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POLICY REVIEW

AIPI Policy Review: Barriers and Challenges for Tribal Access to Broadband Internet

According to the Federal Communications Commission’s (FCC) *2018 Broadband Deployment Report*, an estimated 35 percent of residents of Tribal landsⁱ lacked access to broadband speeds at 25 Mbps download and 3 Mbps upload (25 Mbps/3 Mbps)ⁱⁱ, which is the U.S. standard. Comparatively, the majority of the U.S. population has access to high-speed broadband at or above the standard with just 8 percent without a broadband connectionⁱⁱⁱ. Since the early 2000’s, Tribes have lagged behind the rest of the U.S. in access to telecommunications services, both telephone and internet; this is exemplative of the digital divide on Tribal lands.

Recognizing the persistent disparity in telecommunications availability on Tribal lands, the Senate Committee on Indian Affairs directed the Government Accountability Office (GAO) to conduct a series of federal performance audits throughout 2018 to determine current challenges and barriers to access. Two of these reports culminated in an Oversight Hearing held by the Senate Committee on Indian Affairs in October 2018, while another report released in November 2018 highlighted issues with Tribal access to wireless spectrum.

This AIPI Policy Review will provide:

- I. [An overview of GAO’s findings recognizing barriers and challenges to telecommunications access for residents of Tribal lands;](#)
 - a. [FCC’s Data Overstate Access on Tribal Lands](#)
 - b. [Few Partnerships Exist and the Rural Utilities Service Needs to Identify and Address Any Funding Barriers Tribes Face](#)
 - c. [FCC Should Undertake Efforts to Better Promote Tribal Access to Spectrum](#)
- II. [Reiteration of issues highlighted in Testimony Provided at the Senate Committee on Indian Affairs Oversight Hearing on, “GAO Reports Relating to Broadband Availability on Tribal Lands”;](#)
- III. [A summary of recommendations offered by the GAO, and Witness Testimony offered to the Senate Committee on Indian Affairs, to address disparate telecommunications access on Tribal lands.](#)

I. GAO Findings: Challenges and Barriers to Tribal Telecom Access

The Government Accountability Office (GAO) is an independent, non-partisan agency that is part of the legislative branch of government^{iv}.

Formerly known as the Government Accounting Office until 2004, it was established by Congress in 1921 to initially conduct audits on the legality of government expenditures^v. GAO has since broadened its role to audit, investigate, and evaluate government operations and programs at the request of congressional committees, subcommittees, or as required by committee reports and mandates under public law^{vi}. The following GAO reports were issued in September and November 2018 at the request of members from the Senate Committee on Indian Affairs^{vii}.

a. Sept. 2018—Broadband Internet: FCC’s Data Overstate Access on Tribal Lands

The primary method the FCC uses to collect telecommunications availability across the U.S. is through its Form 477. FCC certified eligible telecommunications carriers (ETCs) receiving subsidies from the Universal Service Fund (USF) are required to annually submit data to the FCC on Census blocks they provide service to. However, GAO found ETC reported Form 477 data to be highly inaccurate in some instances when reporting telecommunications coverage on Tribal lands. GAO stated that Form 477 data,

“Does not accurately or completely capture broadband access on tribal lands because it (1) captures nationwide broadband *availability* data—areas where providers may have broadband infrastructure—but does so in a way that leads to overstatements of availability, and (2) does not capture information on factors that FCC and tribal stakeholders have stated can affect broadband access on tribal lands, such as affordability, service quality, and denials of service”^{viii}.

In reporting Form 477 data, a carrier reporting coverage in a Census block may indicate that only a single household is receiving such

service^{ix}. These misrepresentations of service availability could lead to Census blocks on Tribal lands being ineligible to apply for federal broadband infrastructure funds. For instance, the GAO found that some of the Tribes interviewed had specifically stated that they were unable to access federal funds to deploy broadband infrastructure due to their reservation lands being listed as ‘served’ by other broadband providers^x. In GAO’s report the FCC acknowledged that every person and/or location in a Census block, especially larger Census blocks in rural areas, may not actually have access to broadband services despite Form 477 reported data indicating otherwise^{xi}.

b. Sept. 2018—Tribal Broadband: Few Partnerships Exist and the Rural Utilities Service Needs to Identify and Address Any Funding Barriers Tribes Face

According to the National Telecommunications and Information Administration (NTIA), there are currently 17 federal programs that offer funding for broadband infrastructure projects^{xii}. In this report, GAO conducted an analysis of three FCC programs and one program offered through the U.S. Department of Agriculture, Rural Utilities Service (RUS) to determine challenges Tribes experience in accessing federal funding for broadband projects^{xiii}.

