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Tribal Broadband: Status of Deployment and Federal Funding Programs

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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 Department of Commerce have begun to collect and compile data on tribal broadband deployment. The most recent data show that, as of December 31, 2016, approximately 35% of Americans living on tribal lands lacked access to broadband at speeds of 25 Mbps download/3 Mbps upload. This compares unfavorably to about 8% 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 in tribal areas 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 nontribal 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 subsequently 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 115th Congress, bills have been introduced to direct federal funding specifically for tribal broadband. 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.

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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]

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

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 Department of Commerce (Census and the National Telecommunications and Information Administration) have begun to collect and compile data on tribal broadband deployment.[9] The most recent data are available in the FCC's *2018 Broadband Deployment Report*, which has data on broadband availability and adoption in tribal lands.[10] According to the FCC, as of December 31, 2016, approximately 35.4% of Americans living on tribal lands lacked access to terrestrial fixed broadband at speeds of 25 Mbps download/3 Mbps upload. This is an improvement over 2014 data (42.8% without broadband) and 2012 data (67.8%).[11]

Table 1 shows the numbers and percentages of Americans with access to fixed terrestrial broadband service with respect to tribal lands and the United States as a whole. In particular, the data show a significant gap between tribal lands (35.4% of population without broadband) versus nationwide (7.7% without broadband).

2013, p.7, available at http://transition.fcc.gov/cgb/onap/ONAP-AnnualReport03-19-2013.pdf.

[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] *2018 Broadband Deployment Report*, p. 22.

Table 1. Percentage of Americans with Access to Fixed Terrestrial Broadband at Minimum Speed of 25 Mbps/3 Mbps

	2012	2013	2014	2015	2016
United States	81.2%	83.6%	89.4%	89.6%	92.3%
Rural Areas	45.7%	47.6%	60.4%	60.7%	69.3%
Urban Areas	89.7%	92.3%	96.4%	96.5%	97.9%
Tribal Lands	32.2%	37.1%	57.2%	57.8%	64.6%

Source: FCC, *2018 Broadband Deployment Report*, p. 22.

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 terrestrial broadband by state.

Table 2. Percentage of Population on Tribal Lands With Access to Fixed Terrestrial 25 Mbps/3Mbps Services and Mobile LTE with a Speed of 5 Mbps/1Mbps

	2012	2013	2014	2015	2016
All Tribal Lands	28.8%	35.5%	56.2%	57.0%	63.9%
- Rural Areas	7.2%	14.1%	29.5%	30.1%	40.9%
- Urban Areas	51.5%	57.9%	84.5%	85.6%	88.5%
Alaskan Villages	0.1%	28.2%	44.4%	42.7%	51.5%
- Rural Areas	0.1%	13.1%	25.8%	23.7%	36.2%
- Urban Areas	0.1%	54.9%	77.4%	76.7%	79.0%
Hawaiian Home Lands	89.8%	90.6%	96.9%	88.9%	88.6%
- Rural Areas	50.9%	45.0%	83.0%	43.9%	43.5%
- Urban Areas	96.9%	99.4%	99.8%	98.0%	98.0%
Lower 48 States	19.9%	30.0%	38.8%	41.5%	44.6%
- Rural Areas	8.1%	18.9%	25.8%	28.4%	31.6%
- Urban Areas	43.0%	51.9%	64.8%	67.8%	71.2%
Tribal Statistical Areas	34.6%	37.8%	64.2%	64.5%	73.0%
- Rural Areas	7.4%	11.2%	32.1%	32.0%	47.6%
- Urban Areas	56.1%	58.8%	89.7%	90.3%	93.3%

Source: FCC, *2018 Broadband Deployment Report*, p. 28.

Table 3. Americans Living on Tribal Lands With Access to Fixed Terrestrial 25 Mbps/3Mbps Services by State

(as of December 31, 2016)

