure Loan and Loan Guarantee Program[35] provides loans and loan guarantees for the construction, maintenance, improvement and expansion of telephone

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[28] Testimony of RUS Administrator Brandon McBride before the Senate Committee on Indian Affairs, April 27, 2016, p. 2, available at http://www.indian.senate.gov/sites/default/files/4.27.16%20Brandon%20McBride%20Testimony.pdf.

[29] For more information, see http://www.rd.usda.gov/programs-services/community-connect-grants.

[30] Testimony of RUS Administrator Brandon McBride, p. 3.

[31] For more information, see http://www.rd.usda.gov/programs-services/distance-learning-telemedicine-grants.

[32] Testimony of RUS Administrator Brandon McBride, p. 3.

[33] For more information, see http://www.rd.usda.gov/programs-services/farm-bill-broadband-loans-loan-guarantees.

[34] Testimony of RUS Administrator Brandon McBride, p. 3.

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

service and broadband in rural areas. The program was first authorized in 1949 to finance rural telephone service. Since 1995, RUS has required that networks funded by this program offer broadband service as well. Federally recognized tribes are eligible for these loans and loan guarantees. According to RUS, since 2009, "telecommunications infrastructure funding totaling over $91 million has assisted tribal areas."[36]

Substantially Underserved Trust Areas (SUTA)

The 2008 Farm Bill directed USDA to establish an initiative to identify and improve the availability of loan programs for communities in substantially underserved trust areas.[37] Section 6105 of the Food, Conservation, and Energy Act of 2008 (P.L. 110-234) authorized RUS to make loans and guarantee loans with interest rates as low as 2% and with extended repayment terms; may waive non-duplication restrictions,[38] matching fund requirements, or credit support requirements[39] to facilitate construction, acquisition or improvements of infrastructure; and give highest priority to designated projects in substantially underserved trust areas. The Final Rule, developed in consultation with tribal communities and governments, was released on June 13, 2012 (7 C.F.R. 1700 Subpart D). The SUTA rules apply to the Rural Broadband Access Loan and Loan Guarantee Program and the broadband loan and the Telecommunications Infrastructure Loan and Loan Guarantee Program; the rule does not apply to the Community Connect Grant Program or the Distance Learning and Telemedicine Grant Program.

Stimulus Broadband Grants and Loans

Broadband provisions of the American Recovery and Reinvestment Act (ARRA, P.L. 111-5) provided a total of $6.9 billion for broadband grants, loans, and loan/grant combinations. The total consisted of $4.4 billion to NTIA/DOC for a newly established Broadband Technology Opportunities Program (BTOP grants) and $2.5 billion to the RUS/USDA Broadband Initiatives Program (BIP grants, loans, and grant/loan combinations).[40] In 2009 and 2010, NTIA awarded funding for 233 projects and RUS awarded funding for 297 broadband infrastructure projects.[41] Virtually all projects are now completed and closed; no new funding is available.

While there was no set-aside for tribal broadband, a number of ARRA broadband awards were made to tribal entities or providers serving tribal lands. According to RUS, awarded BIP projects overlapped with 31 tribal lands, and nine awards were made to Indian Tribes.[42] According to NTIA, six tribal authorities received BTOP grants and at least 65 BTOP projects will directly benefit tribal communities.[43]

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[36] Testimony of RUS Administrator Brandon McBride, p. 3.

[37] For more information, see http://www.rd.usda.gov/about-rd/initiatives/substantially-underserved-trust-area-suta.

[38] Non-duplication generally means a restriction on financing projects for services in a geographic area where reasonably adequate service already exists as defined by the applicable program.

[39] Credit support means equity, cash requirements, letters of credit, and other financial commitments provided in support of a loan or loan guarantee.

[40] For information on existing broadband programs at RUS, see CRS Report RL33816, *Broadband Loan and Grant Programs in the USDA's Rural Utilities Service*, by (name redacted) .

[41] A small portion of these project awards were ultimately rescinded; see ibid. pp. 5-6.