The three FCC programs analyzed by the GAO included:

The High Cost Program of the Connect America Fund: Between 2010 and 2017 this program provided annual disbursements between \$3.7 and \$5 billion for a total of \$34.1 billion over the seven-year period. Though not a Tribal specific program, the High Cost Program offers subsidies to FCC certified wireline and wireless service providers to deploy broadband nationwide,

including on Tribal lands^{xiv}. GAO found that nine Tribally-owned and operated telecommunications providers received a total of just \$218.1 million between 2010 and 2011^{xv};

The Mobility Fund Phase I: Provided targeted support for FCC certified wireless providers to deploy broadband in areas where service did not currently exist, which included Tribal lands. This program offered one-time support in 2012 in the amount of \$300 million^{xvi}. GAO found that only one Tribally-owned telecommunications provider received Mobility Fund Phase I support in the amount of \$3.3 million^{xvii}; and

The Tribal Mobility Fund Phase I: Provided targeted support for FCC certified wireless service providers to deploy broadband to unserved Tribal lands. Phase I of the program was awarded in 2014 in the amount of \$49.8 million^{xviii}. GAO found that no Tribal providers received support from the Tribal Mobility Fund Phase I^{xix}.

GAO also conducted an analysis of one grant program offered by RUS:

The Community Connect Grant Program: Grant funds are awarded for eligible applicants to provide broadband service that fosters economic development, and offers benefits for enhanced education, healthcare, and public safety services. The Community Connect program provided \$95.2 million in grants to 36 recipients between 2010 and 2017^{xx}. GAO found that just four Tribal entities received \$13.5 million in grant funds between 2010 and 2017^{xxi}.

In total, GAO found that over the seven-year period just 14 Tribal entities received federal funding to support broadband infrastructure deployment:

- 10 Tribally-owned telecommunications providers accessed support from the three FCC programs analyzed by GAO, comprising just 0.6 percent of the program's total support offered between 2010 and 2017; and
- Four Tribal entities were awarded grant funds from the RUS Community Connect program, comprising just 11 percent of the total programmatic funds offered between 2010 and 2017.^{xxii}

While GAO recognized several successful partnerships that Tribal governments and/or Tribally-owned telecom providers arranged with non-Tribal telecom providers, the agency cited that none of the partnerships they identified were currently leveraging federal support from the four federal programs analyzed in this report^{xxiii}. Instead, these partnerships were established under previously allocated federal funds from the *American Recovery and Reinvestment Act of 2008* (P.L. 111–5), specifically the Broadband Initiatives Program and the Broadband Technology Opportunities Program^{xxiv}.

Additionally, GAO found that Tribal entities highlighted two primary barriers to accessing federal funds for broadband: 1) statutory requirements for a Tribal provider to become FCC certified as an ETC; and 2) RUS grant application requirements to prepare existing and future network designs, and demonstration of financial stability within a five-year period for a funded project^{xxv}.

[c. Nov. 2018—Tribal Broadband: FCC Should Undertake Efforts to Better Promote Tribal Access to Spectrum](#)

The final 2018 report released by GAO analyzed barriers and challenges for Tribes to access spectrum licenses. The FCC is an independent federal agency that regulates interstate and international radio, satellite, wire, and cable

communications in the United States^{xxvi}. Part of the FCC's responsibility includes managing spectrum allocation for non-federal use, which it conducts by awarding spectrum licenses to non-federal entities such as state and local governments and commercial and private entities^{xxvii}. The FCC awards spectrum licenses through auction mechanisms, oversight of secondary market transactions between license holders and potential leasees, and develops regulations for licensed and unlicensed spectrum use by non-federal entities^{xxviii}. In its November 2018 report, GAO found that just 18 Tribal entities held spectrum licenses that could support the delivery of broadband services^{xxix}.

