

A photograph of a network server room. The background is filled with rows of server racks. In the foreground, several thick blue and yellow Ethernet cables are plugged into the front panel of a server. The blue cables are connected to RJ45 ports, while the yellow cables are connected to SFP (Small Form-factor Pluggable) ports. The server panel has various labels and indicators, including '100 Link/Act', '1000 Link/Act', and 'FX PWR'. The overall lighting is a cool blue, typical of server rooms.

Broadband Task Force

Meeting 1

June 19th 2019

Task Force Timeline

Agenda Topics	June 19th	July 17th	Aug 28th	Sept 25th
Goals & Objectives	X	X	X	X
Commerce Resources	X	X	X	X
Mapping Options	X	X	FINAL	
Broadband Technologies	X			
Broadband Transmission & Options		X	X	
Examples - Other States	X			
Examples - Other Cities	X			
Examples - Idaho Statewide Approaches		X		
Examples - Idaho Cities		X		
Consumer & Company Views	X	X	X	
Legislator Views	X	X	X	
Funding Options		X	X	
Discussion for Recommendations		X	X	
Preliminary Recommendations (p.m.)			X	
Final Recommendations (a.m.)				X
Presentation of Recommendations to Governor (p.m.)				X
Press Release with Governor's Office				X
Next Steps				X

Session 1

Session 1: Overview of Technologies 10:00am – 11:00am

Moderator: Gordon Jones

This session will involve ISPs on the task force to give a brief overview of their technology. This session will be a group discussion around the table and each provider will have the chance to highlight what their company is doing in terms of technology for broadband. The moderator will keep things on track and on schedule and make sure the appropriate questions are being asked. Time permitting, the moderator may open up the discussion outside of service providers, and other task force member questions.

Participants:

Milt Doumit	Verizon
Paul Desaulniers	Century Link
Tara Thue	AT&T
Steven Gerber	Charter
Guy Cherp	Cox Communications
Jessica Epley	Frontier Communications
Cheryl Goettsche	Cable one
Greg Lowe	Syringa
Dyna Meade	Viasat
Kari Saccomanno	Ting
Mike Kennedy	Intermax
Daryl Quesada	FatPipe
Dan Greig	Farmers Mutual Telephone
Jacob Larsen	Safelink Internet
Jim Blundell	T-Mobile

Topics for discussion:

- Each ISP to give an overview of their technology related to broadband in Idaho
- How their specific technology will help better serve Idaho for broadband
- What future technologies are coming out to better serve Idaho for broadband
- What current technology limits ISPs from providing adequate broadband for Idaho
- What are current threats for technology in Idaho for better access for broadband
- What current opportunities are available for better access for broadband in Idaho

Session 2

Session 2:

Existing Service Maps & Resources

11:00am – 11:30am

This session will have Idaho Commerce give an overview of current resources and maps, including the Idaho Commerce broadband website, speed test, FCC mapping and broadbandnow.com data. Michael Mattmiller will give an overview of how Microsoft maps broadband speed and how it differs from the FCC and broadbandnow.com data. Director Kealey will also give a few asks at the end of the session regarding to mapping and data from task force members

Participants:

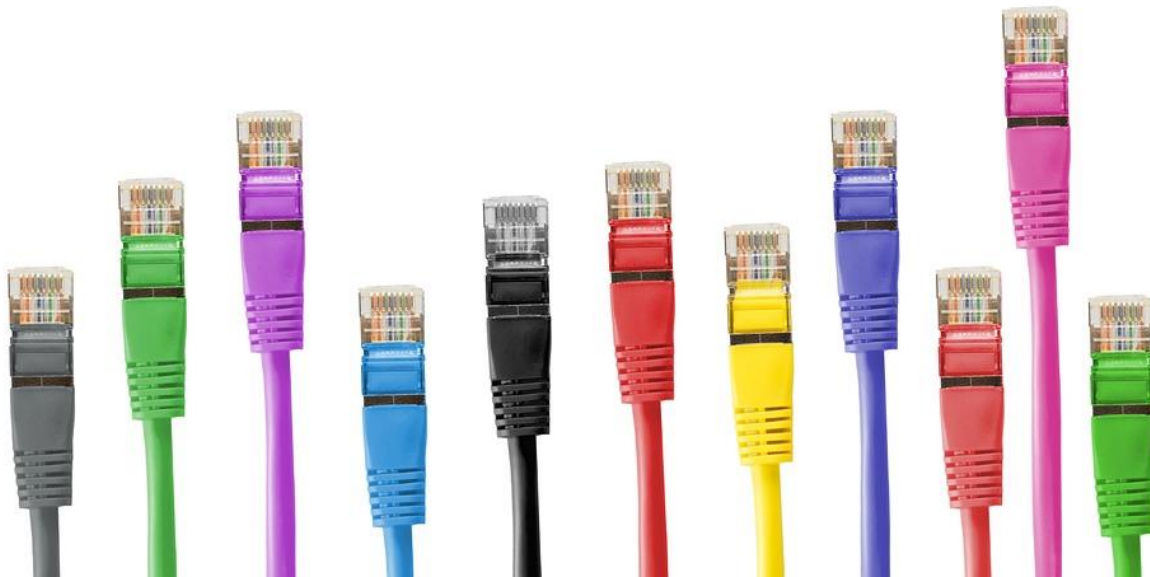
Jake Reynolds	Idaho Commerce
Rylon Hofacer	Idaho Commerce
Michael Mattmiller	Microsoft

Topics for discussion:

- Jake Reynolds will give brief overview of Idaho Commerce Broadband website
- Rylon Hofacer will give an overview of data from FCC and broadbandnow.com
- Michael Mattmiller will give an overview of the Microsoft application
- Director Kealey will give some follow up action items for mapping and data

Where Does Idaho Rank in Internet Access?