[42] U.S. Department of Agriculture, Broadband Initiatives Program, Awards Report, *Advancing Broadband: A Foundation for Strong Rural Communities*, January 2011, p. 3, available at http://www.rd.usda.gov/files/reports/RBBreportV5ForWeb.pdf.

[43] Department of Commerce, National Telecommunications and Information Administration, *The Broadband*
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Other Federal Funding Programs

Aside from the programs listed above, the NTIA report, *Guide to Federal Funding of Broadband Projects*, cites several other federal funding programs as relevant to tribal broadband.

The Department of Housing and Urban Development (HUD) contains an Office of Native American Programs (ONAP). According to NTIA, ONAP has three programs that could potentially be used to fund broadband projects:

- Indian Community Development Block Grant (ICDBG)—"Awarded under an annual competition, ICDBG provides funds to eligible grantees for housing rehabilitation, land acquisition, community facilities, infrastructure construction, and economic development activities that benefit primarily low and moderate income persons."[44] As an example, in 2005 the Coquille Tribe of Oregon received an ICDBG grant of $421,354 for broadband infrastructure deployment.[45]
- Indian Housing Block Grant (IHBG)—"Eligible activities include housing development, assistance to housing developed under the Indian Housing Program, housing services to eligible families and individuals, crime prevention and safety, and model activities that provide creative approaches to solving affordable housing problems."[46] There is also a Native Hawaiian Housing Block Grant program.
- Tribal Housing Activities Loan Guarantee Program (Title VI)—the program "assists IHBG recipients (borrower) who want to finance eligible affordable housing activities, but are unable to secure financing without the assistance of a federal guarantee."[47]

Another broadband-related source of funding specifically targeted to Native Americans is the Native American and Native Hawaiian Library Services Grant programs at the Office of Library Services, Institute of Museum and Library Services. Programs include Native American Library Services Basic Grants, Native American Library Services Enhancement Grants, and Native Hawaiian Library Services Grants.[48]

Broadband Opportunity Council Recommendations

On September 21, 2015, the Administration released the *Broadband Opportunity Council Report and Recommendations*.[49] The interagency Broadband Opportunity Council (BOC) was created by

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Technology Opportunities Program: Expanding Broadband Access and Adoption in Communities Across America, Overview of Grant Awards, December 14, 2010, p. 16, available at http://www.ntia.doc.gov/reports/2010/NTIA_Report_on_BTOP_12142010.pdf.

[44] *BroadbandUSA: Guide to Federal Funding of Broadband Project*, p. 17.

[45] Ibid., p. 18.

[46] Ibid., p. 17.

[47] Ibid., p. 18.

[48] Ibid., pp. 21-22.

[49] Department of Commerce and Department of Agriculture, *Broadband Opportunity Council Report and Recommendations*, August 20, 2015, available at https://www.ntia.doc.gov/files/ntia/publications/broadband_opportunity_council_report_final.pdf. For a summary of the BOC report, see CRS Insight IN10367, *Broadband Opportunity Council Report and Recommendations*, by (name redacted) .

the March 23, 2015, Presidential Memorandum, "Expanding Broadband Deployment and Adoption by Addressing Regulatory Barriers and Encouraging Investment and Training." Specifically, the Council was tasked to produce recommendations to increase broadband deployment, competition, and adoption through executive actions within the scope of existing federal agency programs, missions, and budgets without additional appropriated funding.

BOC recommendations encompass such measures as making broadband projects eligible for funding from other existing federal grant and loan programs; modifying agency rules and regulations in order to maximize broadband-related uses of federal assets such as highways and federal lands; upgrading public dissemination of broadband information, data, and best-practices; and researching new broadband technologies and applications.