Tribes interviewed by GAO identified the following barriers to accessing spectrum licenses:

Too Expensive to Obtain Spectrum Licenses: 60 percent of spectrum licenses auctioned in 2015, including those covering Tribal lands, received bids of over \$1 million;

Limited Access through Secondary Market Transactions: Commercial spectrum licenses have already been awarded through FCC auctions, and providers may hold licenses over Tribal lands but are not deploying services. GAO found that either Tribes did not know who held licenses over their lands, or license holders were unwilling to enter into secondary market transactions with Tribes; and

FCC Does Not Collect Information on Spectrum Over Tribal Lands: Currently the FCC collects information on a self-reported basis from licensees. The agency does not collect information on spectrum holders, or applicants of its auction proceedings, to determine if the entity is Tribal affiliated. The FCC stated such information was not needed, but GAO reported that collection of such information would assist the FCC in

determining how many Tribes have access to spectrum or are attempting to obtain spectrum in an auction. GAO also reported that the FCC does not collect information regarding unlicensed spectrum availability over Tribal lands, which Tribes could leverage to provide wireless broadband services in remote and high cost areas.^{xxx}

GAO also noted that the FCC had initiated a rulemaking in March 2011 that included several proposals aimed at increasing Tribal access to spectrum licenses, but the rulemaking was never finalized and adopted by the FCC^{xxxi}. FCC Docket WT 11-40, *In the Matter of Improving Communications Services for Native Nations by Promoting Greater Utilization of Spectrum Over Tribal Lands* included numerous Tribal-specific proposals, such as establishing:

1. A Tribal licensing priority to unassigned spectrum licenses;
2. Formal processes for good faith negotiations in secondary market transactions between non-Tribal entities and Tribes; and
3. A build-or-divest process that would require license holders to build out to the geographic areas of the license that included unserved or underserved Tribal lands, or divest said geographic areas of the license so that a Tribe or non-Tribal entity could have the opportunity to deploy services in those areas.^{xxxii}

Additionally, during the time GAO was conducting its audit the FCC had initiated a regulatory proceeding that included a proposal to provide a Tribal priority to repurposed Educational Broadband Service spectrum^{xxxiii}.

II. Oversight Hearing Held by Senate Committee on Indian Affairs

On October 3, 2018 the Senate Committee on Indian Affairs held an Oversight Hearing on “GAO Reports Relating to Broadband Internet Availability on Tribal Lands”. The focus of this hearing were the September 2018 GAO reports on “Broadband Internet: FCC’s Data Overstate Access on Tribal Lands” and “Tribal Broadband: Few Partnerships Exist and the Rural Utilities Service Needs to Identify and Address Any Funding Barriers Tribes Face”.

The Witness list included:

[Mr. Mark Goldstein, Director, Physical Infrastructure Issues, U.S. Government Accountability Office \(GAO\), Washington, DC](#)

[Mr. Patrick Webre, Chief of the Consumer and Government Affairs Bureau, Federal Communications Commission \(FCC\), Washington, DC](#)

[Mr. Godfrey Enjady, President, National Tribal Telecommunications Association \(NTTA\), Mescalero, NM](#)

[Mr. Geoffrey Blackwell, Chief Strategy Office and General Counsel, AMERIND Risk, Santa Ana Pueblo, NM](#)

Testimony Provided by Mr. Mark Goldstein, GAO

As aforementioned, this hearing held by the Senate Committee on Indian Affairs was to discuss two GAO reports released in September 2018. In his Testimony, and in response to questions offered by members of the committee, Mr. Goldstein reported GAO’s findings on the following:

1. *Whether the FCC’s data collection on broadband internet availability on Tribal lands accurately represented residential internet access levels;*