	Total Population	Population with Access	Percentage of Population with Access
Tribal Lands	3,991,141	2,578,205	64.6%
Alaskan Villages	261,818	145,035	55.4%
Hawaiian Homelands	33,409	29,612	88.6%
Lower 48 States	1,103,942	510,490	46.2%
Alabama	283	88	31.1%
Alaska	1,452	0	0%
Arizona	197,979	16,203	8.2%
California	69,976	36,447	52.1%
Colorado	16,132	1,900	11.8%
Connecticut	354	351	99.2%
Florida	4,768	3,301	69.2%
Idaho	32,955	5,599	17.0%
Iowa	992	349	35.2%
Kansas	5,692	541	9.5%
Louisiana	768	96	12.5%
Maine	2,364	1,627	68.8%
Massachusetts	75	73	97.3%
Michigan	34,970	29,269	83.7%
Minnesota	38,884	29,428	75.7%
Mississippi	7,179	4,467	62.2%
Montana	69,268	33,959	49.0%
Nebraska	8,643	1,653	19.1%
Nevada	13,666	5,771	42.2%
New Mexico	142,167	34,037	23.9%
New York	13,607	7,968	58.6%
North Carolina	9,178	215	2.3%
North Dakota	25,195	20,049	79.6%
Oklahoma	91,616	53,307	58.2%
Oregon	9,297	3,246	34.9%
Rhode Island	3	1	33.3%
South Carolina	977	977	100%
South Dakota	64,913	34,483	53.1%
Texas	1,866	1,395	74.8%

	Total Population	Population with Access	Percentage of Population with Access
Utah	36,183	14,961	41.3%
Washington	136,549	127,443	93.3%
Wisconsin	39,634	27,685	69.9%
Wyoming	26,357	13,601	51.6%
Tribal Statistical Areas	2,591,972	1,893,068	73.0%
California	3,177	3,166	99.7%
New York	2,711	1,375	50.7%
Oklahoma	2,547,261	1,847,705	72.6%
Washington	38,823	38,822	100%

Source: FCC, *2018 Broadband Deployment Report*, pp. 77-78.

Table 4 shows 2012-2016 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 between 2013 and 2014.

Table 4. Overall Broadband Adoption Rate for Fixed Terrestrial Services, 2012-2016

(25 Mbps/3 Mbps)

	2012	2013	2014	2015	2016
United States	11.1%	29.7%	38.2%	48.3%	53.3%
- Non-Urban Core Areas	11.4%	28.5%	34.0%	43.5%	48.5%
- Urban Core Areas	11.0%	30.4%	41.0%	51.5%	56.9%
Tribal Lands	6.5%	31.9%	28.5%	31.7%	32.6%
- Non-Urban Core Areas	6.7%	36.6%	33.9%	37.1%	39.4%
- Urban Core Areas	6.4%	27.8%	25.3%	28.5%	29.2%

Source: FCC, *2018 Broadband Deployment Report*, p. 40.

Finally, **Table 5** shows that Native Americans have a lower rate of internet usage than other races and ethnicities.

Table 5. Internet Use by Race or Ethnicity

(percentage of age 3+ civilian persons)

	Total U.S.	White	African American	Hispanic	American Indian or Alaska Native
Internet Use (any location)	77.7%	80.2%	73.4%	72.1%	62.7%
Internet Use at Home	71.9%	75.2%	65.3%	64.5%	51.5%

Source: Digital Nation Data Explorer, National Telecommunications and Information Administration, November 2017 data.

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 the National Telecommunications and Information Administration (NTIA).[12] Tribal entities or projects are eligible for virtually all of these programs, but with a few exceptions,[13] there are no carve-outs or dedicated funding streams *specifically* for tribal applicants or nontribal 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. 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.[14] The USF currently administers four programs: the High Cost/Connect America Fund Program; the Schools and Libraries Program (E-Rate); the Rural Health Care Program/Health Connect Fund; and the Low

[12] U.S. Department of Commerce, National Telecommunications and Information Administration, *BroadbandUSA: Guide to Federal Funding of Broadband Projects*, June 2017, 44 p., available at https://broadbandusa.ntia.doc.gov/sites/default/files/resource-files/ntia_guidetofedfunding_062317.pdf. Additionally, an online search tool is available at https://broadbandusa.ntia.doc.gov/funding-list.

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

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

Income Program (Lifeline and Link-up).[15] 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 modernized the Lifeline Program and reoriented its focus on broadband services.[16]

On February 8, 2018, the FCC, through its Office of Native Affairs and Policy (ONAP), announced it was seeking applications for membership on a renewed FCC Native Nations Communications Task Force. The renewed Task Force's mission will be to make recommendations to the FCC on communications-related issues that affect tribal interests. The issues to be considered by the Task Force "may include, but are not limited to: (i) executing the Commission's Tribal Consultation policy; (ii) identifying barriers to broadband deployment that are unique to Tribal lands; (iii) ensuring Tribal concerns are considered in all Commission proceedings related to broadband and other Commission undertakings that affect Tribal interests regarding communications services and facilities."[17]

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."[18] 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) included $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.[19] Phase II of the Mobility Fund ($453 million per year for 10 years) will designate up to an estimated $34 million of annual support for deploying wireless mobile broadband service on eligible tribal lands.[20]

On March 27, 2018, the FCC adopted a *Report and Order* that will "increase the amount of operating costs that carriers that predominantly serve Tribal lands can recover from the universal service fund (USF) in recognition that they are likely to have higher costs than carriers not

[15] 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 Angele A. Gilroy.