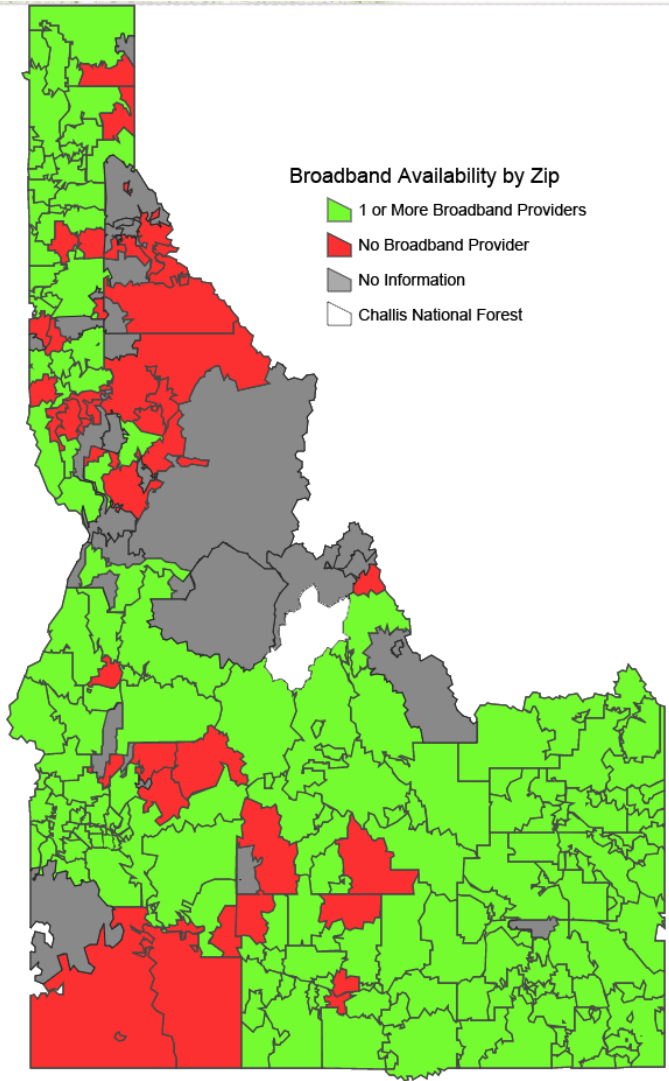
- 4th slowest state (Speedtest.net (Ookla), 2018)⁴
- 95th slowest city – *Boise* (Speedtest.net (Ookla), 2018)⁴
- 51st in internet speed (Broadview Networks, 2017)⁵
- 6th in internet access (U.S. News, 2019)²
- 37th in internet connectivity (BroadbandNow, 2018)¹





FCC's Broadband Definition and BroadbandNow Data

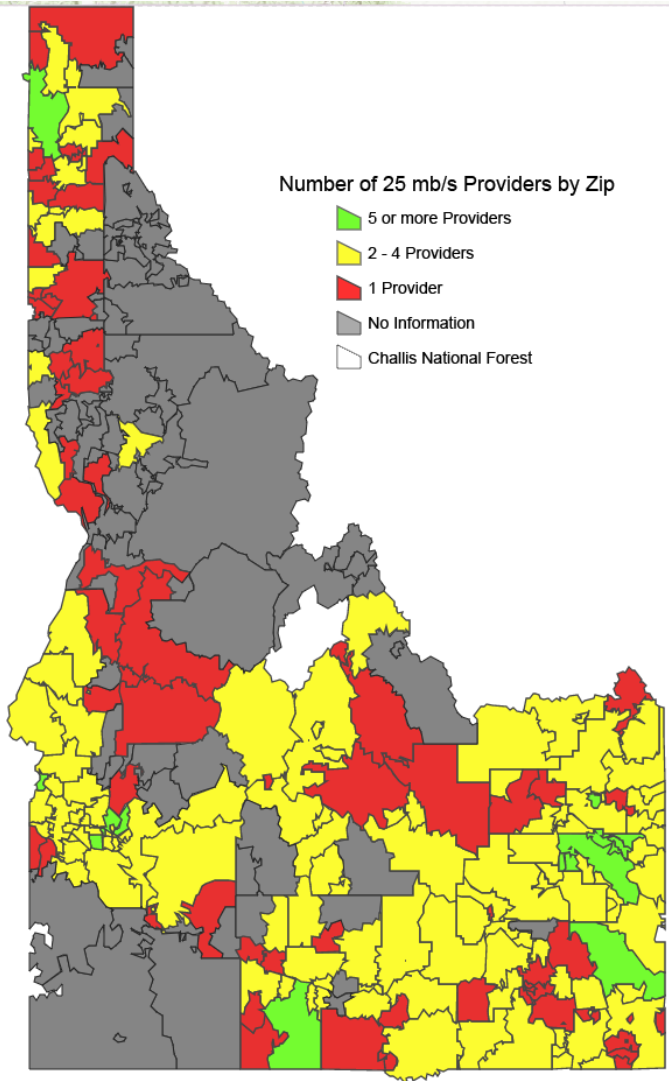
- Broadband is categorized as download speeds of 25 mb/s and greater and upload speeds of 3 mb/s and greater (Federal Communications Commission, 2018)³
- BroadbandNow is a website focused on giving consumers information on Internet service providers in their area
- Maps created for this presentation used Idaho-specific variables from BroadbandNow's proprietary dataset, including download speeds and 25 mb/s service providers