- GAO found several issues with the accuracy of data self-reported by FCC certified ETCs.
2. *How the FCC obtains Tribal input on reported data;*
 - GAO found that there was no formal process at the FCC for Tribes to challenge broadband availability data on Tribal lands. Additionally, when Tribes attempt to dispute reported data they are often unsuccessful. Mr. Goldstein noted that there was a general lack of engagement between non-Tribal telecom providers and Tribal governments to determine deployment needs.
 3. *Examples of partnerships between Tribal and non-Tribal entities to deploy broadband on Tribal lands;*
 - GAO found that many Tribes had established partnerships/agreements with non-Tribal telecom providers to deploy broadband on Tribal lands. However, none had indicated that they were leveraging federal funds from three of the FCC Universal Service Fund programs or the one U.S Department of Agriculture, Rural Utilities Service (RUS) grant program audited in this GAO report.
 4. *Identified any barriers to accessing federal funds that Tribes may experience.*
 - GAO found that data on broadband availability reported by the FCC can make Tribes ineligible to apply for federal funds for broadband infrastructure projects. Tribes also noted that barriers to accessing federal funds included RUS grant application requirements and statutory requirements to be FCC certified as an ETC.^{xxxiv}

[Testimony Provided by Mr. Patrick Webre, FCC](#)

Mr. Webre, Chief of the FCC's Consumer and Governmental Affairs Bureau, provided testimony on behalf of the FCC in response to GAO's findings in its two September 2018 reports. The FCC Consumer and Governmental Affairs Bureau develops and implements policy that support disability rights, consumer education, and outreach to state, local, and Tribal governments^{xxxv}. Mr. Weber's Testimony stated the following:

1. *Consultation with Tribal Nations:* The FCC's Office of Native Affairs and Policy (ONAP), located within the Consumer and Governmental Affairs Bureau, was created in 2010 to conduct consultations and trainings for Tribal Nations. ONAP is also responsible for engaging with other FCC Bureaus and Offices, government agencies, and private organizations to develop regulations to support telecom deployment for Tribal communities;
2. *Renewal of the Native Nations Communications Task Force:* In late 2018 the FCC renewed the Task Force, which is comprised of elected or appointed Tribal leaders that provide guidance and recommendations to the FCC on matters related to broadband deployment on Tribal lands;
3. *Issues with Broadband Availability Data Collection on Tribal Lands:* Acknowledged the issues with inaccuracies in Form 477 data reported by telecom carriers receiving subsidy support from the Universal Service Fund. At the time of the hearing the FCC had initiated a rulemaking to gather feedback from industry, Tribes, and others on how to improve data collection on broadband availability on Tribal lands;

4. *Process for Tribes to Challenge Provider-Submitted Broadband Data:* While the FCC noted that there are informal processes in place for Tribes to challenge provider-reported data, there was a process put in place for Tribes to contest broadband reported data on Census blocks identified for the Tribal Mobility Fund Phase II auction. Tribes were informed of this challenge process by FCC emails to Tribal leaders and IT Managers, presentations at inter-Tribal conferences, and an open FCC workshop held on July 31, 2018 at the Lac du Flambeau Reservation in Wisconsin; and
5. *Feedback Needed on Effectiveness of FCC Tribal Government Engagement Obligation Provisions:* The FCC noted that its Tribal Government Engagement Obligation Provisions (Tribal Government Engagement) adopted in 2012 need to be reevaluated to determine its effectiveness. The Tribal Government Engagement provisions offer guidance to non-Tribal telecom carriers to work with Tribal governments for broadband deployment on Tribal lands. Mr. Webre stated that the FCC will continue to use ONAP as well as the renewed Native Nations Communications Task Force to gather feedback on the Tribal Government Engagement provisions.^{xxxvi}

[Testimony Provided by Mr. Godfrey Enjady, NTTA](#)

The National Tribal Telecommunications Association (NTTA) represents the nine Tribally-owned and operated telecommunications providers offering voice, broadband, and other communications services to their respective communities^{xxxvii}. Mr. Enjady's Testimony highlighted the following points:

1. *More Granular Level Broadband Data on Tribal Lands is Needed:* As FCC certified ETCs receiving subsidy support from the Universal Service Fund, NTTA members also report their broadband access data to the FCC. While good at providing a snapshot overview, more granular data is needed for companies to determine areas unserved and underserved and where investment should be targeted for broadband deployment;
2. *More Resources are Needed to Collect Granular Level Data:* Whether it's the FCC, National Telecommunications and Information Administration, or the USDA RUS, more funding resources and personnel will be needed to collect granular level data of broadband availability on Tribal lands. Tribes should also have the ability to review and certify broadband availability data that is submitted by carriers to the FCC;
3. *The FCC Does Not Collect Data on Broadband Affordability and Quality of Service:* While data on availability is important, there also needs to be data collection to determine if the available service is actually affordable to residents of Tribal lands. Data on quality of service is also important to determine issues regarding the consistency of broadband outages and slow speeds with high latency that could affect subscription rates by residents on Tribal lands; and
4. *Engagement Between Non-Tribal Entities and Tribes is Needed:* This is not an issue for the Tribally-owned and operated telecommunications providers comprising NTTA, but there needs to be more coordination between Tribal entities, private industry, and federal, state, and local governments on several issues (e.g. approval for rights-of-way and easements, as well as