[16] 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 pages., available at https://docs.fcc.gov/public/attachments/FCC-16-38A1.pdf.

[17] FCC, *Public Notice*, "FCC Seeks Nominations for Tribal Government Representatives to Serve on Renewed FCC Native Nations Communications Task Force," February 8, 2018, available at https://apps.fcc.gov/edocs_public/attachmatch/DA-18-127A1.pdf.

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

[19] Federal Communications Commission, *2016 Broadband Progress Report*, FCC 16-6, released January 29, 2016, p. 55, available at https://www.fcc.gov/document/fcc-releases-2016-broadband-progress-report.

[20] FCC, "In the Matter of Connect America Fund Universal Service Reform—Mobility Fund," *Report and Order and Further Notice of Proposed Rulemaking*, WC Docket No. 10-90, FCC 17-11, adopted February 23, 2017, released March 7, 2017, pp. 13-17, available at https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-11A1.pdf.

serving Tribal lands. This action will provide additional funding to these carriers to provide both voice and broadband services to their customers."[21]

Also, on March 14, 2018, the FCC adopted a *Notice of Proposed Rulemaking* asking for comment on its proposal to incorporate a Tribal Broadband Factor into the CAF model.[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 toward subsidizing telephone service, a March 31, 2016, FCC Order transitions Lifeline toward subsidizing broadband service. While low-income nontribal 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.

On November 16, 2017, the FCC adopted an Order[25] "limiting enhanced Tribal Lifeline support—$25 monthly in addition to the standard $9.25 per household—to facilities-based providers," and "limiting enhanced Tribal support to rural areas and eliminating enhanced support in urban areas, where the additional $25 a month is not required to make service affordable or to promote deployment."[26]

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

[21] FCC, "In the Matter of Connect America Fund," *Report and Order*, WC Docket No. 10-90, FCC 18-37, adopted March 27, 2018, released April 5, 2018, 19 pages, available at https://transition.fcc.gov/Daily_Releases/Daily_Business/2018/db0405/FCC-18-37A1.pdf.

[22] FCC, "In the Matter of Connect America Fund," *Report and Order, Third Order on Reconsideration, and Notice of Proposed Rulemaking*, WC Docket No. 10-90, FCC 18-29, adopted March 14, 2018, released March 23, 2018, paragraph 120, p. 47, available at https://ecfsapi.fcc.gov/file/032360174101/FCC-18-29A1.pdf.

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

[24] Ibid., p. 27.

[25] See https://www.fcc.gov/document/fcc-action-transform-lifeline-program-low-income-americans.

[26] FCC, *FCC News Release*, "FCC Takes Major Steps to Transform Lifeline Program for Low-Income Americans," November 16, 2017, available at https://apps.fcc.gov/edocs_public/attachmatch/DOC-347792A1.pdf.

providers) that serve tribal lands."[27] The Healthcare Connect Fund provided $52 million in 2014, "a portion of which went to tribal lands."[28]

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.[29] This portfolio consists of over $6.7 billion in telecommunications investments, which 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."[30]

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. Additionally, a new Broadband Loan and Grant Pilot Program was established by the Consolidated Appropriations Act, 2018 (P.L. 115-141).

Community Connect Grant Program

The Community Connect Program[31] 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."[32]

Distance Learning and Telemedicine Program

Distance Learning and Telemedicine (DLT) grants[33] 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. Broadband facilities (if owned by the applicant) are also eligible. 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."[34]

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

[28] Ibid.

[29] See CRS Report RL33816, *Broadband Loan and Grant Programs in the USDA's Rural Utilities Service*, by Lennard G. Kruger.

[30] 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.

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

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

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

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

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)[35] 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.[36]

Telecommunications Infrastructure Loans and Loan Guarantee Program

The Telecommunications Infrastructure Loan and Loan Guarantee Program[37] provides loans and loan guarantees for the construction, maintenance, improvement, and expansion of telephone service and broadband in rural areas. The program was first authorized in 1949 to finance rural telephone service. Since 1995, RUS has required that networks funded by this program offer broadband service as well. 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."[38]

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.[39] 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; waive nonduplication restrictions,[40] matching fund requirements, or credit support requirements[41] 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 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.