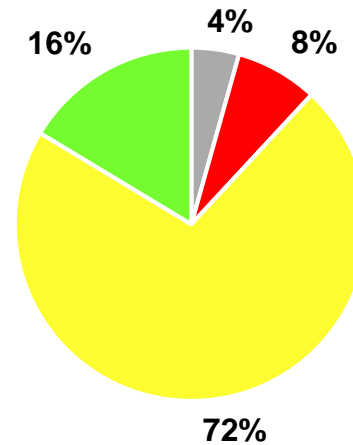
Broadband Availability in Idaho Zip Codes

- Zip codes with a download speed and population value were included in the map
- 201 Idaho zip codes have at least one provider offering broadband internet
- 44 Idaho zip codes have no providers offering broadband internet

Number of 25 mb/s Internet Providers in Idaho Zip Codes



% Population by Category

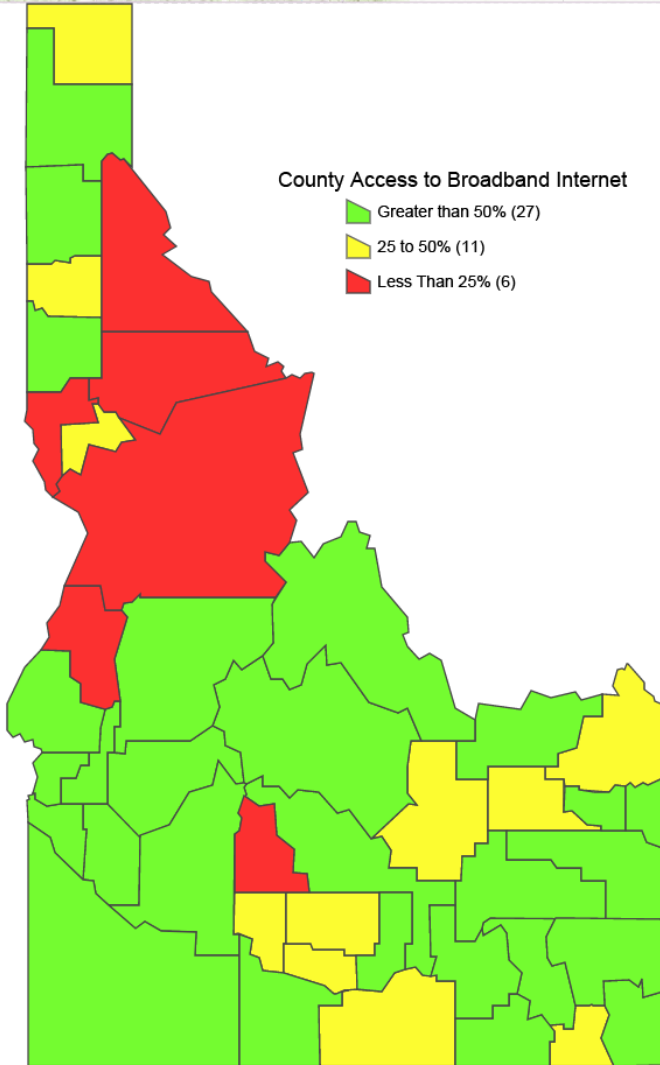
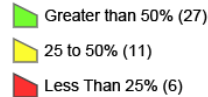


- 118,265 Idahoans live in zip codes with only one 25 mb/s provider
- 1,123,859 Idahoans live in zip codes with two to four 25 mb/s provider
- 256,374 Idahoans live in zip codes with more than five 25 mb/s providers

