U.S. Department of the Interior
Assistant Secretary-Indian Affairs
Office of Indian Energy and Economic Development
Division of Economic Development

Tribal Economic Development Principles-at-a-Glance Series
Opportunity Zones in Indian Country

Tribal Economic Development Principles-at-a-Glance Series

Expanding Broadband in Indian Country

This is the 20th in a series of economic development primers produced by the Division of Economic Development (DED), Office of Indian Energy and Economic Development (IEED), to offer answers to fundamental questions about creating jobs and expanding economies in tribal communities.

Nothing in this primer is intended, nor should it be relied upon, as legal advice. Rather, it is meant to acquaint tribal governments with the fundamentals of Opportunity Zones, and to better equip them to work with legal and tax professionals they retain to harness the tax benefits of creating or expanding tribal businesses in such areas.

If you would like to discuss Opportunity Zones and their impact on Indian Country in more detail, please contact the DED at (202) 208-0740.

Expanding Broadband in Indian Country

This is the 20th in a series of economic development primers produced by the Division of Economic Development (DED), Indian Affairs Office of Indian Energy and Economic Development (IEED), to offer answers to fundamental questions about creating jobs and expanding economies in tribal communities. If you would like to discuss broadband in Indian Country in more detail, please contact the Division of Economic Development at (202) 219-0740.

What is Broadband?

The word "broadband" typically refers to high speed Internet access that is always accessible and does not need to be turned on like the previous dial-up access technology. There are several technologies through which broadband or high-speed Internet is transmitted including: Digital Subscriber Line (DSL), Cable Modem, Satellite, Wireless, Broadband over Powerlines (BPL), and Fiber. [1] The FCC explains each technology as:

- **DSL –** DSL utilizes traditional copper telephone lines that already exist in homes and businesses to transmit data anywhere from several hundred Kbps to millions of bits per second (Mbps).

- **Cable Modem –** Cable modem speeds are comparable to DSL and use a cable connection to provide broadband services.

- **Satellite –** Satellite speeds are about ten times faster than dial-up access, but slower than DSL and cable modem technologies. Broadband speeds delivered via satellite depend on outside weather elements as well as whether the area from the where the user is located to the satellite is clear or obstructed.

- **Wireless –** Wireless technology speeds are similar to DSL and cable modem. In rural areas wireless is oftentimes a cheaper alternative to DSL and cable modem technologies.

- **Broadband over Powerlines –** This technology employs the use of electrical lines to provide broadband to users and its speeds are similar to DSL and cable modem.

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[1] https://www.fcc.gov/general/types-broadband-connections

- **Fiber** – Fiber optic technology is much faster than both DSL and cable modem technology by as much as hundreds of Mbps. It utilizes very fine glass fiber to transmit broadband.

What kind of fixed Internet access do Tribes have compared to the U.S. as a whole?

The table below shows the percentage of U.S. population segments that are connected to fixed terrestrial broadband Internet (more specifically, to the FCC's benchmark speed of 25 Mbps/3 Mbps for fixed advanced telecommunications capability). As of year-end 2017, 94.0% of the entire population in the United States had coverage of such services compared to only 68.0% of people on tribal lands[2]. This means there are still 32.0% of people on tribal lands that are disconnected to benchmark speed broadband Internet services compared to only 6.0% of people in the United States as a whole (as shown in the graph to the right).

Percent of Population Disconnected to Fixed Internet Benchmark Speed (2017)

	United States 6.0%	Tribal Lands 32%
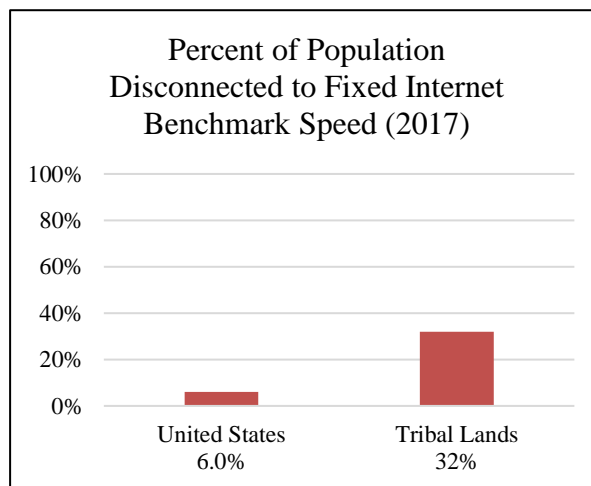
Deployment (Millions) of Fixed Terrestrial 25 Mbps/3 Mbps Services