Broadband Loan and Grant Pilot Program

The Consolidated Appropriations Act, 2018 (P.L. 115-141) appropriated $600 million to RUS to "conduct a new broadband loan and grant pilot program." Projects in rural areas without sufficient access to broadband are eligible. According to USDA Secretary Sonny Perdue, the $600

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

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

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

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

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

[40] Nonduplication 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.

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

million in appropriated funding for the new pilot grant and loan combination program will "provide broadband to under-served rural and tribal areas" and "leverage nearly $1 billion in total new rural broadband projects."[42]

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).[43] In 2009 and 2010, NTIA awarded funding for 233 projects and RUS awarded funding for 297 broadband infrastructure projects.[44] 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.[45] According to NTIA, six tribal authorities received BTOP grants and at least 65 BTOP projects will directly benefit tribal communities.[46]

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 specific 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)—"The ICDBG program 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."[47]
- Indian Housing Block Grant (IHBG)—"Eligible activities include housing development, assistance to housing developed under the Indian Housing

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

[43] For information on broadband stimulus programs, see CRS Report R41775, *Background and Issues for Congressional Oversight of ARRA Broadband Awards*, by Lennard G. Kruger.

[44] A small portion of these project awards were ultimately rescinded; see ibid., p. 5.

[45] 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.

[46] Department of Commerce, National Telecommunications and Information Administration, *The Broadband 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.

[47] *BroadbandUSA: Guide to Federal Funding of Broadband Projects*, p. 24. As an example, in 2005 the Coquille Tribe of Oregon received an ICDBG grant of $421,354 for broadband infrastructure deployment (see https://www.ntia.doc.gov/files/ntia/publications/broadband_fed_funding_guide.pdf, p. 18).

Program, housing services to eligible families and individuals, crime prevention, safety and model activities that provide creative approaches to solving affordable housing problems."[48] There is also a Native Hawaiian Housing Block Grant program.

- Tribal Housing Activities Loan Guarantee Program (Title VI)—the program "assists IHBG recipients (borrowers) who want to finance eligible affordable housing activities but are unable to secure financing without the assistance of a federal guarantee."[49]

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.[50]

An additional source of federal funding potentially available for tribal broadband is the Economic Development Assistance programs at the Economic Development Administration (EDA) in the Department of Commerce. For example, in September 2017, EDA announced an Economic Adjustment Assistance project award of $144,000 to the Confederated Tribes of the Umatilla Indian Reservation in Pendleton, OR, to support the development of a broadband fiber optics network near Pendleton to be located on the Umatilla Reservation.

BroadbandUSA

While not providing funding, BroadbandUSA at the NTIA offers one-to-one technical assistance to communities (including tribal communities) seeking to plan and implement broadband initiatives.[51] BroadbandUSA also organizes regional events and workshops bringing together broadband stakeholders and publishes guides and tools (including toolkits for local and tribal governments) that can serve as resources for communities seeking to launch broadband initiatives.[52]

Infrastructure Initiative and Broadband

On February 12, 2018, the Trump Administration released its *Legislative Outline for Rebuilding Infrastructure in America*.[53] The plan does not dedicate any funding exclusively for broadband, but does include rural broadband among the types of infrastructure projects that would be eligible for funding. Proposed funding streams include $50 billion for a Rural Infrastructure Program, $20 billion for a Transformative Projects Program, $14 billion for expanding existing federal credit programs that address infrastructure, and $6 billion for expanding the scope of Public Activity Bonds (PABs). It will be up to Congress to determine the extent to which the Administration

[48] Ibid., p. 25.

[49] Ibid., p. 26.

[50] Ibid., pp. 35-36.

[51] For more information on the types of technical assistance BroadbandUSA offers, see http://www2.ntia.doc.gov/technical_assistance.

[52] See http://www2.ntia.doc.gov/publications.

[53] The White House, *Legislative Outline for Rebuilding Infrastructure in America*, released February 12, 2018, 53 pages, available at https://www.whitehouse.gov/wp-content/uploads/2018/02/INFRASTRUCTURE-211.pdf.

infrastructure proposal will be implemented, and how an infrastructure initiative will be legislated.

Activities in the 114th Congress

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 have required 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.[54]

Legislation in the 115th Congress

The Consolidated Appropriations Act, 2018 (P.L. 115-141) appropriated $600 million to RUS to conduct a new broadband loan and grant pilot program. While no funding was specifically set aside for tribal broadband, projects in rural tribal areas would be eligible for funding. Also in P.L. 115-141, Section 508 of Division P required the FCC to submit a report to Congress evaluating broadband coverage in Indian country and on land held by a Native Corporation pursuant to the Alaska Native Claims Settlement Act, with the FCC required to complete a proceeding to address the unserved areas identified in the report.