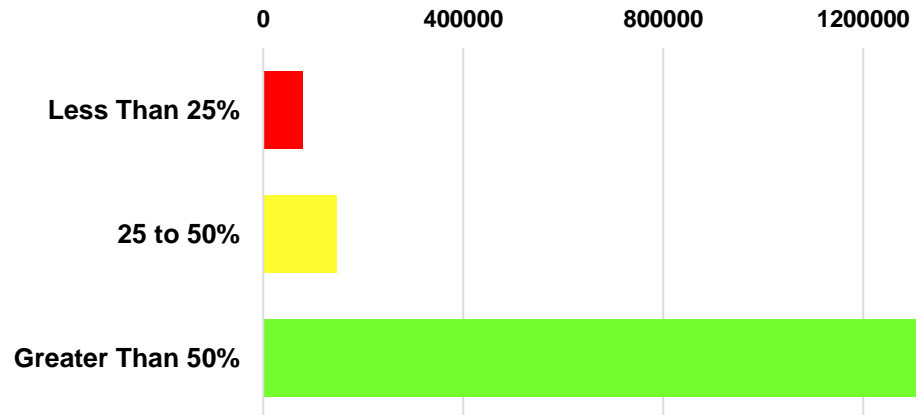
Providers by zip: Broadbandnow.com/data; population data: 2010 US Census

Access to Broadband Internet in Idaho Counties

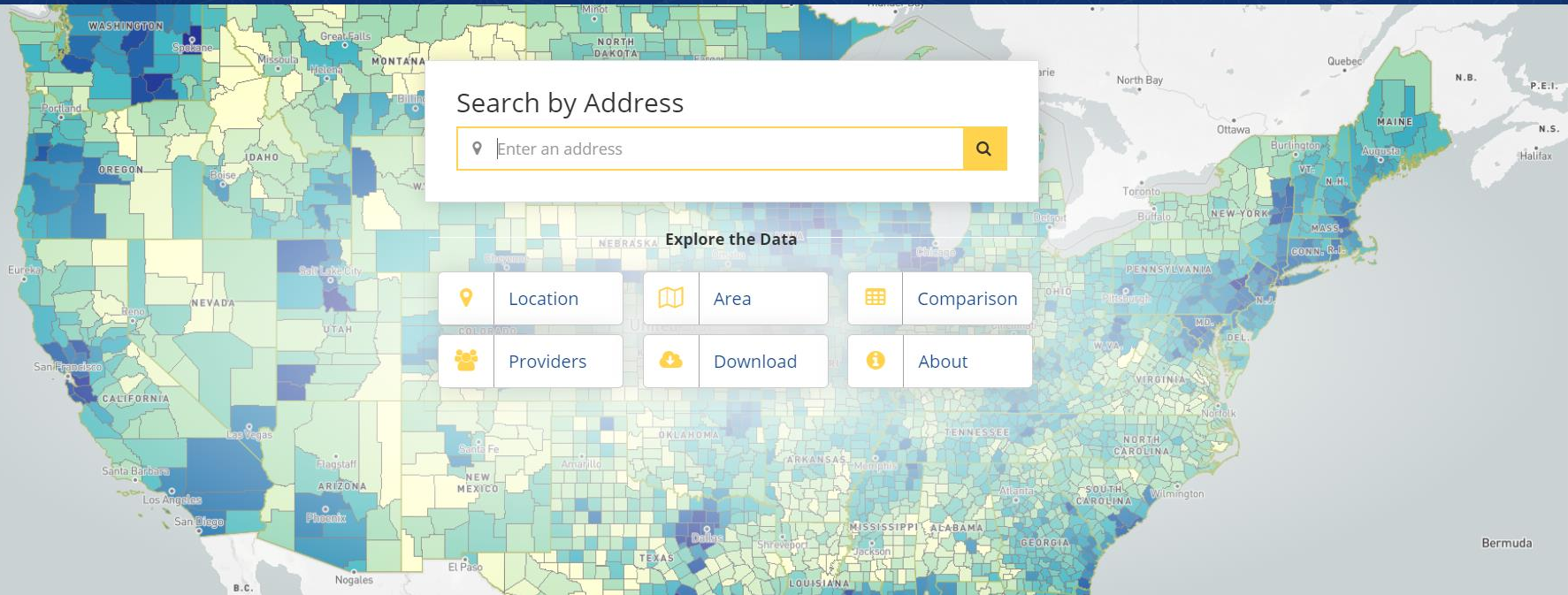
County Access to Broadband Internet



County Population with Broadband Access



- County categories were created from the percentage of zip code populations with access to broadband internet
- 6 Idaho counties have less than a 25% access to broadband internet: Adams, Camas, Clearwater, Idaho, Nez Perce, and Shoshone
- 225,370 Idahoans live in counties with less than 50% zip code average access to broadband internet



FCC Fixed Broadband Deployment Map

- Quick assessment of broadband capability
- Searchable by address, county, congressional district, state, and tribal area
- Data are 2017 values
- Compiled from FCC Form 477 submissions

Federal Communications Commission
Fixed Broadband Deployment

Home Location Summary Area Summary Area Comparison Provider Detail Data Download About

Address 700 West State Street, Boise, Idaho 83702, Ur

All Providers Reporting Service
Census block ID: 160010001001047

Number of Fixed Residential Broadband Providers
0 1 2 3 4 6 12 or more

Broadband
Technology ADSL, Cable, Fiber, Fixed Wireless, Satellite, Other
Speed ≥ 25/3 Mbps
Date Dec. 2017 (latest public release)