One of the recommendations is to "Address Broadband Challenges on Tribal Lands." As part of this recommendation and others, the BOC reported the following action items:

- **Action Item:** The Department of the Interior (DOI) will convene a Native American Broadband Summit to review the current status of broadband in tribal lands and discuss approaches to improve broadband access and adoption. Other federal agencies and tribes will participate, and a report will be developed to include intended next steps.[50]
- **Status:** A planning team made up of DOI, USDA, NTIA, FirstNet, and the FCC developed an agenda and outreach plan and identified potential participants for a Summit. While originally intended to be held in the fourth quarter of FY2016, budget constraints delayed the initial target date for the Summit and agencies are looking to convene during the early part of 2017.[51]
- **Action Item:** The DOI Bureau of Indian Education (BIE) will work with the White House Council on Native American Affairs, other federal agencies and the Educational Native American Network (ENAN) to increase broadband connectivity and educational support at schools throughout Indian Country. This action will leverage resources and programs such as ConnectED, BroadbandUSA, RUS Telecommunications and Distance Learning Grants, and new E-rate regulations to develop and implement a plan to increase connectivity at tribal schools. All actions will be implemented through ENAN, which provides standards-based connectivity, security, content delivery, web services, distance learning, email access, education application access and other information services to BIE schools.[52]
- **Status:** The Administration's FY2017 budget proposed investments in education information IT to enhance broadband and digital access for students at BIE-funded schools.[53] Additionally, the White House Council on Native American Affairs (WHCNAA), which is based out of DOI, coordinated with OMB over the

[50] *Broadband Opportunity Council Report and Recommendations*, p. 20.

[51] Private communication with NTIA, December 9, 2016.

[52] *Broadband Opportunity Council Report and Recommendations*, pp. 20-21.

[53] In the FY2017 budget submission, BIE requested $25 million to address the lack of bandwidth and infrastructure in BIE-funded schools. According to the DOI *Budget Justification* (see p. IA-BIE-28, available at https://www.doi.gov/sites/doi.gov/files/uploads/FY2017_IA_Budget_Justification.pdf), funding will be used to procure necessary network hardware components to support 21st Century instruction and to administer online assessments; increase bandwidth in schools in concert with funding from other sources (such as the E-rate program); and provide the resources and training that staff need to delivery digital instruction and online assessments effectively and efficiently.

past year to lead an inter-agency initiative on creating metrics focused on Native youth.[54] One of the focus areas for the metrics was "Increasing Access to the Internet." This effort involved DOI, USDA, and HUD. One notable deliverable from this initiative was that for low-income rental units of the Choctaw Nation with school-aged children (K-12), HUD and USDA connected 83 HUD-funded rental units to high-speed Internet. Also, as a part of this initiative, DOI/BIA is striving to upgrade a number of BIE schools to the modified State Education Technology Director Association (SETDA) standard of 10Mpbs. The goal is to complete 67 schools in FY2016 and 66 schools in FY2017 for a total of 133 schools.

Meanwhile, as part of ConnectED, an initiative designed to connect schools and libraries to the digital age, the FCC's E-rate program provided broadband, WiFi, and telecommunications funding to 245 tribal schools serving over 60,000 students and 31 tribal libraries during the last funding year. Additionally, NTIA published a planning toolkit[55] for tribal governments to develop a Community Broadband Roadmap for building broadband networks, enhancing public computer centers, expanding broadband to unserved areas, encouraging public-private partnerships, and promoting broadband connectivity to homes, businesses, and institutions.[56]

- **Action Item:** As part of an effort to expand technology-based job training in tribal communities, the Department of Labor and the Institute for Museum and Library Services will provide information to Indian and Native American Program grantees on the Distance Learning and Telemedicine and Community Connect grant programs within the RUS.[57]
- **Status:** The Employment and Training Administration will post information on RUS, DLT and Community Connect grant programs on two websites for the Indian and Native American Program grantees in December 2016. The descriptions will be posted on the official website (www.doleta.gov/dinap) as well as on the Community of Practice website (https://ina.workforcegps.org/).[58]
- **Action Item:** As part of an effort to expand utilization of telecommunications towers on tribal and rural lands, DOI will develop an initiative to leverage over 4,000 towers and other assets on DOI-managed property to support broadband deployments. The initiative will seek public-private partnerships to "make ready" or upgrade towers in exchange for discounted tower leases, consistent with statutory requirements. This effort could reduce barriers to entry, increase competition, and improve service over 500 million square acres of land in unserved and underserved communities. NTIA will assist DOI in this effort.[59]