Other introduced legislation specifically related to tribal broadband includes the following:

- H.R. 800 (Huffman), introduced on February 1, 2017, as the New Deal Rural Broadband Act of 2017, includes a provision (§4) that would establish a Tribal Broadband Assistance Program. The Department of Agriculture would be authorized to make grants, loans, or loan guarantees to entities to (1) plan, construct, acquire, or improve facilities or equipment for the purpose of providing broadband service on tribal lands; (2) provide broadband service on tribal lands; (3) develop among tribal members technical expertise related to broadband service; and (4) improve the adoption of broadband service by individuals on tribal lands. The bill would authorize $25 million for each of fiscal years 2017 through 2022. Referred to the Committee on Agriculture, and in addition to the Committees on Natural Resources and Energy and Commerce.
- H.R. 1581 (Ruiz), introduced on March 16, 2017, as the Tribal Digital Access Act of 2017, would amend the Communications Act of 1934 to add access to telecommunications and information services in Indian country and areas with high populations of Indian people to the universal service principle relating to access to such services in rural, insular, and high cost areas. Referred to the Committee on Energy and Commerce.

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

- H.R. 3268 (Aderholt), the FY2018 Agriculture Appropriations bill, funds Community Connect grants and broadband loans, and is accompanied by the House Appropriations Committee report (H.Rept. 115-232), which 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.

- H.R. 4506 (Torres), introduced on November 30, 2017, as the Jobs for Tribes Act, would direct GAO to conduct a study assessing a range of federal programs (including broadband and telecommunications programs) available to assist Indian communities with business and economic development. Referred to the Committees on Natural Resources; Foreign Affairs; and Education and the Workforce.
- H.R. 5007 (Ruiz), introduced on February 13, 2018, would direct the FCC to submit to Congress a report evaluating broadband coverage in Indian country and on land held by a Native Corporation and to complete a proceeding to address the unserved areas identified in the report. Referred to the Committee on Energy and Commerce.
- H.R. 5172 (O'Halleran), introduced on March 6, 2018, would assist Indian tribes in maintaining, expanding, and deploying broadband systems. Referred to the Committee on Agriculture, and in addition to the Committee on Energy and Commerce.
- S. 1116 (Hoeven), introduced on May 11, 2017, as the Indian Community Economic Enhancement Act of 2017, would direct GAO to conduct a study assessing a range of federal programs (including broadband and telecommunications programs) available to assist Indian communities with business and economic development. Referred to the Committee on Senate Indian Affairs; reported by Committee on October 17, 2017 (S.Rept. 115-174).
- S. 2205 (Heinrich), introduced on December 7, 2017, as the Tribal Connect Act of 2017, would improve access by Indian tribes to support from the Schools and Libraries Universal Service Support program (E-rate) of the Federal Communications Commission. Referred to the Committee on Indian Affairs.

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, the federal government has pursued other policies relevant to tribal broadband. These include mechanisms for effective coordination

and consultation with tribes on broadband issues,[55] spectrum policies to promote wireless broadband deployment on tribal lands,[56] addressing permitting and environmental review issues for deploying broadband infrastructure on tribal lands,[57] and rights-of-way policies to enable broadband infrastructure deployment on public lands.[58] On January 31, 2017, FCC Chairman Ajit Pai announced the formation of a Broadband Deployment Advisory Committee, which is developing advice and recommendations to the FCC on how to accelerate the deployment of broadband by reducing and/or removing regulatory barriers to infrastructure investment.[59]

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."[60] 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 enacted by Congress that would specifically establish a Tribal Broadband Fund.

Currently, the largest overall source of federal funding for telecommunications services is the FCC's Universal Service Fund programs. As these programs transition toward 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 toward addressing the relatively low levels of broadband deployment and adoption in tribal lands.[61] 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. In the 115th Congress, notwithstanding whether federal broadband funding programs target tribal lands, whether or not tribal lands will receive additional

[55] 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.

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

[57] See, for example, https://www.fcc.gov/document/fcc-acts-speed-deployment-next-gen-wireless-infrastructure-0. Also see https://www.fcc.gov/document/fcc-streamlines-requirements-utility-pole-replacements-0.

[58] 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.

[59] See https://www.fcc.gov/broadband-deployment-advisory-committee.

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

[61] 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.

funding for broadband will likely be determined by the ongoing trajectory of overall federal funding for broadband.

Author Information

Lennard G. Kruger
Specialist in Science and Technology Policy

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