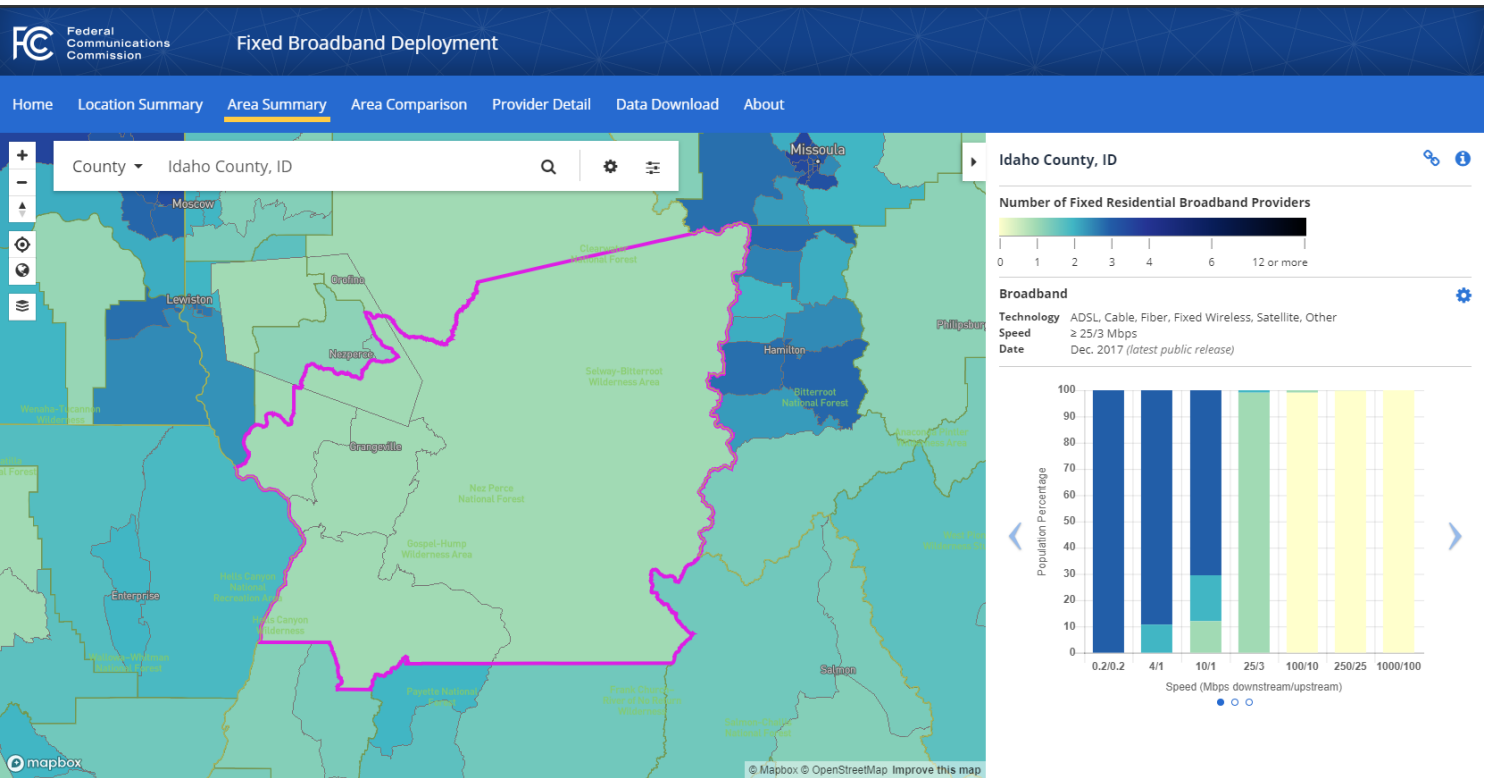
Provider	Tech	Down (Mbps)	Up (Mbps)
Cable One, Inc.	Cable	1000	50
dishNET Holding, LLC	Satellite	25	3
CenturyLink, Inc.	ADSL	20	2
JAB Wireless, Inc.	Fixed Wireless	5	1
ViaSat, Inc.	Satellite	5	1
VSAT Systems, LLC	Satellite	2	1.3

mapbox
© Mapbox © OpenStreetMap. Improve this map

FCC Address Output

- Information in Census blocks
- Gradient map of fixed residential providers
- Table with providers, delivery technology, and available speeds





FCC Area Summary

- Searchable by county, state, congressional district, census place, and tribal area
- Gradient chart of percent of population with access to fixed residential providers
- Table with providers, delivery technology, and available speeds