[54] See https://www.whitehouse.gov/blog/2016/09/26/usingevidence-guide-better-serve-native-youth

[55] NTIA, BroadbandUSA, *Planning a Community Broadband Roadmap: A Toolkit for Local and Tribal Governments*, April 2016, available at http://www2.ntia.doc.gov/files/ntia_planning_community_broadband_roadmap_051616.pdf.

[56] Private communication with NTIA, December 9, 2016.

[57] *Broadband Opportunity Council Report and Recommendations*, p. 22.

[58] Private communication with NTIA, December 9, 2016.

[59] *Broadband Opportunity Council Report and Recommendation*, p. 24.

- **Status:** DOI is expanding its current leasing posture at the Bureau level, predominantly with the Bureau of Land Management (BLM), and is seeking partner engagement through its Radio Executive Steering Committee.[60]
- **Action Item:** HUD's Office of Native American Programs (ONAP) will issue guidance to Indian Community Development Block Grant (ICDBG) recipients that broadband is an eligible infrastructure expense. Tribes and certain tribal organizations are eligible to apply for funds.[61]
- **Status:** On February 24, 2016, the Office of Native American Programs (ONAP) issued program guidance[62] to clarify broadband eligibility in the ICDBG Program.[63]

Legislation in the 114th Congress

Several bills were introduced into the 114th Congress that sought to address tribal broadband:

- H.R. 5054, the FY2017 Agriculture Appropriations bill, would have provided $33 million to the Community Connect Grant Program and $25 million to the Distance Learning and Telemedicine Program. The House Appropriations Committee report (H.Rept. 114-531) includes the following:

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

- On April 27, 2016, an amendment to S. 2644 (the FCC Authorization Act of 2016) offered by Senator Cantwell and adopted by the Senate Committee on Commerce, Science, and Transportation, would have directed the FCC to develop metrics to measure the impact of universal service support on tribal lands and would require the FCC to prepare a biennial report to Congress on the impact of universal service support on tribes and tribal lands. S. 2644 was reported by the Senate Committee on Commerce, Science, and Transportation on September 20, 2016 (S.Rept. 114-355) but was not enacted by the 114th Congress.

Meanwhile, on April 27, 2016, the Senate Committee on Indian Affairs held an oversight hearing on the GAO report, *Telecommunications: Additional Coordination and Performance Measurement Needed for High-Speed Internet Access Programs on Tribal Lands*. Testimony was heard from the RUS, FCC, GAO, and private witnesses.[64]

[60] Private communication with NTIA, December 9, 2016.

[61] *Broadband Opportunity Council Report and Recommendation,* p. 15.

[62] See http://portal.hud.gov/hudportal/documents/huddoc?id=BroadbandGuidance.pdf.

[63] Private communication with NTIA, December 9, 2016.

[64] Testimony is available at http://www.indian.senate.gov/hearing/oversight-hearing-gao-report-telecommunications-additional-coordination-and-performance.

Concluding Observations

With respect to broadband and telecommunications access and adoption, tribal areas and communities continue to lag behind other areas and segments of American society. Many contend that without federal assistance, tribal lands will continue to be on the wrong side of the digital divide. At issue is what role the federal government can play to most effectively and efficiently support broadband deployment on tribal lands.