	2013		2014		2015		2016		2017	
	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%
United States	263.971	83.6%	284.277	89.4%	287.853	89.9%	296.373	91.9%	306.328	94.0%
Rural Areas	29.077	47.6%	37.202	60.4%	38.271	61.5%	42.677	67.8%	48.288	75.7%
Urban Areas	234.893	92.3%	247.075	96.4%	249.582	96.7%	253.695	97.7%	258.040	98.5%
Tribal Lands	1.449	37.1%	2.250	57.2%	2.290	57.8%	2.520	63.1%	2.731	68.0%
Pop. Evaluated	315.596	100.0%	317.954	100.0%	320.289	100.0%	322.518	100.0%	325.716	100.0%

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[2] https://docs.fcc.gov/public/attachments/FCC-18-181A1.pdf
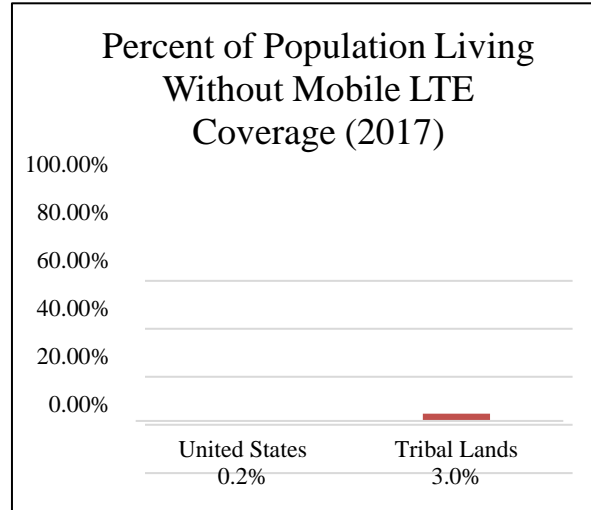
What kind of Mobile Internet access do Tribes have compared to the U.S. as a whole?

The table below shows the percentage of U.S. population segments that live in geographical areas covered by mobile Long Term Evolution (LTE) with a minimum advertised speed of 5 Mbps/1 Mbps. Mobile LTE refers to mobile broadband or mobile data. Mobile LTE makes downloading apps, browsing the Internet and accessing e-mail, for example, on a cellphone possible. As of year-end 2017, 99.8% of the entire population in the United States lived in a geographical area with mobile LTE coverage compared to 97% of people on tribal lands[3].

While the difference is not as drastic as the disparity between fixed Internet access on tribal lands versus the rest of the United States as a whole, there are still 3% of people living on tribal lands with no mobile LTE coverage compared to only 0.2% of people in the United States as a whole.

Percent of Population Living Without Mobile LTE Coverage (2017)

	United States 0.2%	Tribal Lands 3.0%
100.00%		
80.00%		
60.00%		
40.00%		
20.00%		
0.00%		

Deployment (Millions) of Mobile LTE with a Minimum Advertised Speed of 5 Mbps/1 Mbps

|	2013		2014		2015		2016		2017	
	Pop.	%	Pop.	%	Pop.	%	Pop.	%	Pop.	%
United States	308.527	97.8%	315.506	99.2%	318.923	99.6%	321.347	99.6%	325.117	99.8%
Rural Areas	55.044	90.2%	59.463	96.5%	60.969	97.9%	61.802	98.2%	63.204	99.1%
Urban Areas	253.483	99.6%	256.043	99.9%	257.954	100.0%	259.545	100.0%	261.912	100.0%
Tribal Lands	3.386	86.7%	3.626	92.2%	3.722	93.9%	3.788	94.9%	3.896	97.0%
Pop. Evaluated	315.596	100.0%	317.954	100.0%	320.289	100.0%	322.518	100.0%	325.716	100.0%

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[3] Ibid.

What are the barriers to broadband deployment on tribal lands?

A large proportion of tribal areas are located on rough terrain in rural locations. In addition, like most rural locations, populations are sparser than in urban areas. These factors drive up the cost for businesses to serve tribal areas, creating a barrier to broadband deployment on tribal lands[4]. Rural location alone is not an insuperable barrier to broadband deployment. As seen in the graph to the right, rural broadband deployment is achievable - 73.3% of rural non-tribal locations are covered by at least one terrestrial fixed-broadband provider at the FCC's benchmark speed of 25/3 Mbps[5].