References Cited

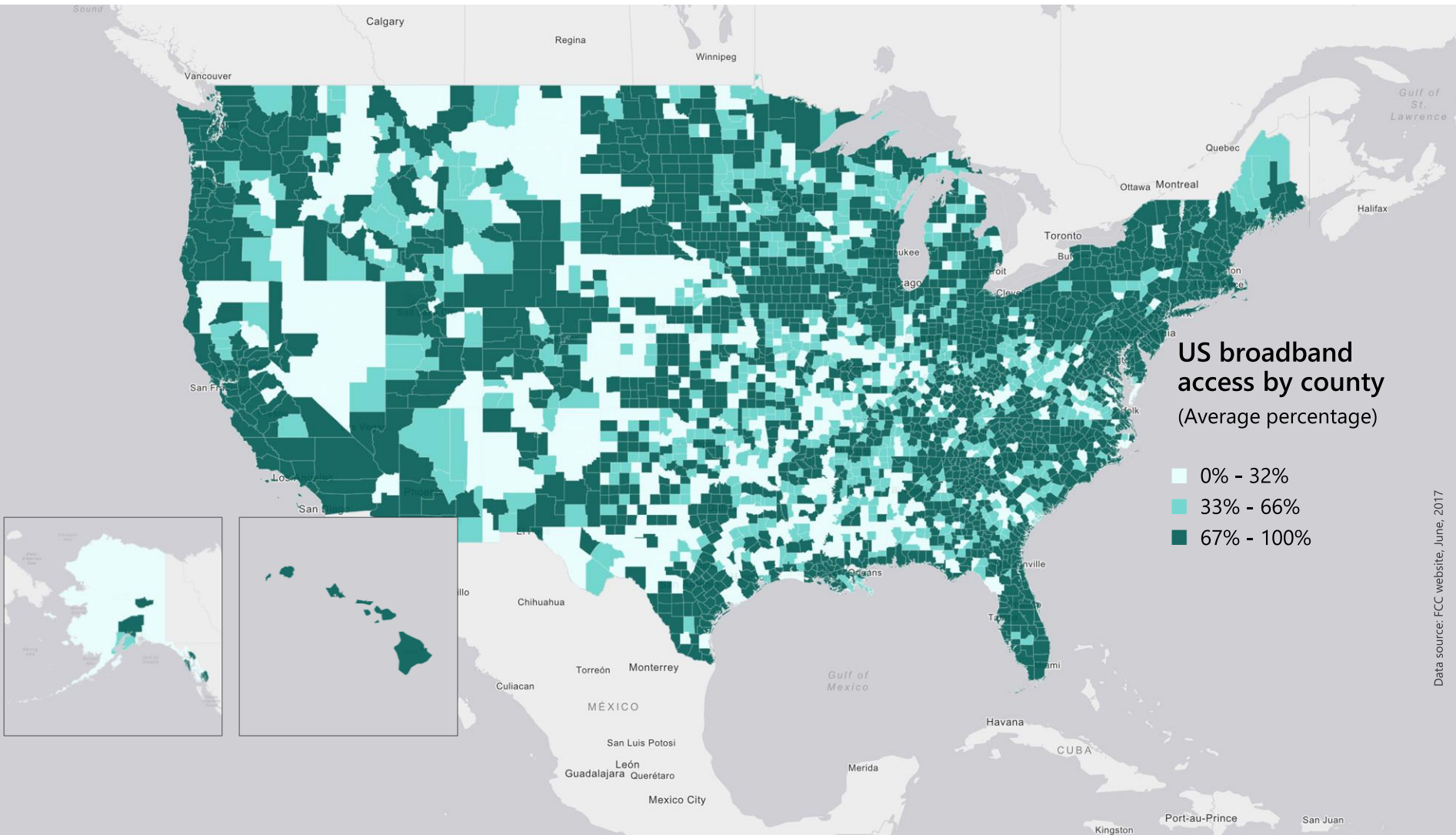
1. BroadbandNow Team. (2018). Report: US States With the Worst and Best Internet Coverage 2018. Retrieved from <https://broadbandnow.com/report/us-states-internet-coverage-speed-2018/>.
2. Clarke S. Best States for Internet Access. *U.S. News & World Report*. January 16, 2019. <https://www.usnews.com/news/best-states/slideshows/best-states-for-internet-access>.
3. Federal Communications Commission. (2018). 2018 Broadband Deployment Report. Retrieved from <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2018-broadband-deployment-report>.
4. Speedtest. (2018). 2018 United States Speedtest Market Report. Retrieved from <https://www.speedtest.net/reports/united-states/#fixed>
5. Yeager N. Which State Has the Fastest Internet? March 9, 2017. <https://www.broadviewnet.com/blog/2017/03/which-state-has-the-fastest-internet#authorInfo>.

An aerial photograph of a rural landscape at sunrise. The scene is filled with mist and sunbeams (crepuscular rays) streaming down from the horizon. The landscape features rolling green hills, scattered trees, and several houses. A road winds through the scene, and a large field of crops is visible in the foreground. The overall atmosphere is peaceful and serene.

Identifying the Rural Broadband Gap

Michael Mattmiller

The Problem



**FCC data likely
underreports
those without
broadband**



THE WALL STREET JOURNAL.

Rural America Is Stranded in the Dial-Up Age

High costs and lack of access to broadband service prevent residents of far-flung communities from joining the modern economy

By Jennifer Levitz and Valerie Bauerlein

Photographs by Nick Schnelle for The Wall Street Journal

June 15, 2017 10:10 a.m. ET

CALEDONIA, Mo.—Jeanne Wilson Johnson raises sheep and angora goats, and to sell the wool and mohair online she drives 4 miles to the parking lot of Roy’s gas station, the closest spot for decent internet access.