cell tower siting and pole attachments on Tribal lands).^{xxxviii}

[Testimony Provided by Mr. Geoffrey Blackwell, AMERIND Risk](#)

AMERIND Risk was created in 1986 as a federally-chartered, Tribally-owned Section 17 corporation under the *Indian Reorganization Act* (25 U.S.C. Sec. 5124)^{xxxix}. Based out of Santa Ana Pueblo in New Mexico, AMERIND Risk protects nearly \$14 billion in physical infrastructures that include Tribal homes, government buildings, and other structures^{xl}. AMERIND Risk Chief Strategy Officer and General Counsel Geoffrey Blackwell also served as the first Chief of the FCC's Office of Native Affairs and Policy when it was established in August 2010. Mr. Blackwell's testimony highlighted the following:

1. *FCC Form 477 Data is Based on Potential Deployment on Tribal Lands:* Carrier reported data does not necessarily reflect the actual deployment levels reported by Census block, and an entire Census block or tract could be reported as 'served' when a provider reports they connect at least one household. This reporting could inflate the actual deployment levels and broadband availability for residents on Tribal lands;
2. *Almost No Critical Infrastructure Has Reached Tribal Lands Without Federal Investment, Oversight, and Regulation:* Inaccuracies in broadband data reporting has resulted in many Tribes becoming ineligible to apply for federal grants and loans to build broadband infrastructure on Tribal lands. Federal funds must be targeted in an effective manner to ensure broadband service is affordable to residents of Tribal lands;

3. *The FCC Tribal Government Engagement Obligation Provisions Have Not Fulfilled Their Primary Purposes:* Some providers have actively engaged with Tribes to develop needs assessments and deployment, feasibility, and sustainability planning for infrastructure deployment. However, many Tribes have indicated a general lack of engagement from non-Tribal service providers and simply receive a template letter once a year as a way to ‘check the box’ on reporting they’ve engaged with Tribal governments in their service area;
4. *Information provided by Carriers to Tribal Governments is Heavily Redacted or Requires Signing of a Non-Disclosure Agreement:* While there are no current FCC rules that allow or prohibit this practice, it provides a challenge for Tribes to review broadband availability data before it is reported to the FCC. As aforementioned, carrier reported data has led to instances where Tribes become ineligible to apply for federal grants and loans;
5. *The FCC Must Establish a Tribal Broadband Fund:* Senate Committee on Indian Affairs Vice Chairman Tom Udall (D-NM) posed a question on how Tribes can access Universal Service Fund (USF) subsidies—Mr. Blackwell stated that an FCC streamlined process for Tribes to gain ETC status would allow Tribes to access USF subsidies. Mr. Blackwell also mentioned that one of the recommendations from the *2010 National Broadband Plan* was the creation of a dedicated Tribal Broadband Fund to support broadband deployment on Tribal lands.^{xii}

III. In Summation: Recommendations Offered by GAO and Senate Committee on Indian Affairs Witness Testimony

Testimony provided to the Senate Committee on Indian Affairs affirmed GAO’s findings that broadband availability data on Tribal lands is inaccurate. Witnesses offered several recommendations for the FCC to adopt, which included strengthening its Tribal Government Engagement provisions, establishment of a Tribal Broadband Fund, and empowering Tribes with the ability to review carrier reported data before it is submitted to the FCC.