However, a disparity exists with respect to rural tribal lands. In sharp contrast to rural non-tribal lands, only 46.6% of rural tribal locations have coverage. This disparity is evident at every Internet speed.

Comparison of Broadband Coverage
Percent of housing units covered by at least one terrestrial fixed-broadband provider

The Federal Government recognizes this disparity and is working to decrease the gap in service between tribal and non-tribal locations.
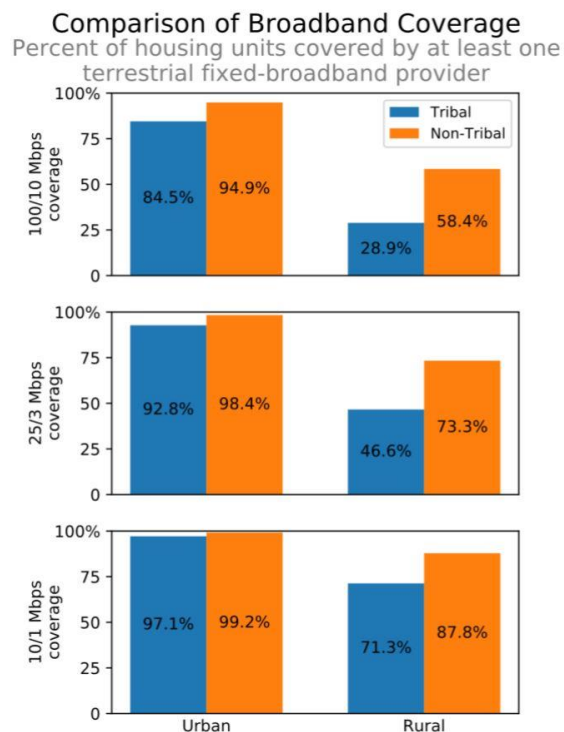
How is the Federal Government addressing the disparity in broadband deployment?

The Federal Government recognizes that Internet access is essential for tribes to further sovereignty, economic development, education, public safety, and cultural preservation. The Federal Communications Commission (FCC), the U.S. Department of Agriculture (USDA), and the U.S. Department of Commerce are addressing the disparity in broadband deployment between tribal areas and the U.S. as a whole.

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[4] https://www.gao.gov/assets/700/694810.pdf
[5] https://docs.fcc.gov/public/attachments/DOC-357269A1.pdf

Federal Communications Commission

The FCC has established a Native Nations Communications Task Force comprised of 19 tribal members and eight FCC members to carry out the FCC's mission of increasing access to affordable Internet services on tribal lands. Currently, the FCC's Universal Service Fund provides support through four programs[6]:

1) **Connect America Fund (formally known as High-Cost Support)** – This program subsidizes the cost of providing service to high-cost areas for qualifying telephone companies. This allows users in rural areas to pay reasonable rates comparable to those charged to users in urban areas. To learn more, please click here.

2) **Lifeline Program** – This program provides lower cost phone service to qualifying low-income consumers. To learn more, please click here.

3) **E-Rate (Schools and Libraries Support)** – This program provides funding to schools and libraries so they may have access to Internet and telecommunications services. Schools and libraries may obtain discounts ranging from 20 percent to 90 percent of the costs of eligible services. To learn more, please click here.

4) **Rural Health Care Support** – This program provides funding to reduce the cost of Internet and telecommunications services for rural healthcare providers. To learn more, please click here.

Other programs and resources offered through the FCC include:

- **Tribal Radio Priority** – An FCC rule provides broadcast radio licensing preference for Tribes or tribally owned or controlled entities in both AM and FM bands. For more information please contact Tom Nessinger at thomas.nessinger@fcc.gov.

- **Fixed Broadband Deployment Map** – https://broadbandmap.fcc.gov/#/

To learn more about support and programs offered through the FCC please click here or call 202-418-2930.

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[6] https://www.fcc.gov/general/universal-service

United States Department of Agriculture

- **ReConnect Program** – The ReConnect Broadband Grant and Loan Program provides eligible applicants, including Indian Tribes, funding opportunities for broadband deployment in rural areas. Program funds may be used for construction, improvement and acquisition of qualifying facilities, and acquisition of an existing system under certain circumstances and to cover some pre-application expenses. To learn more and apply, please click here.

- **Tribal College Initiative Grants –** These grants fund tribal colleges to make capital improvements to their facilities and purchase equipment. For more information, please click here.