At her 420-acre farm, Ms. Johnson pays \$170 a month for a satellite internet service too slow to upload photos, much less conduct business.

As in many rural communities, broadband here has been limited to both speed and

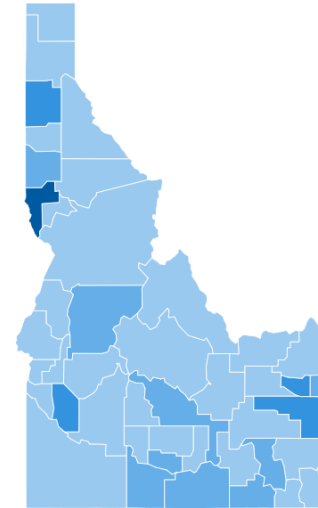
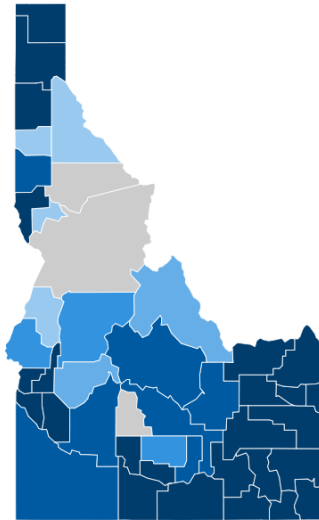


Credit: Nick Schnelle

Maps showing FCC fixed broadband availability and broadband usage based on Microsoft data Idaho

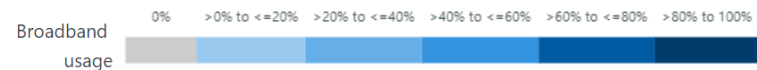
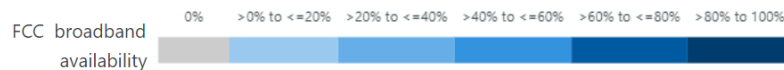
FCC indicates broadband is not available to 190K people

Microsoft data indicates 1.1M people do not use the internet at broadband speeds



* FCC fixed broadband has or "could" provide greater than or equal to 25Mbps / 3Mbps

Broadband speed greater than or equal to 25Mbps



Data sources: FCC 2018 Broadband Report based on Form 477 data from December 2016 and Microsoft data from September 2018

Counties with the largest gap between FCC broadband availability and broadband usage from Microsoft data

Idaho

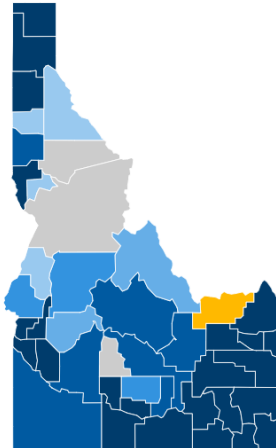
FCC Broadband availability

All counties

88.7%

Clark County

94.0%



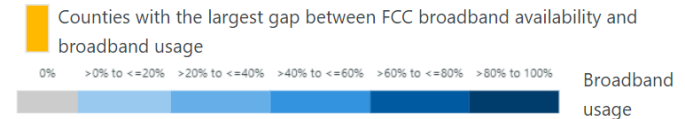
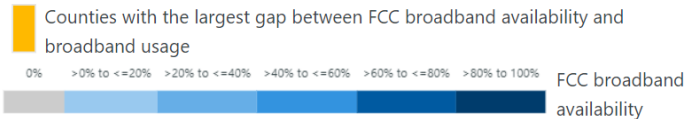
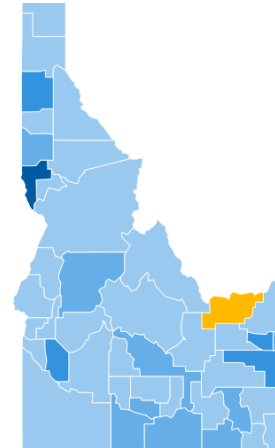
Broadband usage

All counties

32.5%

Clark County

1.3%



Data sources: FCC 2018 Broadband Report based on Form 477 data from December 2016 and Microsoft data from September 2018

Session 3

Session 3: What have other States done for Broadband

12:00pm – 1:00pm

Moderator: Jaap Vos

This session will focus on an agnostic take from representatives that cover multiple states on what has happened in states surrounding Idaho in terms of broadband. The focus should not be on company specifics, but the overall landscape of efforts in other states to increase broadband access. This could be efforts on legislation, advisory or task force efforts, broadband offices, innovative ideas, challenges and opportunities.