GAO offered the following recommendations to the FCC:

1. The FCC Chairman should improve data collection on Tribal lands, develop a formal process for Tribal review of carrier reported data, and review its Tribal Government Engagement provisions^{xiii};
2. The FCC Chairman should also collect data on Tribal access to spectrum licenses, analyze data to determine unused spectrum licenses over Tribal lands, and improve information accessibility on current licensees with spectrum covering Tribal lands^{xiii}.
3. GAO recommended that the U.S. Department of Agriculture, Rural Utilities Service should conduct an assessment of its programs to determine barriers to Tribal access of federal funds^{xiv}.

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Reference Notes

API Director, Traci Morris and Research and Policy Analyst, Brian Howard participated as interviewees for the Government Accountability Report on “Broadband Internet: FCC’s Data Overstate Access on Tribal Lands”.

ⁱ Note: The U.S. Government Accountability Office relied on the FCC’s definition of Tribal lands as: 1) Joint Use Areas; 2) a legal federally recognized American Indian area consisting of reservation and associated off-reservation trust land; 3) a legal federally recognized American Indian area consisting of reservation only lands; 4) a legal federally recognized American Indian area consisting of off-reservation trust land only; 5) statistical American Indian areas defined for a federally recognized Tribe that does not have reservation or off-reservation trust land, specifically a Tribal designated statistical area (TDSA) or Oklahoma Tribal Statistical Area (OTSA); 6) Alaska Native village statistical area; and 7) Hawaiian Home Lands established by the Hawaiian Homes Commission Act of 1921.

ⁱⁱ See Federal Communications Commission. *2018 Broadband Deployment Report*. GN Docket No. 17-199. February 2018. Accessed at <https://docs.fcc.gov/public/attachments/FCC-18-10A1.pdf>.

ⁱⁱⁱ *Id.*

^{iv} See U.S. Government Accountability Office. About GAO: What GAO Is. Accessed at <https://www.gao.gov/about/what-gao-is/>.

^v *Id.*

^{vi} See U.S. Government Accountability Office. About GAO: What GAO Does. Accessed at <https://www.gao.gov/about/what-gao-does/>.

^{vii} Note: All U.S. Governmental Accountability Office reports referenced in this document were requested by Chairman John Hoeven (R-ND) and Vice Chairman Tom Udall (D-NM) of the 115th Congress, Senate Committee on Indian Affairs. The following Senate committee members were also requestors: John Barrasso (R-WY), Maria Cantwell (D-WA), Steve Daines (R-MT), Martin Heinrich (D-NM), Heidi Heitkamp (D-ND), Brian Schatz (D-HI), and Jon Tester (D-MT).

^{viii} See U.S. Government Accountability Office. *Tribal Broadband: FCC’s Data Overstate Access, and Tribes Face Barriers Accessing Funding*. September 2018. GAO-19-134T. Pg. 14. Accessed at <https://www.gao.gov/assets/700/694386.pdf>.

^{ix} *Id.*

^x *Id.*

^{xi} *Id.*

^{xii} See U.S. Government Accountability Office. *Tribal Broadband: Few Partnerships Exist and the Rural Utilities Service Needs to Identify and Address Any Funding Barriers Tribes Face*. September 2018. GAO-18-682. Accessed at <https://www.gao.gov/assets/700/694810.pdf>.

^{xiii} *Id.* Pg. 4.

^{xiv} *Id.* Pg. 7.

^{xv} *Id.* Pg. 17.

^{xvi} *Id.* Pg. 7.

^{xvii} *Id.* Pg. 17.

^{xviii} *Id.* Pg. 7.

^{xix} *Id.* Pg. 17.

^{xx} *Id.* Pg. 8.

^{xxi} *Id.* Pg. 17.

^{xxii} *Id.* Pg. 18.

^{xxiii} *Id.* Pg. 9.

^{xxiv} *Id.*

^{xxv} *Id.* Pgs. 18-22.

^{xxvi} See Federal Communications Commission. About the FCC: What We Do. Accessed at <https://www.fcc.gov/about-fcc/what-we-do>.

^{xxvii} See Federal Communications Commission. Radio Spectrum Allocation. Accessed at <https://www.fcc.gov/engineering-technology/policy-and-rules-division/general/radio-spectrum-allocation>.

^{xxviii} See U.S. Government Accountability Office. *Tribal Broadband: FCC Should Undertake Efforts to Better Promote Tribal Access to Spectrum*. November 2018. GAO-19-75. Pg. 2. Accessed at <https://www.gao.gov/assets/700/695455.pdf>.