- **Rural Broadband Access Loan and Loan Guarantee Program –** This program furnishes loans and loan guarantees to eligible applicants, including Indian tribes or tribal organizations, to provide funds for the costs of construction, improvement, or acquisition of facilities and equipment needed to provide service at the broadband lending speed in eligible rural areas. To learn more, please click here.

- **Telecommunications Infrastructure Loans & Loan Guarantees** – This program provides financing to eligible applicants, including federally recognized tribes, for the construction, maintenance, improvement and expansion of telephone service and broadband in rural areas. For more information, please click here.

National Telecommunications and Information Administration

- **State and Local Implementation Grant Program** – This funding provides eligible applicants, including tribal governments, with the resources to work with stakeholders throughout the state or territory to identify needs, gaps, and priorities for public safety wireless broadband. For more information please click here.
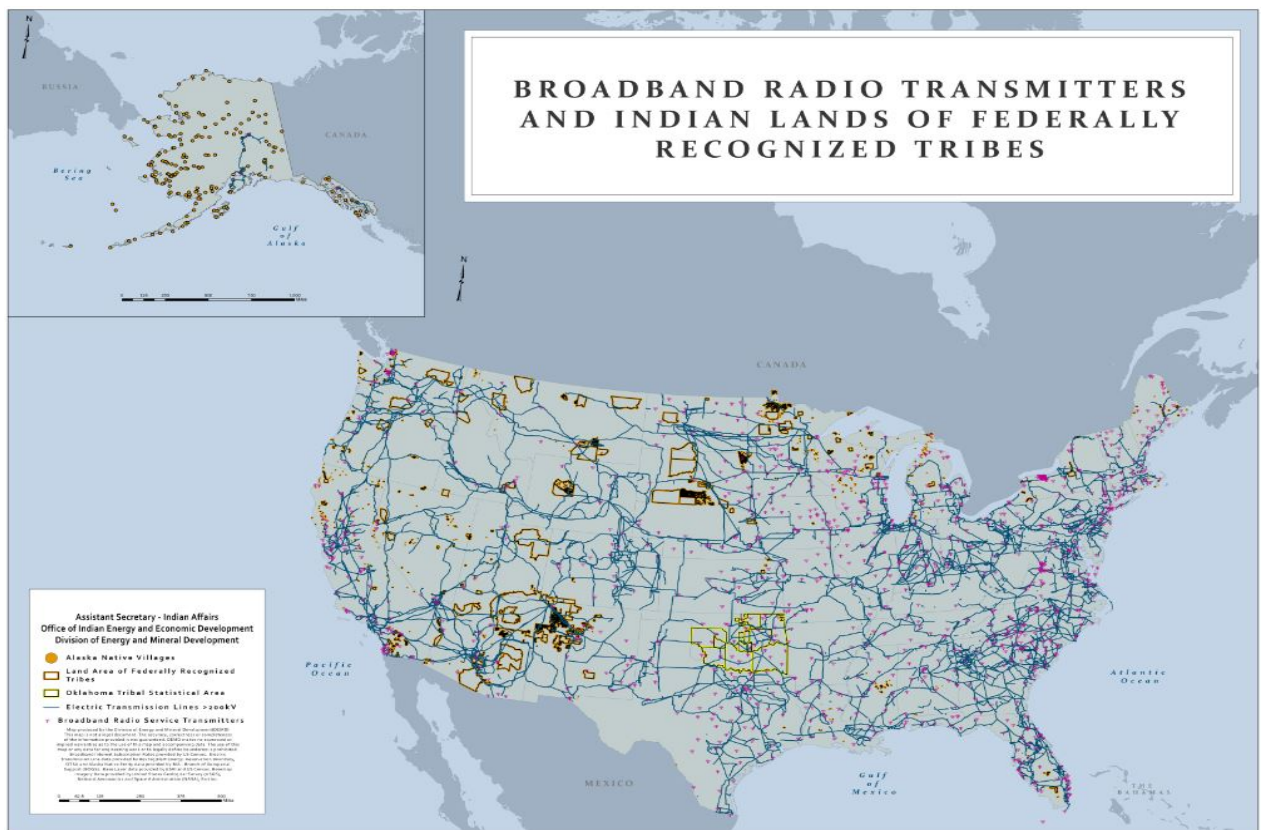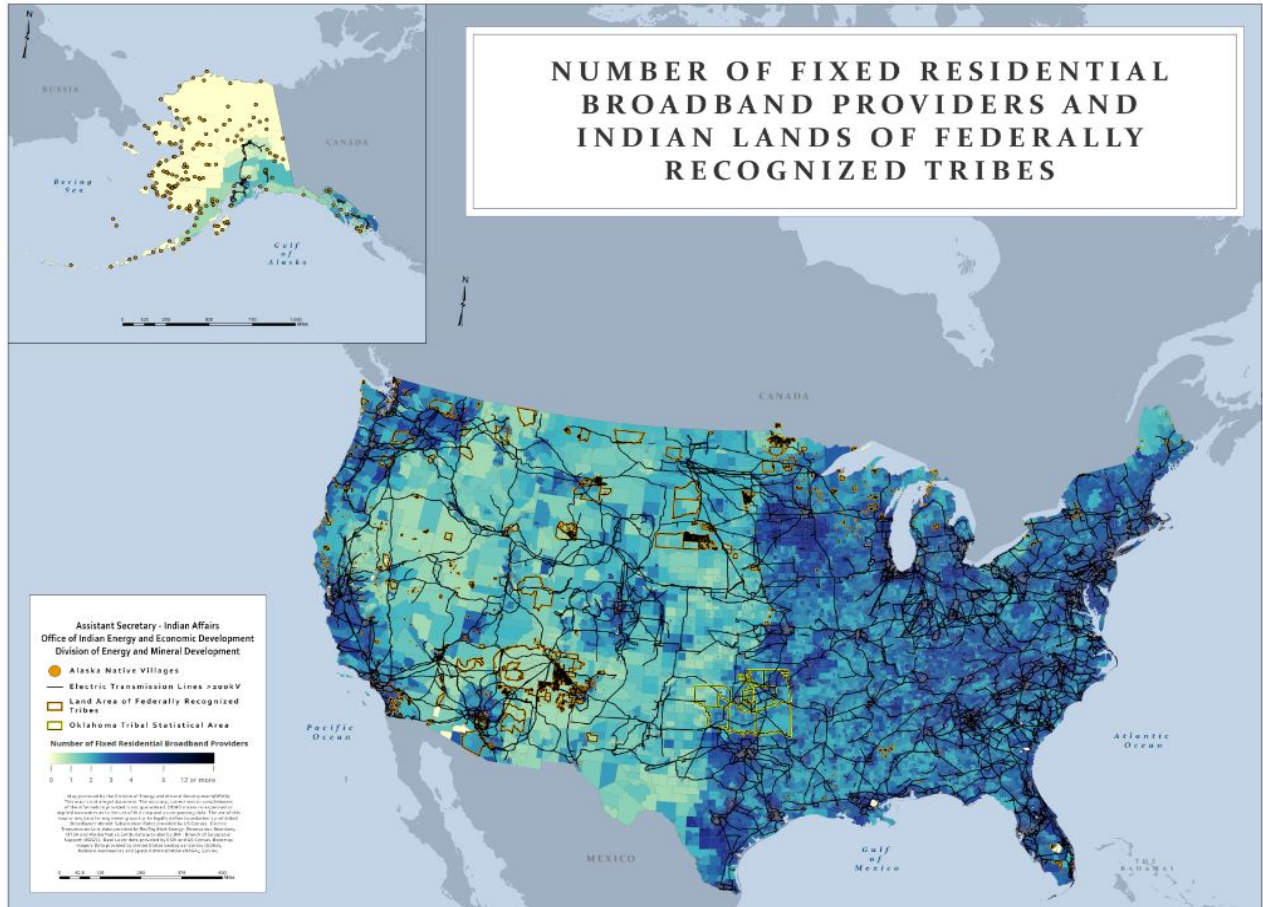
Department of Commerce

- **911 Grant Program** – This program provides federal funding to eligible applicants, including tribal organizations, to help 911 call centers nationwide upgrade equipment and

operations so that citizens, first-responders, and 911 call-takers can use digital, IP-based, broadband-enabled technologies to coordinate emergency responses. For more information please click here or contact Jennifer Duane at 202-482-1763.

The next page includes maps of broadband in Indian Country

NUMBER OF FIXED RESIDENTIAL BROADBAND PROVIDERS AND INDIAN LANDS OF FEDERALLY RECOGNIZED TRIBES

BROADBAND RADIO TRANSMITTERS AND INDIAN LANDS OF FEDERALLY RECOGNIZED TRIBES

PERCENTAGE OF HOUSEHOLDS WITH BROADBAND INTERNET SUBSCRIPTIONS ON INDIAN LANDS OF FEDERALLY RECOGNIZED TRIBES