Participants:

Milt Doumit	Verizon
Tara Thue	AT&T
Steven Gerber	Charter
Jessica Epley	Frontier Communications
Jim Blundell	T-Mobile

Topics for discussion:

- From a legislative standpoint, what have or what are other states doing to improve broadband
- What efforts in terms of task forces or broadband offices have been done in other states
- What are surrounding states biggest challenges? Opportunities? Threats?
- What are the biggest hurdles for broadband access in other states. How does Idaho compare
- What could be replicated in Idaho to help with better broadband access in Idaho
- What should be avoided in Idaho that other states may have tripped up on
- Questions from other task force members if there is enough time

Session 4

Session 4: Cities, Counties & Tribes done for Broadband 1:00pm – 2:00pm

Moderator: Jaap Vos

This session will focus on discussion led by representatives from Idaho cities, counties and tribes focusing on what their cities and surrounding cities have done and are doing to better broadband in Idaho. Time permitting, more members of the task force should engage and ask questions and give their perspectives on their areas of service

Participants:

Michael Mattmiller	Microsoft
Kevin England	Chubbuck
Mike Fitzgerald	Shoshone County
Danae Wilson	Nez Perce Tribe
Kari Saccomanno	Ting
Jacob Larsen	Safelink Internet
Dan Greig	Farmers Mutual Telephone

Topics for discussion:

- What have or what is your area of service doing to improve broadband
- What technologies are currently available in your area and how good are they
- Describe how you have received federal or state funding for broadband in your area
- How did your area decide that broadband was a top priority, and how was it implemented?
- What are your biggest challenges? Opportunities? Threats?
- What could be replicated in other areas to help with better broadband access in Idaho
- What should be avoided in Idaho that other areas have done
- Questions from other task force members if there is enough time

Session 5

Session 5: Company, Consumer, & Legislative Perspectives 2:00pm – 2:45pm

Moderator: Randy Gaines

This session will focus on discussion led company and legislative members of the task force. Members of industry will focus their discussion points on how broadband access in Idaho affects them doing business. Legislative members will focus on how broadband access in their districts affects their constituents. All members are welcome to discuss broadband access from a general consumer standpoint as well. Time permitting, other task force members can join the conversation and ask questions.

Participants:

Michael Mattmiller	Microsoft
Pat Felzien	Micron
Steve Ehle	Simplot
Curtis Fryer	Idaho Forest Group
Robert Hampton	Jackson's
Doug Burnett	Hospitality – CDA Resort
Nancy Cyr	Idaho Power
Dana Bassett	Glanbia
Kenneth Smith	HP
Senator Nelson	Idaho Legislature
Senator Crabtree	Idaho Legislature
Representative Erpelding	Idaho Legislature
Representative Blanksma	Idaho Legislature

Topics for discussion:

- How is the broadband access for your company? For your district? For citizens/employees?
- What is the biggest hurdle your company or constituents face regarding broadband access?
- What has your company or district done to better broadband access
- How did your company/district decide broadband was a top priority, and how was it implemented?
- What are your biggest challenges? Opportunities? Threats?
- What could be replicated in other companies/districts to better broadband access in Idaho
- What should be avoided or what mistakes could be avoided

Broadband Task Force Meeting

Meeting 2 – Twin Falls, Idaho

July 17th, 2019

Time	Topic	Lead
10:30am	Review of Goals and Objectives - Housekeeping	Director Kealey
	Mapping Update/Outside Service Providers	Jake Reynolds, Others
	Idaho State Programs	IRON, Libraries, ITD, Schools, First Net, K-12, Emergency Management, IRP
	Idaho Cities	Ammon, Sandpoint, Mountain Home, McCall, Rural Telcos
	Broadband Transmission Options	Consumer Owned Electricity, Rocky Mountain, Idaho Power, Avista, ITD, Microwave, 5G
	Lunch	
	Ranking Services – Idaho Rankings	Ookla, U.S. News, Others
	Citizen Perspectives	Association of Cities Association of Counties
	Funding Sources and Experts	FCC, USDA, State Broadband Judicial Confirmation (LID)
	Discussion about Recommendations	Facilitators and Group
4:30pm	Adjourn	

Broadband Task Force Meeting

Meeting 3 – Coeur d'Alene, Idaho - TBD

August 28th, 2019

Time	Topic	Lead
9:30am	Review of Goals and Objectives - Housekeeping	Director Kealey
	Final Mapping with Priorities for "Closing the Gap"	Jake Reynolds, Others
	Discuss Approach for Developing Conclusions and Recommendations	Facilitators
	Breakout Session for Team: Preliminary Recommendations	Facilitators
	Review Breakout Session Priorities	Facilitators
	Lunch	
	Breakout Session with Different Requests & Teams	Facilitators
	Prioritize Preliminary Recommendations from Breakouts	Facilitator & Group
	Draft Outline – Preliminary Recommendations	Facilitator & Group
	Follow up Assignments for Commerce Staff & Others	Director Kealey
3:30pm	Adjourn	

Broadband Task Force Meeting

Meeting 4 – State Capitol Building - Boise
September 25th, 2019

Time	Topic	Lead
9:00am	Review of Goals and Objectives - Housekeeping	Director Kealey
	Mapping Update	Jake Reynolds, Others
	Preliminary Recommendations	Facilitator & Group
	Preliminary Recommendations (continued)	Facilitator & Group
	Final Recommendations	Facilitator & Group
	Lunch	
	Presentation of Recommendations to Governor	Director Kealey & Task Force
	Discussion – Q&A	Governor & Group
	Next Steps	TBD
	Thank you & Awards	Governor & Director (TBD)
3:00pm	Adjourn	




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COMMERCE