- ^{xxix} See U.S. Government Accountability Office. GAO Highlights. *Tribal Broadband: FCC Should Undertake Efforts to Better Promote Tribal Access to Spectrum*. November 2018. GAO-19-75. Accessed at <https://www.gao.gov/assets/700/695453.pdf>.
- ^{xxx} See U.S. Government Accountability Office. *Tribal Broadband: FCC Should Undertake Efforts to Better Promote Tribal Access to Spectrum*. November 2018. GAO-19-75. Pgs. 20-27. Accessed at <https://www.gao.gov/assets/700/695455.pdf>.
- ^{xxxi} *Id.* Pg. 20.
- ^{xxxii} *Id.* Pg. 20.
- ^{xxxiii} *Id.* pg. 22.
- ^{xxxiv} See U.S. Government Accountability Office. Testimony Before the Committee on Indian Affairs, U.S. Senate. *Tribal Broadband: FCC's Data Overstate Access, and Tribes Face Barriers Accessing Funding*. October 3, 2018. GAO-19-134T. Accessed at <https://www.gao.gov/assets/700/694386.pdf>.
- ^{xxxv} See Testimony provided by Mr. Patrick Webre, Chief, Consumer and Governmental Affairs Bureau, Federal Communications Commission. U.S. Senate Committee on Indian Affairs, Oversight Hearing on GAO Reports Relating to Broadband Internet Availability on Tribal Lands. October 3, 2018. Accessed at <https://www.indian.senate.gov/sites/default/files/Webre%20Testimony%20SCIA%20Oct%203%20FINAL.PDF>.
- ^{xxxvi} *Id.*
- ^{xxxvii} The nine Tribally-owned and operated telecommunications providers comprising the National Tribal Telecommunication Association are: Cheyenne River Sioux Telephone Authority; Fort Mojave Telecommunications Inc.; Gila River Telecommunications, Inc.; Hopi Telecommunications, Inc.; Mescalero Apache Telecom, Inc.; Saddleback Communications; San Carlos Apache Telecommunications Utility, Inc.; Tohono O'odham Utility Authority; and Warm Springs Telecom. Associate members of NTTA include the Nez Perce Tribe and Sacred Wind Communications.
- ^{xxxviii} See Testimony provided by Mr. Godfrey Enjady, President, National Tribal Telecommunications Association. U.S. Senate Committee on Indian Affairs, Oversight Hearing on GAO Reports Relating to Broadband Internet Availability on Tribal Lands. October 3, 2018. Accessed at https://www.indian.senate.gov/sites/default/files/Godfrey%20Enjady%20%20testimony%20statement%20Final%2010-3-18_final.pdf.
- ^{xxxix} See Testimony provided by Mr. Geoffrey Blackwell, Chief Strategy Officer and General Counsel, AMERIND Risk Management Corporation. U.S. Senate Committee on Indian Affairs, Oversight Hearing on GAO Reports Relating to Broadband Internet Availability on Tribal Lands. October 3, 2018. Accessed at https://www.indian.senate.gov/sites/default/files/Geoffrey%20Blackwell%20written%20statement%20Final_SCIA_100318.pdf.
- ^{xl} *Id.*
- ^{xli} *Id.*
- ^{xlii} See U.S. Government Accountability Office. *Tribal Broadband: FCC's Data Overstate Access, and Tribes Face Barriers Accessing Funding*. September 2018. GAO-19-134T. Pg. 35. Accessed at <https://www.gao.gov/assets/700/694386.pdf>.
- ^{xliii} See U.S. Government Accountability Office. GAO Highlights. *Tribal Broadband: FCC Should Undertake Efforts to Better Promote Tribal Access to Spectrum*. November 2018. GAO-19-75 Pgs. 29-30. Accessed at <https://www.gao.gov/assets/700/695453.pdf>.
- ^{xliv} See U.S. Government Accountability Office. *Tribal Broadband: Few Partnerships Exist and the Rural Utilities Service Needs to Identify and Address Any Funding Barriers Tribes Face*. September 2018. GAO-18-682. Pg. 23. Accessed at <https://www.gao.gov/assets/700/694810.pdf>.