Aside from providing funding for broadband deployment, other approaches are available to the federal government for supporting tribal broadband. These include mechanisms for effective coordination and consultation with tribes on broadband issues;[65] spectrum policies to promote wireless broadband deployment on tribal lands,[66] addressing permitting and environmental review issues for deploying broadband infrastructure on tribal lands,[67] and rights-of-way policies to enable broadband infrastructure deployment on public lands.[68]

Regarding funding, debate has centered on whether federal funding for tribal broadband is sufficient, and the extent to which portions of federal funds available for broadband generally should be specifically targeted for tribal broadband. The 2010 National Broadband Plan (NBP) found that "[t]ribes need substantially greater financial support than is presently available to them, and accelerating tribal broadband deployment will require increased funding."[69] The NBP recommended that Congress establish a Tribal Broadband Fund, which would be administered by NTIA in consultation with the FCC and the Bureau of Indian Affairs. To date, no legislation has been introduced in Congress that would establish a Tribal Broadband Fund.[70]

Currently, the largest overall source of federal funding for telecommunications services is the FCC's Universal Service Fund programs. As these programs transition towards a broadband-centric orientation (e.g., the Connect America Fund), the issue for tribal broadband is how this transition will affect broadband funding to tribal lands, and to what extent these programs might be configured towards addressing the relatively low levels of broadband deployment and adoption

[65] The FCC's Office of Native Affairs and Policy (ONAP) was established in 2010 and was charged with "ensuring robust government-to-government consultation with Federally-recognized tribal governments and other native organizations; working with Commissioners, Bureaus, and Offices, as well as with other government agencies and private organizations, to develop and implement policies for assisting native communities; and ensuring that Native concerns and voices are considered in all relevant Commission proceedings and initiatives." FCC, *In the Matter of Establishment of the Office of Native Affairs and Policy in the Consumer and Governmental Affairs Bureau*, Order, FCC 10-141, released August 12, 2010, p. 1, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-10-141A1.pdf. Subsequently in 2011, the FCC-Native Nations Broadband Task Force was established, see https://apps.fcc.gov/edocs_public/attachmatch/DA-14-1558A1.pdf.

[66] See, for example, FCC Tribal Lands Bidding Credit Program, http://wireless.fcc.gov/auctions/default.htm?job=tribal_bidding&page=1.

[67] See, for example, Broadband Deployment on Federal Property Working Group, *Implementing Executive Order 13616: Progress on Accelerating Broadband Infrastructure Deployment*, A Progress Report to the Steering Committee on Federal Infrastructure Permitting and Review Process Improvement, August 2013, pp. 12-14, available at https://www.whitehouse.gov/sites/default/files/microsites/ostp/broadband_eo_implementation.pdf.

[68] See FCC, "In the Matter of Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting," Notice of Inquiry, WC Docket No. 11-59, FCC 11-51, April 7, 2011. Also see FCC, "In the Matter of Acceleration of Broadband Deployment by Improving Wireless Facilities Siting Policies," *Report and Order*, FCC 14-153, October 21, 2014.

[69] *Connecting America: The National Broadband Plan*, p. 152.

[70] Ibid.

in tribal lands.[71] In the 114th Congress, while there was no legislation that exclusively directed federal funding for tribal broadband, there were a number of bills that sought to address federal funding for broadband generally.[72] In the 115th Congress, notwithstanding whether federal broadband funding programs target tribal lands, whether or not tribal lands will receive additional funding for broadband will likely be determined by the ongoing trajectory of overall federal funding for broadband.

Author Contact Information

(name redacted)
Specialist in Science and Technology Policy
[redacted]@crs.loc.gov, 7-....

[71] See, for example, the proposal of the National Tribal Telecommunications Association for a "Tribal Broadband Factor" as part of USF reform. National Tribal Telecommunications Association, Ex Parte Communication to the FCC, *In the Matter of Connect America Fund, WC Docket No. 10-90; NTTA Proposal for a Tribal Broadband Factor*, June 19, 2015, available at https://prodnet.www.neca.org/publicationsdocs/wwpdf/62215ntta.pdf. There is also concern that parts of the CAF transition could reduce tribal broadband funding; see NTTA Ex Parte comments filed on February 23, 2016, available at http://apps.fcc.gov/ecfs/document/view?id=60001516284.

[72] See CRS Report RL30719, *Broadband Internet Access and the Digital Divide: Federal Assistance Programs*, by (name redacted) and (name redacted) .